

ORACLE

# APEX Day in Paris

Bienvenue

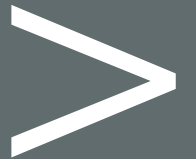
En partenariat avec



En collaboration avec



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# APEX Day in Paris

Bienvenue



**Patrick Le Martret**  
Technology Marketing Director, Oracle

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# Agenda | APEX Day in Paris

## Matinée



|                |                                                                                                                                                                                                                                 |                                                                                                                                              |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 10h00<br>11h00 | <b>Session d'ouverture Oracle APEX</b><br><i>Simon Hunt, Head of Product Management, Oracle APEX, Oracle Corporation</i>                                                                                                        |                                                                                                                                              |
| 11h00<br>11h40 | <b>Retours d'expérience clients APEX animé par Sqorus</b><br><br>> Etudes de cas : Onet Airport Services & SNCF<br><i>Adrien Laplanche, Onet Airport Services</i><br><i>Claude Sirois, SNCF</i><br><i>Aurélien Dinh, Sqorus</i> |                                                                                                                                              |
| 11h40<br>12h20 | <b>Retours d'expérience clients APEX animé par</b>                                                                                                                                                                              | <b>Talan</b><br><br>> Table ronde<br><i>Edith Poirier, Agilab</i><br><i>Pierre-Louis Giros, Allshare</i><br><i>Arnaud Buil, Transgourmet</i> |
|                |                                                                                                                                                                                                                                 | <i>Mohamed El Machtani Idrissi, Aareon</i><br><i>Damien Leveugle, Actemium</i><br><i>Louis Moreaux, Talan</i>                                |
| 12h20<br>12h30 | <b>Conclusion de la matinée</b><br><i>Mónica Godoy, Senior Principal Product Manager for Oracle APEX, Oracle Corporation</i>                                                                                                    |                                                                                                                                              |



# Agenda | APEX Day in Paris

## Après-midi



|                |                                                                                                                                                                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12h30<br>13h30 | Cocktail déjeunatoire                                                                                                                                                           |
| 13h30<br>14h20 | <b>Premiers pas avec GenDev dans APEX</b><br><i>Mónica Godoy, Senior Principal Product Manager for Oracle APEX, Oracle Corporation</i>                                          |
| 14h20<br>15h10 | <b>Nouveautés et prochaines étapes d'Oracle APEX</b><br><i>Marc Sewtz, Senior Director, Software Development, Oracle Corporation</i>                                            |
| 15h10<br>15h25 | Pause                                                                                                                                                                           |
| 15h25<br>16h15 | <b>APEX dans Git, code en texte brut – CI/CD avec APEXLang et intelligence intégrée via MCP</b><br><i>Sonja Meyer, Consulting Member of Technical Staff, Oracle Corporation</i> |
| 16h15<br>16h30 | <b>Session de clôture Oracle APEX</b><br><i>Mónica Godoy, Senior Principal Product Manager for Oracle APEX, Oracle Corporation</i>                                              |



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APEX Day in Paris

# Opening Session – APEX Overview



**Simon Hunt**

Head of Product Management, Oracle APEX, Oracle Corporation



En partenariat avec



**SQORUS**  
People And Solutions That Matter



En collaboration avec



ORACLE

# Oracle APEX

*Build AI-powered, mission-critical apps faster using APEX*

---

**Simon Hunt QVRM**

Head of Product Management (Oracle APEX)

Database Tools Division

September 2025



# Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.



## Simon Hunt QVRM

Head of Product Management Oracle  
APEX



### Experience

Oracle: 1 year  
MOD Contractor: 20 years  
British Army: 29 years



### Expertise

20 Years building Enterprise  
APEX Solutions  
29 Years - Army Officer



### Location

UK

## What is APEX?

APEX is a popular enterprise low-code application platform for building custom data-centric apps.

## The APEX Advantage

It enables you to build scalable and secure AI-powered enterprise apps with world-class features.

## Value Proposition

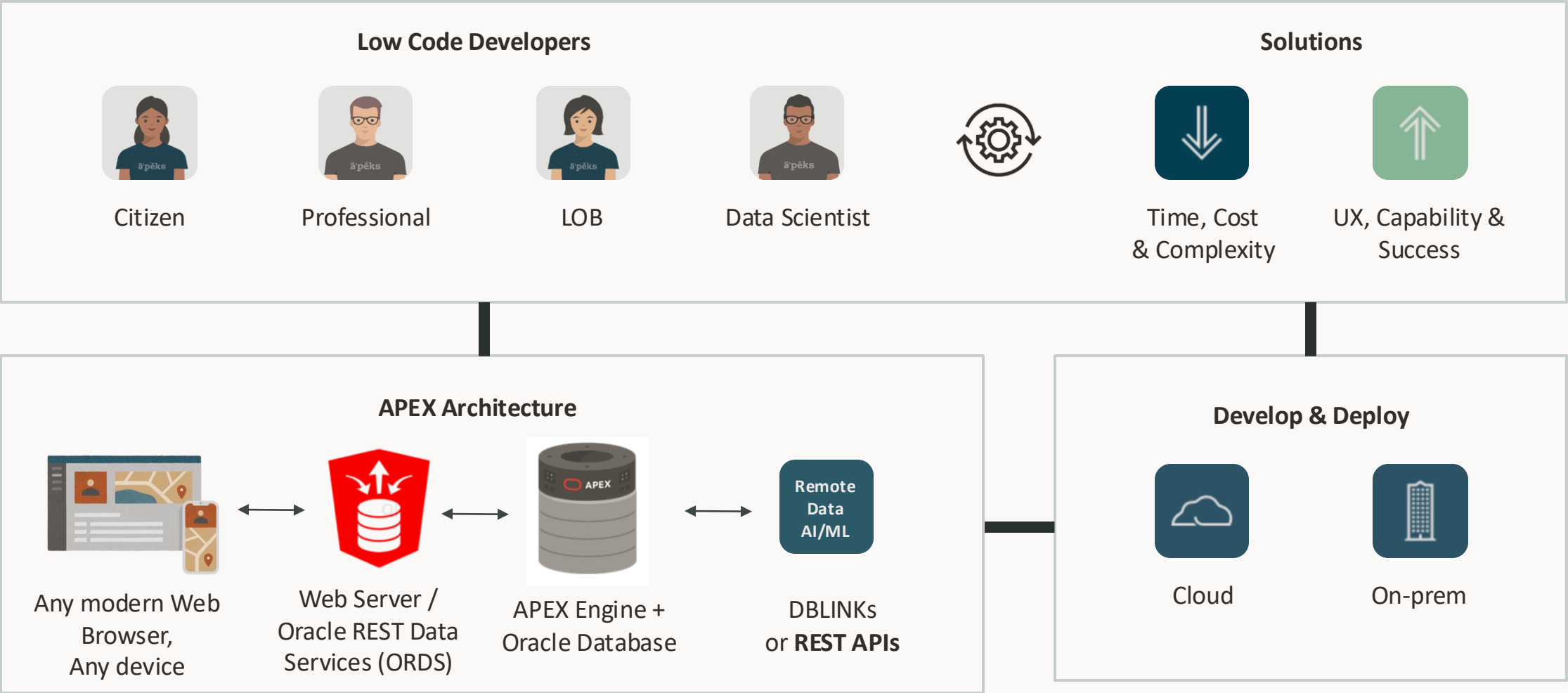
Build apps faster, with less code and minimal maintenance.

## Mission

*“to empower developers to easily build compelling apps with superior functionality, performance, and end user experience”.*

The Oracle APEX logo is displayed in white text on a dark blue background. The word "ORACLE" is in a large, bold, sans-serif font, and the word "APEX" is in a slightly smaller, bold, sans-serif font directly below it.

# Oracle APEX Low Code Application Platform



# The APEX Platform

A comprehensive and unified low-code application platform



App Builder



SQL Workshop



Team Development



Workflow



RESTful Services



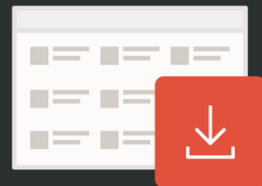
Object Browser



Data Loading



Monitor



App Gallery



DevOps Tools

**Build** powerful cloud and mobile apps using a web browser

**Import/export** data

Publish **REST APIs**

**Automate & Integrate** processes and apps

# A comprehensive and extensible low-code application platform

Object Storage

Generative AI

IAM

ODA

OAC

DocGen

API Gateway

OGL

SQLcl

SQL Developer



App Builder



RESTful Services



SQL Workshop



Workflow



DevOps Tools



Team Development

Partners

Flows (BPMN)

AOP / AME

Project Eye

LCT

ApexSec

APEX-SERT

Jenkins

Jira

Git

# Oracle APEX is Available Everywhere

## Oracle Cloud

- APEX Service
- All workload types of Autonomous Database
- Oracle Base Database Service
- Oracle Exadata Cloud Service
- **Always Free APEX Service**
- **Always Free Autonomous Database**

## On-Premises

- All Oracle editions
- Oracle Exadata
- Oracle Database Free

## Other Clouds

- Autonomous Database on Azure
- Amazon RDS for Oracle Database
- All other major clouds via VM

# Use Cases

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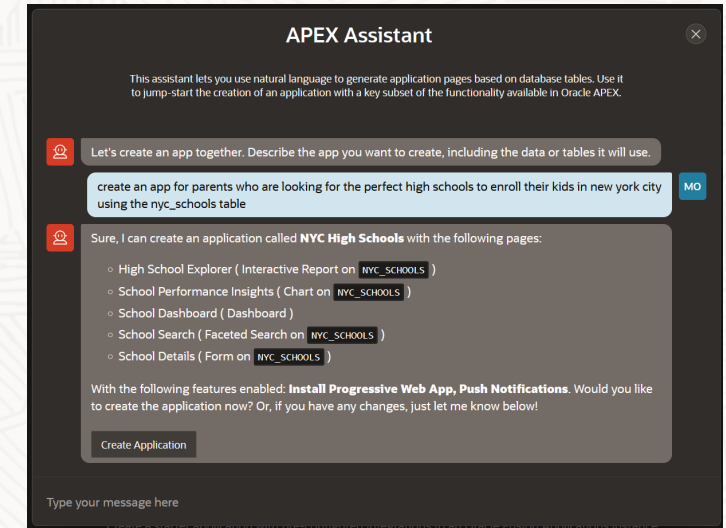


# AI Features

Boost dev speed & create intelligent apps that deliver precise, relevant responses with Gen Dev!

## ★ Benefits

- Create Apps using Natural Language
- Create Custom Data Models
- **AI-Assisted Development**
  - Seamless configuration to consume AI Services
  - AI-Assisted SQL Authoring
  - AI-Assisted Debugging
- Provide RAG Data for AI Calls
- Conversational AI Dialogs
- Vector Search Support



Natural Language



APEX Application



# Replace Spreadsheets to Web Apps in Minutes

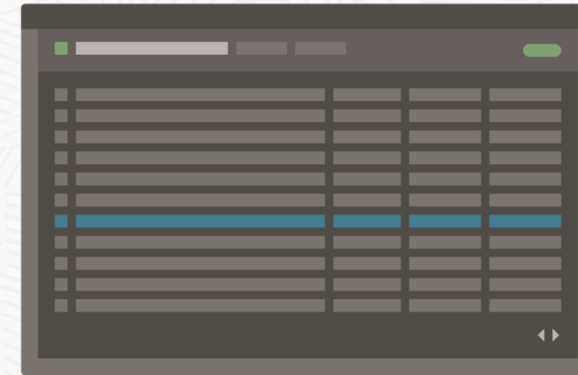
Upload your spreadsheet and convert it into a cloud application with a few clicks!

## ★ Challenges

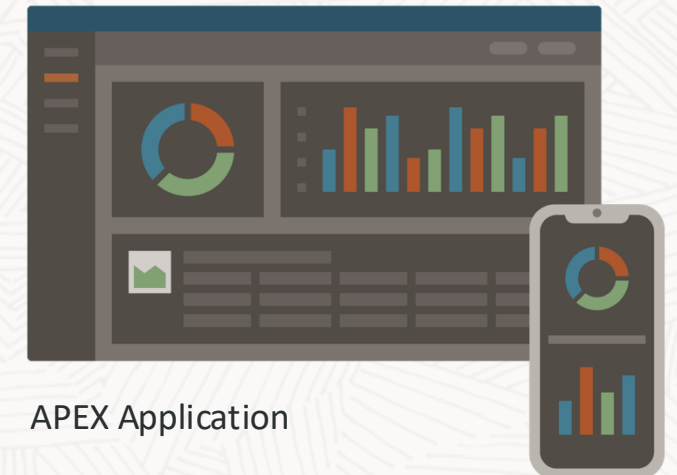
- Almost every organization utilizes spreadsheets to disseminate and report on data.
- Spreadsheets are so easy to create, easy to share, but lead to flawed business processes.
- No security control to update or delete information.

## ✓ Solutions

- Single source-of-truth
- Send out a URL, not a file
- Secure, scalable, multi-user app
- Extend with Charts, Calendars, Validations, and more



Spreadsheet



APEX Application

# Rapid Application Development

Build new business and productivity apps

## ★ Features

- Build apps in days/weeks not months/years
- Use powerful wizards to create fully featured apps
- Easily modify to meet changing requirements
- Rapidly iterate to a production-ready app
- Low-code capabilities allow non-IT professionals to also build or help build apps

## ✓ Solutions

- Opportunistic
- Simplistic, tactical apps to meet immediate need
- Webify paper processes
- Generally developed by one or two people



# Modernizing Oracle Forms

Evolve your Forms Apps to APEX apps and unlock limitless possibilities!

## ★ Challenges

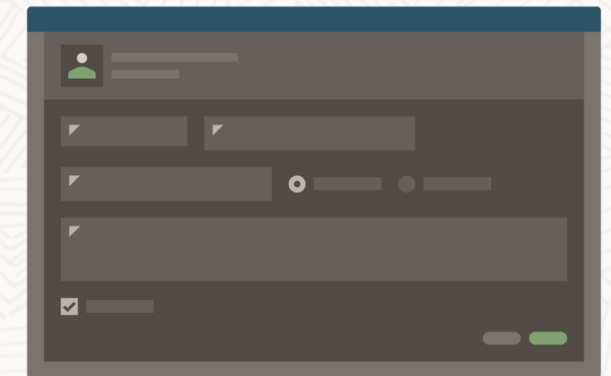
- Oracle Forms is Oracle's long-established technology for designing and building enterprise applications quickly and y and efficiently.
- Requires a license that increases development costs.
- Lack of enterprise app development (AI Services, charts, workflow, REST Services).

## ✓ Solutions

- Proof-of-concept using the subset of Forms apps
- Organization-wide apps, rather than back-office
- External apps for customers/partners
- Mobile-first apps
- Net new requirements



Forms App



APEX Application

# Extending Enterprise Systems

Enhance your existing apps by building APEX apps!

## ★ Challenges

- Extend ERPs and other enterprise software
- Provide organization-specific dashboards
- Improved workflows
- Fill gaps
- Create custom apps (Improve retail and manufacturing processes)

## ✔ Solutions

- Meet non-standard requirements
- Working with MySQL, OData, Fusion Apps and Arbitrary REST Services
- REST Catalogs (Including Ones Automatically Created from OpenAPI)
- One Click Integration - REST Data Synchronization
- Easily Blend Remote Data with Local Data



# Mission Critical Enterprise Systems

Quickly build custom mission-critical apps and scale to hundreds of thousands of users



## ★ Business Challenges

- Looking to improve its delivery processes, operational efficiencies, and data quality for its Project Delivery Center (PDC), which monitors clinical trials and helps drive success for customers.
- They also wanted to speed up the development and maintenance cycle times.

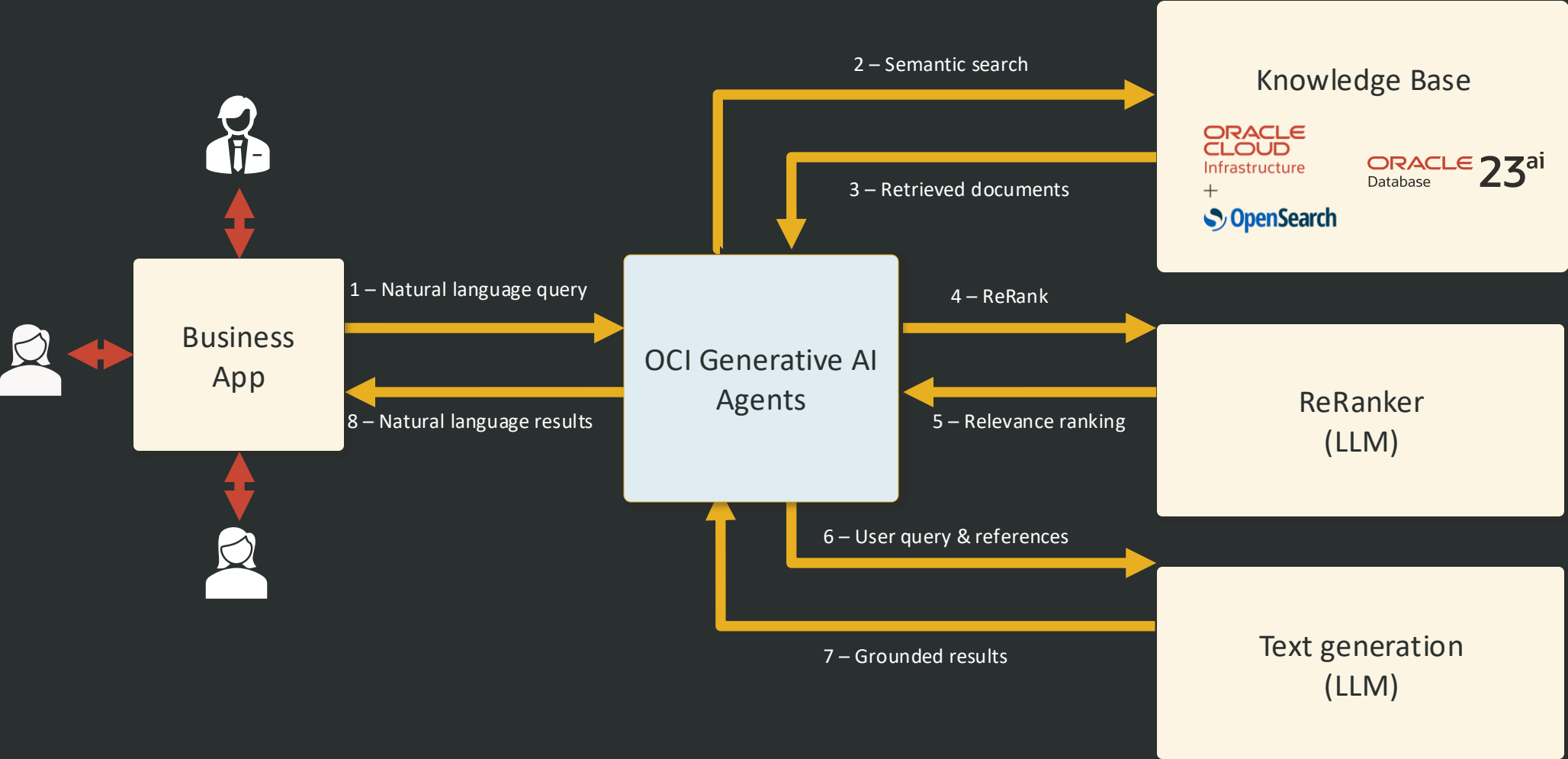
## ✓ Results

- By developing its own platform, Syneos Health could better monitor its deliveries, thus improving customer service.
- The PDC application can **scale** to thousands of users and projects for key clinical study monitoring information.
- Syneos Health saved significant costs over the course of five years, through more efficient operations and reduced application management effort.

# OCI AI Features

---

# OCI Generative AI Agents



# OCI Vision Service

Object detection

Identifies objects and their location within an image along with a confidence score

Image source

Local file  
Upload an image from local file. ✓

Object storage  
Paste the object storage URL of image.

Upload image

Drop a file or [select one...](#)  
Upload image

Results

| Label | Confidence |
|-------|------------|
| Taxi  | 97.90%     |
| Taxi  | 97.46%     |
| Taxi  | 97.38%     |
| Taxi  | 96.66%     |
| Taxi  | 89.86%     |
| Taxi  | 87.73%     |

Show more

Request

```
JSON
{
  "compartmentId": "ocid1.compartm",
  "image": {
    "source": "INLINE",
    "data": "....."
  },
  "features": [
    {
      "featureType": "OBJECT_DETECTION",
      "maxResults": 50
    }
  ]
}
```

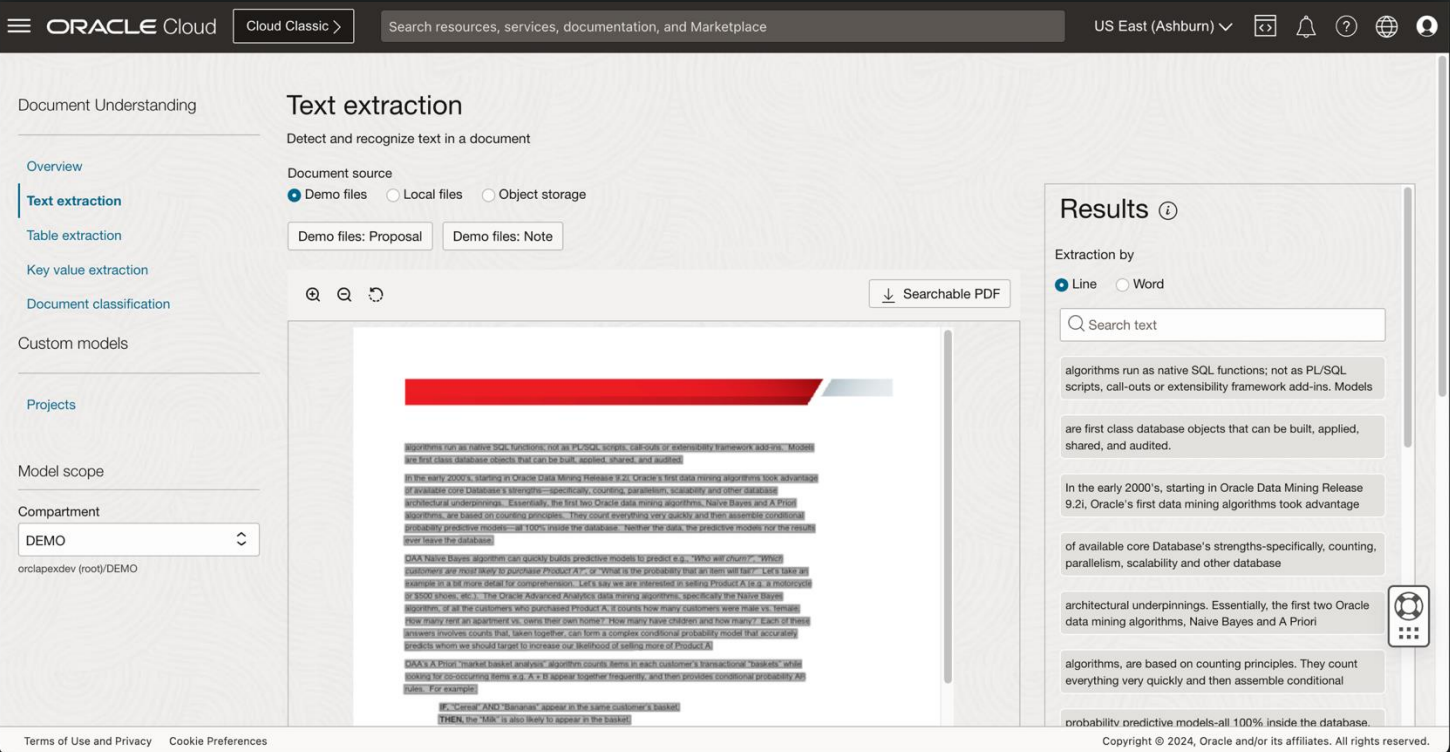
**Pre-trained and customizable**  
computer vision models for image  
analysis

**Fully managed** model infrastructure

Complete integration with OCI Data  
Labeling simplifies building **custom**  
**models**

Lab: [apex.oracle.com/go/oci-vision-lab](https://apex.oracle.com/go/oci-vision-lab)

# OCI Document Understanding



Upload documents to **detect and classify text and objects** in them.

**Serverless, multitenant service**, accessible using the Console, REST APIs, SDK, or CLI.

Process individual files or batches of documents using the **ProcessorJob API endpoint**

Lab: [apex.oracle.com/go/du-lab](https://apex.oracle.com/go/du-lab)



# OCI Speech

A

SUCCEEDED

AudioVoiceover\_Video.mp4

Download JSON

Download SRT

Task information

General information

Description: AudioVoiceover\_Video.mp4

OCID: ...h9c2qg8a8    [Show](#)    [Copy](#)

Started on: Thu, Jun 26, 2025, 10:22:12 UTC

Finished on: Thu, Jun 26, 2025, 10:22:28 UTC

File duration: 2m 53s

File size: 75.20 MB

Processing time: 17s

Data

Input object: ...rVoiceover\_Video.mp4    [Show](#)    [Copy](#)

Output object: ...rVoiceover\_Video.mp4.json    [Show](#)    [Copy](#)

Media information

Encoding: MP4

Format: MP4

Number of channels: 2

Sample rate: 44,100 Hz

Transcription information

Language: English [US]

Model type: Oracle

Domain type: Generic

Transcription result

[Show JSON](#)

Hello and welcome to Oracle, Apex developer. Professional learning path lesson understanding Apex workflows. My name is shafiq Shiva, and I am product manager for Oracle Apex product development team. So let's get started in this lesson. We are going to understand about what is an Apex workflow. Then we will learn the difference between workflow definition and workflow instance. And at the end of this lesson, we will have a demo on how to create your 1st Apex workflow. So let's 1st understand what is an Apex workflow. An Apex workflow is an automation of a business process in which documents, information and tasks are passed from one participant to another, according to a set of procedural rules. In Apex workflow we have various advantages. 1st, we get a visual drag and drop workflow builder. Also, we get a built in support for tasks, approval and notifications. Now let us understand the difference between workflow definition and workflow instance. A workflow definition is a blueprint or template that describes a specific business process. Let's take an example of a laptop request. Here, the employee submits the request. The request is reviewed by the manager, then the department confirms the availability, and then it's sent for the final approval. In workflow definition, we have defined rules, what all data is required and what all actions that needs to be taken care. 2nd let us understand about workflow instance. A workflow instance is a specific execution of that blueprint at a particular point in time. Let's continue with the same laptop request here. Alice raises a laptop request. It goes to her manager, Bob, for the approval. Once approved, the IT department checks the availability. If available, the request get finally approved, and this is the running instance of a laptop request process which is specific to Alice. And now you have learned the basic concept of workflow. Let's move to the demo, where we will create our 1st Apex workflow. For that, let's navigate to the browser, go to the app builder, open your application, then navigate to the shared components in the shared component. Scroll down under the workflows and automation section. Click on workflows. Then click on create. It will open the diagram builder here. Under the activities section, there are various activities. You can just drag and drop the activities, and now you are ready to start with your 1st Apex workflow. So that's all from this lesson. Hope you have learned something useful today. See you in the next lesson. Thank you.

Speech

Overview

Transcription jobs

Live transcribe

Customizations

List scope

Compartment

Jobs in DEMO Compartment

1

Speech service prerequisites

[Show more](#)

Create job

Delete

Search by name

| <input type="checkbox"/> | Name       | Status    | Tasks processed (Completed/Total) | Created by                                            | Job accepted date               | Job duration |  |
|--------------------------|------------|-----------|-----------------------------------|-------------------------------------------------------|---------------------------------|--------------|--|
| <input type="checkbox"/> | OCI SPEECH | Succeeded | 1/1                               | ...acle.com <a href="#">Show</a> <a href="#">Copy</a> | Thu, Jun 26, 2025, 10:22:06 UTC | 22s          |  |

**Prebuilt** acoustic and language models

**Analyze** data from audio and video files

**OCI Speech ASR** transcribes audio in English, Spanish, Portuguese, German, French, Italian, and Hindi.



# OCI Digital Assistant

OCI Digital Assistant - Integration - APEX with ODA Draft - 1.1 - 23.12

Validate Findings Train Preview

**Skills (1)** Test utterances

+ Add Skill

Oracle APEX Integration - 1....

Oracle APEX Integration

Go to Skill Update Skill

**General Information**

Display Name  
Oracle APEX Integration

Name  
OracleAPEXIntegration

Status  
Draft

Version  
1.0

Platform Version  
23.10 (Active)

Languages Added for This Skill  
English

One-sentence Description  
This Digital assistant is created to seamlessly integrate Oracle APEX with ODA

Description  
This Digital assistant is created to seamlessly integrate Oracle APEX with Oracle Digital Assistant AI service.

Enabled  
☒

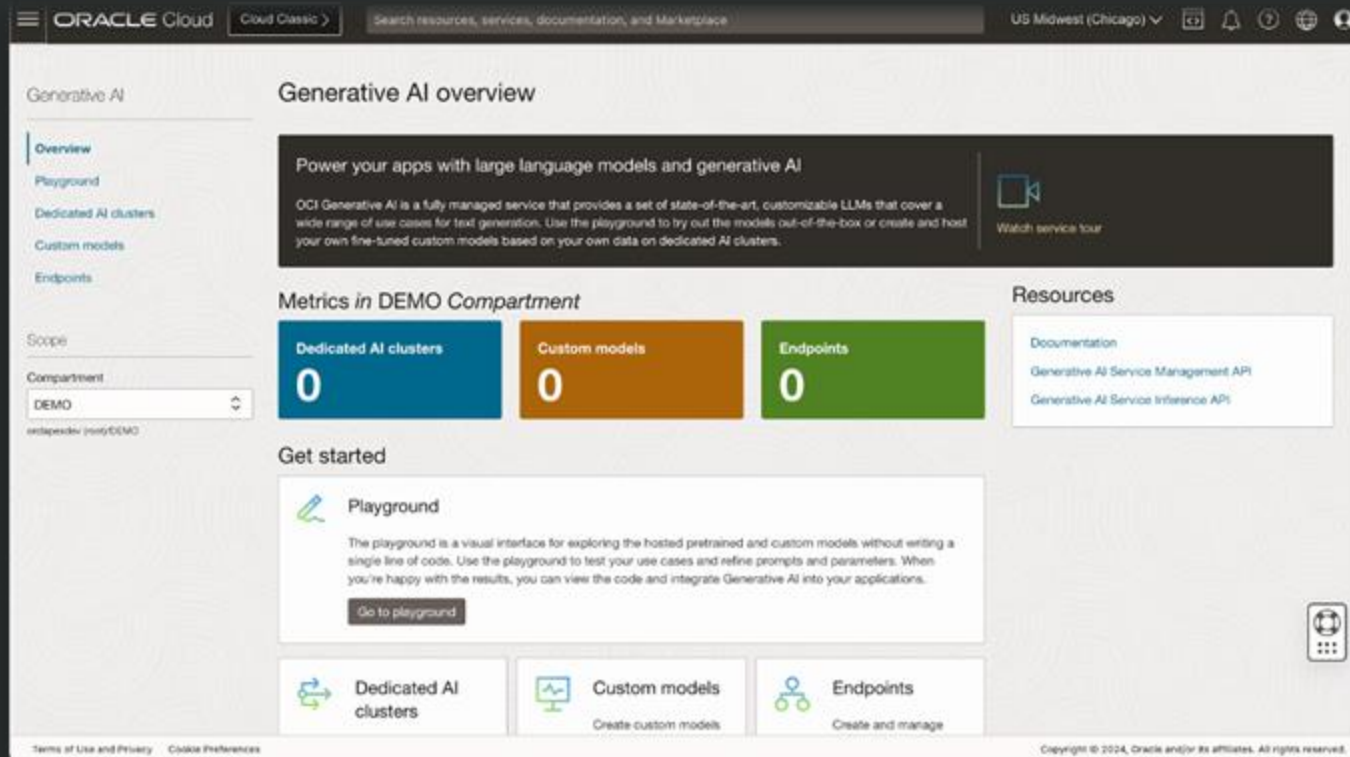
**Comprehensive AI Platform** to create conversational experiences

Advanced **Natural Language Understanding**

**Pre-Built** Skills & Templates



# OCI Generative AI



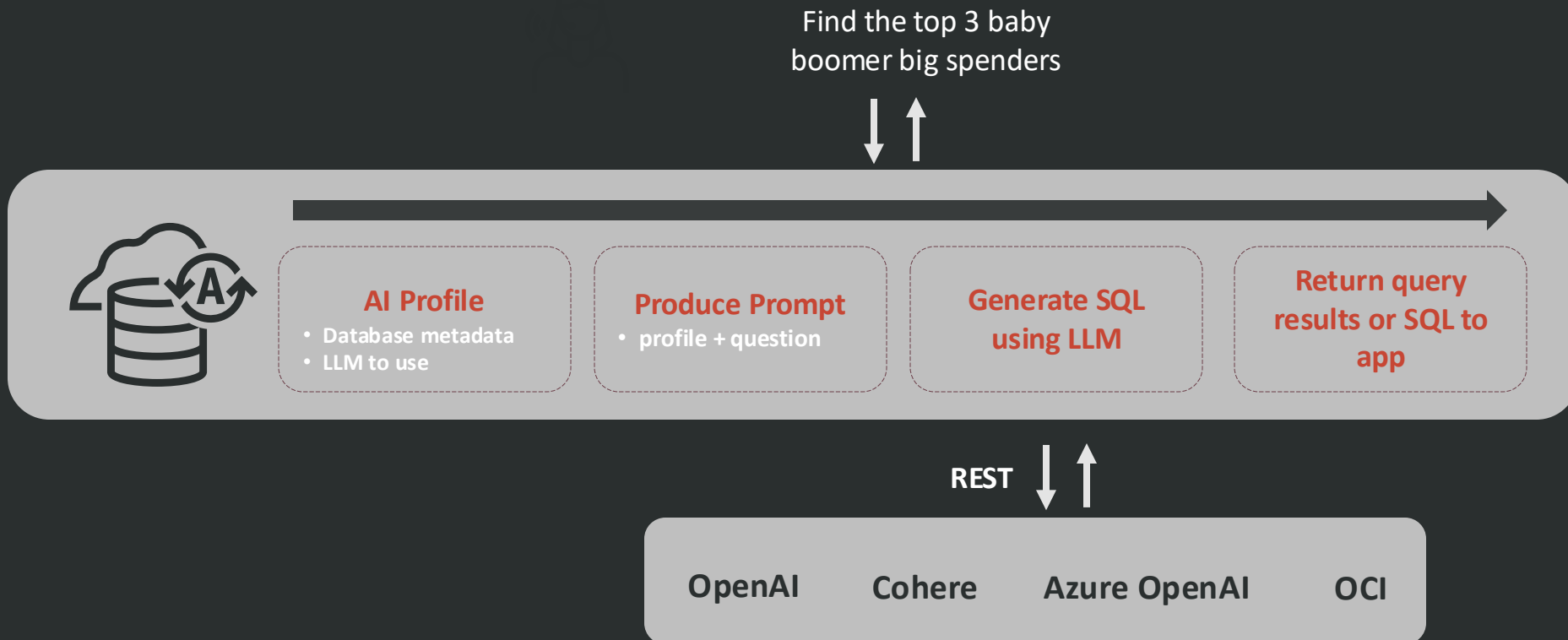
**Fully managed** Generative AI Service

**Enterprise-grade generative AI** with data governance and security

**Pretrained** out-of-the-box LLMs

Lab: [apex.oracle.com/go/nyc-genai](https://apex.oracle.com/go/nyc-genai)

## Select AI – validate text



- A feature of **Autonomous Database**
- **Generates SQL Queries** using Natural language
- Use **human language** to query data

# APEX & Gen AI

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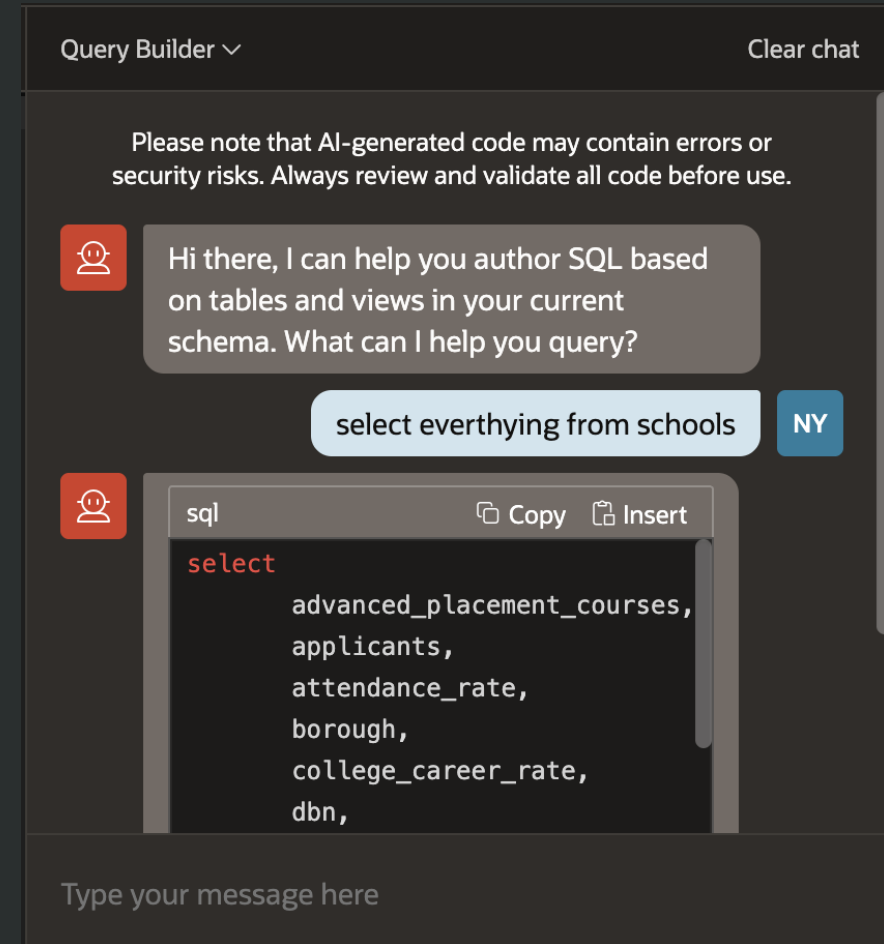
Use GenAI to create apps that meet business objectives quickly



# APEX AI Assistant

Use Natural Language to:

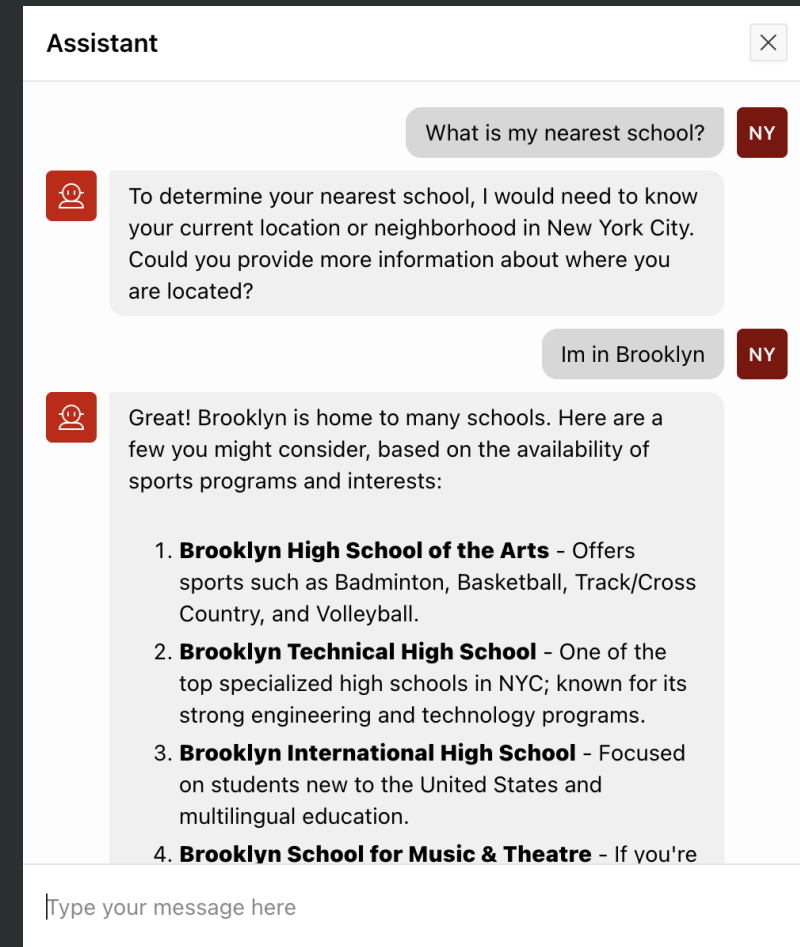
- Create a Database Model
- Create an Application
- Write Queries in SQL Workshop
- Code editor in the application



# APEX AI Features

Create the following end-user components:

- Show AI Assistant (chat window)
- Generate Text with AI
- AI Vector Search
- Retrieval Augmented Generation



# APEXlang

- Editable in VS Code
- CI/CD Pipelines
- AI Powered App Dev

" being executed."/>

The screenshot shows the VS Code editor with the file 'application.apx' open. The code is as follows:

```

1  application "Sample App" {
112    pages [
113      page 1 {
125      }
126    > navigation { ...
128    }
129    > security { ...
132    }
133    > pagePattern { ...
135    }
136    regions [
137
138      region test {
139        identification {
140          name: Cha
141          type: simabc charts
142        }
143        layout {
144          sequence: abc eba_demo_chart_tasks
145          slot: REGabc warnOnUnsavedChanges

```

The bottom terminal shows the command:

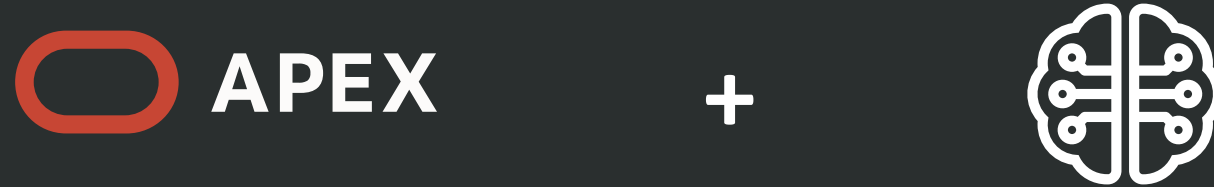
```

SQL> apex apexlang deploy -file "/"
Done

```



## New Value Proposition



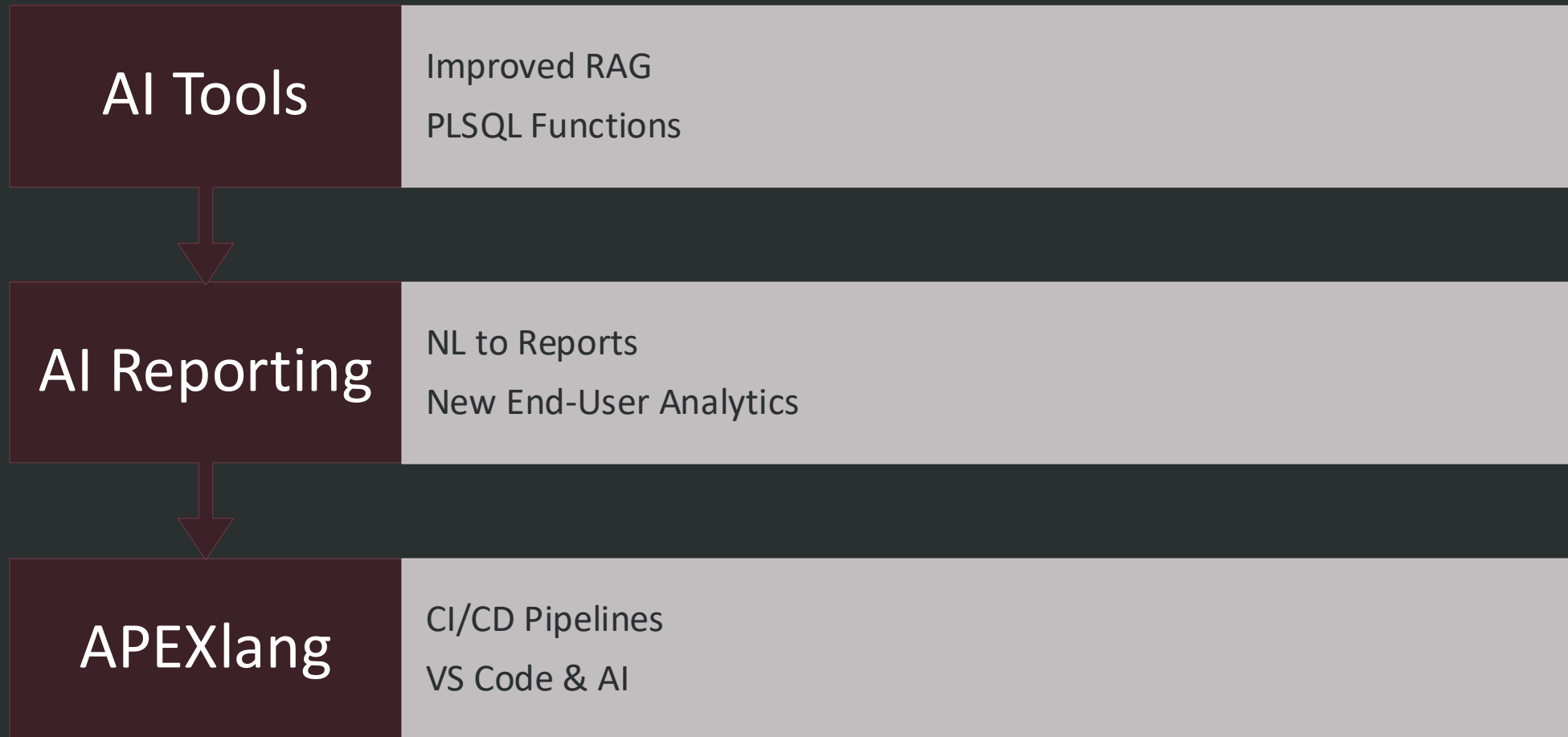
**Build intelligent enterprise apps you can trust.**

Oracle APEX is trusted worldwide to deliver mission-critical, data-driven apps that are secure, scalable, and easy to maintain.

# APEX AI Differentiators

- Bring Your Own AI - BYOAI
- Open Domain Specific Language (DSL)
- Meta-data not Code Generator
- In-database Architecture

# Roadmap



# Oracle APEX Training & Certification

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## Oracle APEX Professional Learning Path

- APEX Foundations  
[apex.oracle.com/go/foundations](https://apex.oracle.com/go/foundations)
- Oracle APEX Developer Professional  
[apex.oracle.com/go/professional](https://apex.oracle.com/go/professional)
- Oracle APEX : Empowering Low-Code Apps with AI  
[apex.oracle.com/go/ai-learn](https://apex.oracle.com/go/ai-learn)

#Oracle #LowCode #orclAPEX

## Get Oracle APEX Certified!

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- Showcase your skills in low-code application development
- Enhance your expertise in AI-powered low-code app development
- Open new career opportunities with Oracle APEX Cloud Developer Professional certification



[apex.oracle.com/go/professional-ai-lp](https://apex.oracle.com/go/professional-ai-lp)

# APEX Key Takeaways



Free with the Oracle Database and also available as a service on OCI



Runs in the Oracle Database which delivers scalability, low cost, and performance



Responsive UI for desktop and mobile devices



Ideal for building data-driven apps and extending SaaS applications



**APEX is Building Next-Gen AI-Powered Apps**

# To learn more and try APEX yourself



**Start for Free Today**

[apex.oracle.com/go/free/](https://apex.oracle.com/go/free/)



**Tutorials**

[apex.oracle.com/hols](https://apex.oracle.com/hols)



**Visit Our Information Portal**

[apex.oracle.com](https://apex.oracle.com)

**Try the “Build an Innovative Q&A Interface Powered by Generative AI” Live Lab to  
explore key capabilities of APEX Next-Gen AI-Powered Apps**

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# Retours d'expérience clients APEX

*Animé par SQORUS*



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People And Solutions That Matter



En collaboration avec



#Oracle APEX

#Oracle Cloud Infrastructure, OIC, OAC

#Oracle HCM Cloud, ERP Cloud, EPM Cloud

#Innovation

#Numérique Responsable

#Engagement



SQORUS

People And Solutions That Matter

# Cabinet en transformation des fonctions

RH, Finance, EPM & IT

**Expert Oracle depuis plus de 25 ans**

Joffrey Chu – Directeur Division IT

[jchu@sqorus.com](mailto:jchu@sqorus.com)

Oracle APEX Day Parus – 24/09/2025



**Comment Oracle APEX modernise et améliore le pilotage des équipes dans le domaine des transports?**

**Retours clients de la SNCF et de Onet Airport Services**

Oracle APEX Day

## Nos intervenants



**Claude SIROIS**

Responsable département Etudes,  
Projets et Conseil ERP Groupe SNCF



**Adrien LAPLANCHE**

Ingénieur Méthode



**Aurélien DINH**

Sénior Manager Digital

# ERP PEOPLESOFT DU GROUPE SNCF

Quelques chiffres



Une instance commune, Peoplesoft FSCM 9.2, pour les 5 SA du Groupe Public SNCF



- + 13 périmètres fonctionnels au sein d'un même outil : comptabilité, achats, logistique, ...
- + 25 000 utilisateurs internes et des milliers de fournisseurs
- + Plus de 100 000 traitements lancés quotidiennement



- + Hébergée dans le Cloud Oracle (OCI)
- + Bases de données Oracle sur Quarter Rack EXADATA X9-M



✓ +20 ans d'historique et 15 To pour la base de données de Production

# CONTEXTE

## Cycle de vie des mises à jour de l'ERP

### Diverses opérations de maintenance



+ Technique (mensuel)



+ Applicative (mensuel)



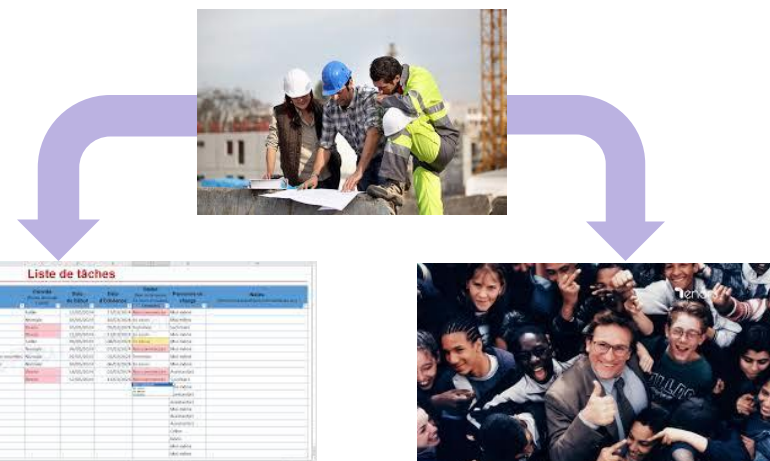
+ Evolutive (semestriel)



+ Modèle de Gestion (annuel)

### De nombreuses tâches et intervenants à coordonner

- + Jusqu'à plusieurs centaines d'actions
- + Jusqu'à plusieurs dizaines d'intervenants



- + Un bon vieux fichier Excel
- + Difficile à maintenir
- + De nombreuses macros complexes
- + A la main exclusive des équipes de
- + Des centaines de mails pour suivre
- + Communication générale et docum

|             |                                           |           |                             |                 |       |       |             |             |          |            |   |             |             |         |         |                |    |    |    |      |      |
|-------------|-------------------------------------------|-----------|-----------------------------|-----------------|-------|-------|-------------|-------------|----------|------------|---|-------------|-------------|---------|---------|----------------|----|----|----|------|------|
| ETA-302     | B                                         | C         | D                           | Q               | R     | S     | T           | U           | V        | W          | X | Y           | Z           | AA      | AB      | AC             | AD | AE | AF | AG   | AH   |
| VDE         |                                           |           | vendredi 10/01/2025 - 08:00 |                 | 00:00 |       | 31/12 00:00 | 00/01 00:00 |          |            |   |             |             |         |         | 22/09/25 17:27 |    |    |    | 0.00 | 0.00 |
| 2025-01-10  |                                           |           | vendredi 10/01/2025 - 08:00 |                 |       |       |             |             |          |            |   |             |             |         |         |                |    |    |    |      |      |
| N           | Contrainte                                | Durée     | Début                       | Fin             | Durée | Début | Fin         | Résultat    | Contrôle | Statut     | X | Début       | Fin         | Durée   | Ecart   |                |    |    |    |      |      |
| PLAN1       | Conversion                                | 00:00     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             |             |          | A faire    |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PLAN1-1     | Pré-requis J-X                            | 16:26     | ven 10/01 08:00             | sam 11/01 00:31 | 16:31 |       |             |             |          | En cours   |   | 10/01 08:00 | 22/09 23 01 | 6135.01 | 6118.30 |                |    |    |    |      |      |
| ETA-101     | Préparation de la conversion              | 16:26     | ven 10/01 08:00             | sam 11/01 00:31 | 16:31 |       |             |             |          | En cours   |   | 10/01 08:00 | 22/09 23 01 | 6135.01 | 6118.30 |                |    |    |    |      |      |
| GRP-100     | Organisation BOP week end de conversion   | 00:00     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             |             |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-04  | Vérification des accès aux locaux         | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-05  | Vérification d'absence maintenance bureau | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-06  | Vérification d'une sauvegarde quotidien   | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-07  | Vérification des serveurs de messagerie   | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-08  | Préavis des opérations aux utilisateurs   | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-09  | Planning des acteurs                      | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-10  | Planification d'une sauvegarde bdd level  | 00:05     | ven 10/01 08:00             | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| GRP-101     | Prérequis Projets                         | 16:26     | ven 10/01 08:00             | sam 11/01 00:31 | 16:31 |       |             |             |          | En cours   |   | 17/03 11:34 | 22/09 23 01 | 4547.27 | 6118.30 |                |    |    |    |      |      |
| PROJ-PR-00  | Désactiver le mode maintenance durant la  | ADMIN ERP | 03:50                       | ven 10/01 08:00 | 0:00  |       |             | Simulé      |          | Finis      |   | 10/01 08:00 | 10/01 08:00 | 0:00    |         |                |    |    |    |      |      |
| PROJ-PR-01  | Validation du plan                        | PROJETS   | 01:50                       | ven 10/01 11:50 | 3:50  |       |             | Fin         |          | Finis      |   | 17/03 11:34 | 17/03 11:34 | 0:00    | 1584.44 |                |    |    |    |      |      |
| PROJ-PR-02  | Vérification des composants dans le rep   | PROJETS   | 01:36                       | ven 10/01 09:36 | 1:36  |       |             | Echec       |          | Refusé     | X | 22/09 17:27 | 22/09 19:03 | 1:36    | 6129.27 |                |    |    |    |      |      |
| PROJ-PR-03a | Serveur de bascule et vérification pas d  | ADMIN ERP | 01:05                       | ven 10/01 09:41 | 0:05  |       |             |             |          | En attente |   | 22/09 19:03 | 22/09 19:08 | 0:05    | 6129.27 |                |    |    |    |      |      |
| PROJ-PR-03b | Archive du répertoire                     | ADMIN ERP | 01:07                       | ven 10/01 09:57 | 0:10  |       |             |             |          | En attente |   | 22/09 19:08 | 22/09 19:24 | 0:16    | 6129.27 |                |    |    |    |      |      |
| PROJ-PR-03c | Création des graphes pour validation des  | ADMIN ERP | 01:07                       | ven 10/01 09:57 | 0:10  |       |             |             |          | En attente |   | 22/09 19:24 | 22/09 20:31 | 3:07    | 6129.27 |                |    |    |    |      |      |
| SOC-VMO-050 | VMO initiale bis - Lancement VMO this     | ADMIN ERP | 11/01/25 00:01              | sam 11/01 00:31 | 0:30  |       |             |             |          | En attente |   | 22/09 23:21 | 22/09 23:01 | 0:18    | 6118.30 |                |    |    |    |      |      |



# PILOTAGE DES OPÉRATIONS

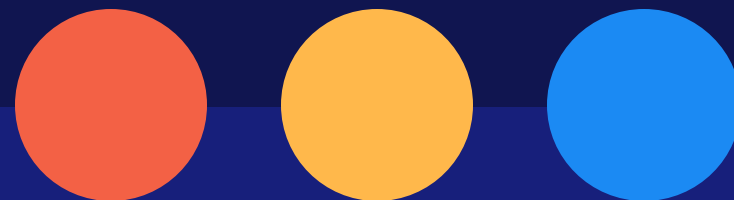
Outil de pilotage

Nouvelle solution

- + Application APEX
- + Solution interactive accessible par les pilotes et les intervenants
- + Des mails ciblés pour notifier les intervenants concernés par une tâche
- + Communication générale et documentation des incidents intégrées dans l'outil



Merci de votre attention



ORACLE

# APEX Day in Paris

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ā'pěks  
(#orclapex)



( )

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En partenariat avec



En collaboration avec



ORACLE

APEX Day in Paris

# Retours d'expérience clients APEX

*Animé par TALAN*



En partenariat avec



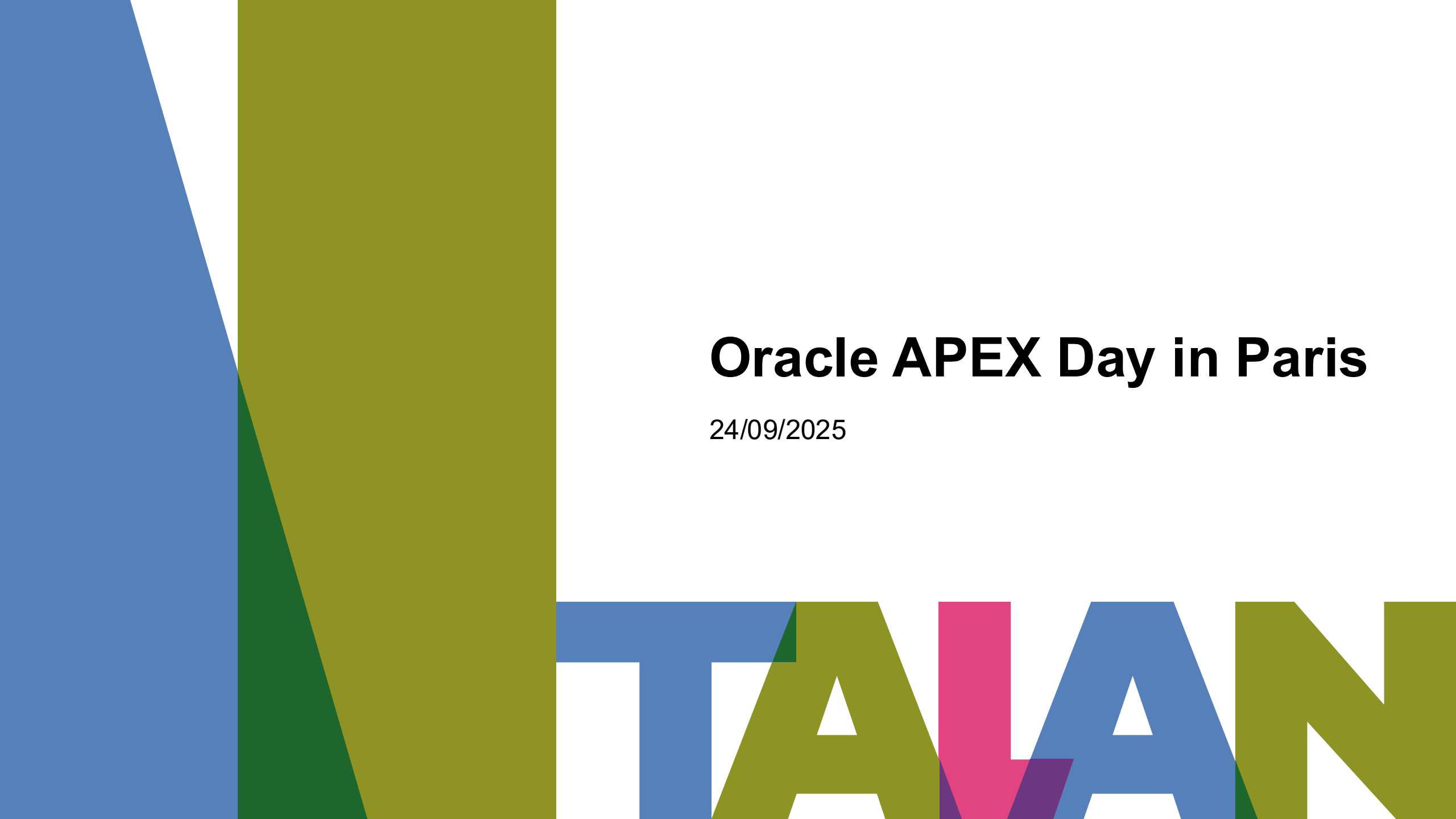
SQORUS  
People And Solutions That Matter

TALAN  
Positive innovation

En collaboration avec

AUF  
Club Utilisateurs  
de solutions Oracle





# Oracle APEX Day in Paris

24/09/2025

TAWAN

# Qui sont nos intervenants ?



Édith  
Poirier

-  
COO



Damien  
Leveugle

-  
Business Unit  
Manager



Mohamed  
Elmachtani Idrissi

-  
Responsable du  
pôle Études



Arnaud  
Buil

-  
Responsable  
développement  
et support



Pierre-Louis  
Giros

-  
CPO



# TALAN

CENTRE D'EXCELLENCE  
ORACLE TECHNOLOGIES

ORACLE CLOUD, ORACLE APEX



ON-PREMISE

Optimisation et adoption des  
solutions Oracle



EXPÉRIENCE  
**+20 années**

Leadership dans Oracle APEX et OCI



ENGAGEMENT COMMUNAUTÉ  
**10 Oracle ACEs**

Oracle ACEs/Oracle ACE Director



CERTIFICATIONS  
**+36 collaborateurs certifiés**

Excellence technique et formation continue



**ORACLE APEX**

Développement &  
Modernisation Oracle Forms



**IA &  
MACHINE LEARNING**

Oracle AI Services, GenAI, AutoML,  
Vector Search & GPU



**E-BUSINESS SUITE**

Extension avec Oracle APEX



**ORACLE CLOUD**

**Migration** : BD Oracle, VM, Apps, OCVS  
**Multicloud** : Oracle@Azure/AWS/GCP  
**Autre** : Analytics Cloud, etc



**OPTIMISATION &  
AUDIT**

Automatisation, audit sécurité,  
mises à jour & PRA



**SERVICE MANAGÉ 24/7**

Oracle Cloud Infrastructure

**Merci**

**TALAN**

ORACLE

# APEX Day in Paris

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## APEX Day in Paris

### Conclusion de la matinée



**Mónica Godoy**

Senior Principal Product Manager for Oracle APEX, Oracle Corporation



**Patrick Le Martret**

Technology Marketing Director, Oracle

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## APEX Day in Paris



Primary site



[apex.oracle.com](https://apex.oracle.com)

Get Started



[apex.oracle.com/go/free](https://apex.oracle.com/go/free)

APEX Shortcuts



[apex.oracle.com/shortcuts](https://apex.oracle.com/shortcuts)

APEX on  
Autonomous



[apex.oracle.com/autonomous](https://apex.oracle.com/autonomous)

Oracle  
APEX + AI



[apex.oracle.com/go/ai](https://apex.oracle.com/go/ai)

APEX Training



[apex.oracle.com/go/training](https://apex.oracle.com/go/training)

Oracle University APEX Certification



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(#orclapex)



## Key Takeaways



- Free with the Oracle Database and also available as a service on OCI
- Runs in the Oracle Database which delivers scalability, low cost, and performance
- Responsive UI for desktop and mobile devices
- APEX provides compelling solutions for a variety of use cases
- **APEX is Building Next-Gen AI-Powered Apps**

# Agenda | APEX Day in Paris

## Après-midi



|                |                                                                                                                                                                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12h30<br>13h30 | Cocktail déjeunatoire                                                                                                                                                           |
| 13h30<br>14h20 | <b>Premiers pas avec GenDev dans APEX</b><br><i>Mónica Godoy, Senior Principal Product Manager for Oracle APEX, Oracle Corporation</i>                                          |
| 14h20<br>15h10 | <b>Nouveautés et prochaines étapes d'Oracle APEX</b><br><i>Marc Sewtz, Senior Director, Software Development, Oracle Corporation</i>                                            |
| 15h10<br>15h25 | Pause                                                                                                                                                                           |
| 15h25<br>16h15 | <b>APEX dans Git, code en texte brut – CI/CD avec APEXLang et intelligence intégrée via MCP</b><br><i>Sonja Meyer, Consulting Member of Technical Staff, Oracle Corporation</i> |
| 16h15<br>16h30 | <b>Session de clôture Oracle APEX</b><br><i>Mónica Godoy, Senior Principal Product Manager for Oracle APEX, Oracle Corporation</i>                                              |



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# APEX Day in Paris

Reprise à 13h30

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Positive innovation



JU  
20  
25

CONCILIER

IA ETHIQUE & RESPONSABLE,  
INNOVATION & CRÉATION DE VALEUR

Mardi 4 Novembre  
*VERSO by Victoire*

Retrouvez l'AUFO pendant le cocktail  
déjeunatoire



Club Utilisateurs  
de solutions **Oracle**

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# APEX Day in Paris

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APEX Day in Paris

# Getting Started with GenDev in APEX



**Mónica Godoy**

Senior Principal Product Manager for Oracle APEX, Oracle Corporation



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# Getting Started with GenDev in APEX

**Monica Godoy**  
Senior Principal Product Manager  
[Monica.godoy@oracle.com](mailto:Monica.godoy@oracle.com)





## First Question

**Where is Oracle APEX available?**

- a) Oracle Cloud,
- b) On-Premises,
- c) Everywhere you have an Oracle Database

## Second Question

**For which use case is APEX a good fit?**

- a) Modernization from Oracle Forms
- b) Build SaaS applications
- c) Customize Oracle ERP (E-Business Suite and Fusion Cloud)
- d) All of the above

# Agenda

- Basic Concepts: Prompt, GenAI, LLM, GenDev
- Prerequisites
- AI Capabilities in Oracle APEX
- Resources
- Summary

# What is a Prompt?

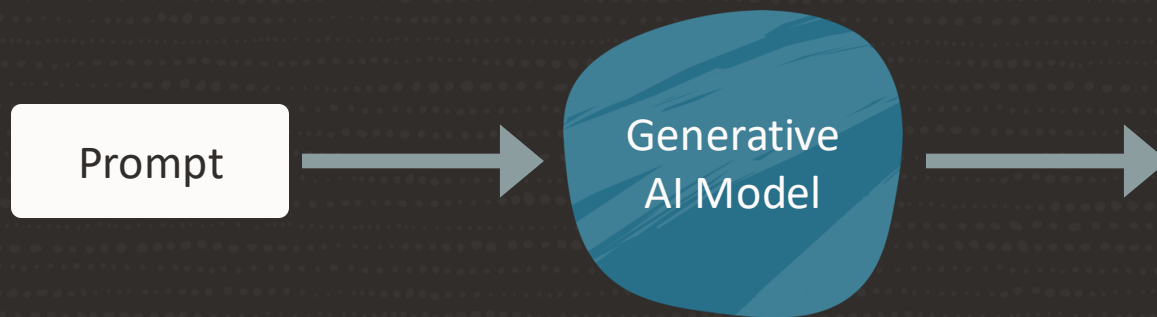
- Instructions or questions you give to a generative AI model.
- Good prompts are clear, specific, and context-rich, enabling the AI to generate more relevant and useful results.

*“Write a short story about a magical cat on one street of Paris.”*

*“Translate the following text to French: The sun is shining today”*

# What is Generative AI?

- Requires minimal human input to create new content.
- **How it works?**
  - Training
  - Learning
  - Generation



Content creation

Entity Extraction

Copyediting (grammar, style)

Chat Interface (Q&A)

Semantic Search

Summarization

Toxicity detection

Sentiment analysis

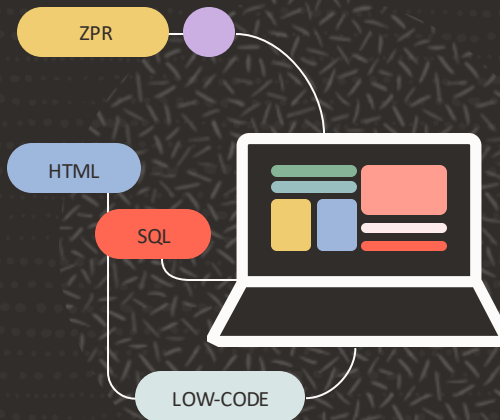
# GenDev

## Infrastructure that facilitates AI development



Independent,  
Evolvable, Trusted

**Oracle  
Database 23ai**



Declarative,  
Understandable, Editable

**Oracle APEX  
Oracle SQL Developer**



Automated,  
Mission Critical Platform

**Oracle  
Autonomous Database**

# GenDev in Oracle APEX

## What do You Need?

Oracle APEX 24.1 – June 2024

**Brings Gen AI to Developers!**

- Requires an Oracle Database release 19c or later.
- Available on Oracle Cloud, On-Premises, or any other Cloud
- Access to a Generative AI Service. Choose between:
  - OCI Generative AI Service
  - Open AI
  - Cohere

Oracle APEX 24.2 – January 2025

**Unlocks GenDev with new AI capabilities!**

[apex.oracle.com/download](https://apex.oracle.com/download)

# GenDev in Oracle APEX

- Oracle APEX Service
- Oracle Autonomous Database
- apex.oracle.com (Evaluation purposes)
- Oracle Database Cloud Service (Oracle Cloud)
- Oracle Exadata Cloud Service (Oracle Cloud)
- On-Premises



**Ready to go!**



**Configure:**

- ACL
- Web Proxy
- Wallet

**Learn more:**

**[apex.oracle.com/go/configure-acl](https://apex.oracle.com/go/configure-acl)**



## Third Question

**Which versions of Oracle APEX support GenDev?**

- a) Oracle APEX 24.1
- b) Oracle APEX 24.2
- c) Both, Oracle APEX 24.1 and Oracle APEX 24.2

# The Basic AI Capabilities

# 1. Configure your Gen AI Service

Abstracts to popular commercial  
**Generative AI products**

Authenticates using **Web Credentials** in  
Oracle APEX

Used by **App Builder, AI Assistant &  
APEX\_AI PL/SQL API**

Can be enabled/disabled on APEX  
**Instance** and **Workspace** levels

Workspace Utilities \ Generative AI Services \ Create/Edit

### Generative AI Service

Cancel Create

Show All Identification Settings Advanced

#### Identification

\* AI Provider OCI Generative AI Service ?

\* Name - Select - ?

Static ID Open AI ?

OCI Generative AI

\* Compartment ID ?

\* Region us-chicago-1 ?  
US Midwest (Chicago), US East (Ashburn), US West (Phoenix), Germany Central (Frankfurt), UK South (London)

\* Model ID cohere.command-r-08-2024 ?

#### Settings

Used by App Builder ☒ ?

\* Base URL https://inference.generativeai.us-chicago-1.oci.oraclecloud.com ?

#### Credentials

\* Credential - Create New - ?

Test Connection

## 2. Test your Gen AI Service

Test Connection

 **APEX**   **App Builder** ▾   SQL Workshop ▾   Team Development ▾   Gallery

↑ Workspace Utilities \ Generative AI Services \ **Create/Edit**

✓ **Connection Succeeded!**

 **APEX**   **App Builder** ▾   SQL Workshop ▾   Team Development ▾   Gallery

↑ Workspace Utilities \ Generative AI Services \ **Create/Edit**

### 1 error has occurred



- **Connection Failed!**

**Please review the following error message that was returned:**

401: The required information to complete authentication was not provided or was incorrect.

### 3. Create a Data Model from a Prompt

Create your **new data model** from a Prompt

Generate scripts either in **Oracle SQL** or **Quick SQL** format

Build a **Data Model** and generate **Sample Data**

### APEX Assistant

Create a data model with the prefix PM to manage projects, milestones, tasks, task to-dos, task links, and comments, including multiple rows of data for each table. RT

Certainly! Here's an optimized data model for managing projects, milestones, tasks, task to-dos, task links, and comments, along with constraints, sequences, and trigger definitions. The multiple rows of data inserts will be added to provide sample data for each table.

```
sql
-- create projects table
create table pm_projects (
  id                number          generated by default on null as identity
                    constraint pm_projects_pk primary key,
  name              varchar2(255)  not null,
  description       varchar2(4000),
  created_on        date           not null,
  created_by        varchar2(255)  not null,
  updated_on        date           not null,
  updated_by        varchar2(255)  not null,
  row_version       integer        not null )
/
```

I have created the tables with appropriate relationships, constraints, and triggers for the data model. Each table also has multiple rows of sample data inserted.

1. Do you need any additional attributes for any specific entity?
2. Any specific integrity constraints or business rules you want to implement in this data model?

Create SQL Script

Type your message here

SQL Format **Oracle SQL** Quick SQL

## 4. Create Apps

Generate **Application Blueprint**  
based on a Prompt

Leverages **APEX Dictionary  
Cache** to identify relevant  
tables

Further, **enhance the generated  
blueprint** with additional  
instructions



### Create App Using Generative AI

Enter a natural language prompt to create your application.

### APEX Assistant

This assistant lets you use natural language to generate application pages based on database tables. Use it to jump-start the creation of an application with a key subset of the functionality available in Oracle APEX.

Let's create an app together. Describe the app you want to create, including the data or tables it will use.

create an app for parents who are looking for the perfect high schools to enroll their kids in new york city using the nyc\_schools table

Sure, I can create an application called **NYC High Schools** with the following pages:

- High School Explorer ( Interactive Report on `NYC_SCHOOLS` )
- School Performance Insights ( Chart on `NYC_SCHOOLS` )
- School Dashboard ( Dashboard )
- School Search ( Faceted Search on `NYC_SCHOOLS` )
- School Details ( Form on `NYC_SCHOOLS` )

With the following features enabled: **Install Progressive Web App, Push Notifications**. Would you like to create the application now? Or, if you have any changes, just let me know below!

Create Application

Type your message here

# Create Apps - Troubleshooting

## APEX Assistant



This assistant lets you use natural language to generate application pages based on database tables. Use it to jump-start the creation of an application with a key subset of the functionality available in Oracle APEX.



Let's create an app together. Describe the app you want to create, including the data or tables it will use.

create an app for parents who are looking for the perfect high schools to enroll their kids in new york city

MO



I'm sorry, I couldn't process that. Could you please rephrase your question?

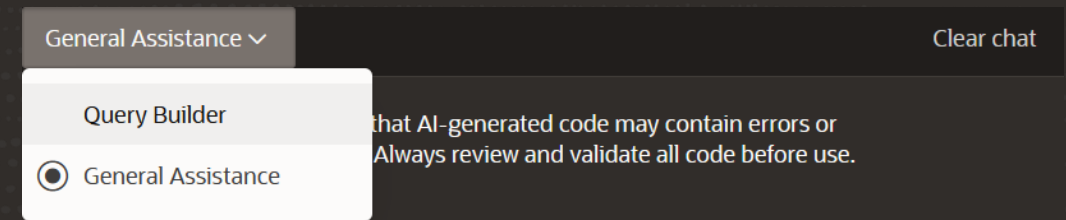
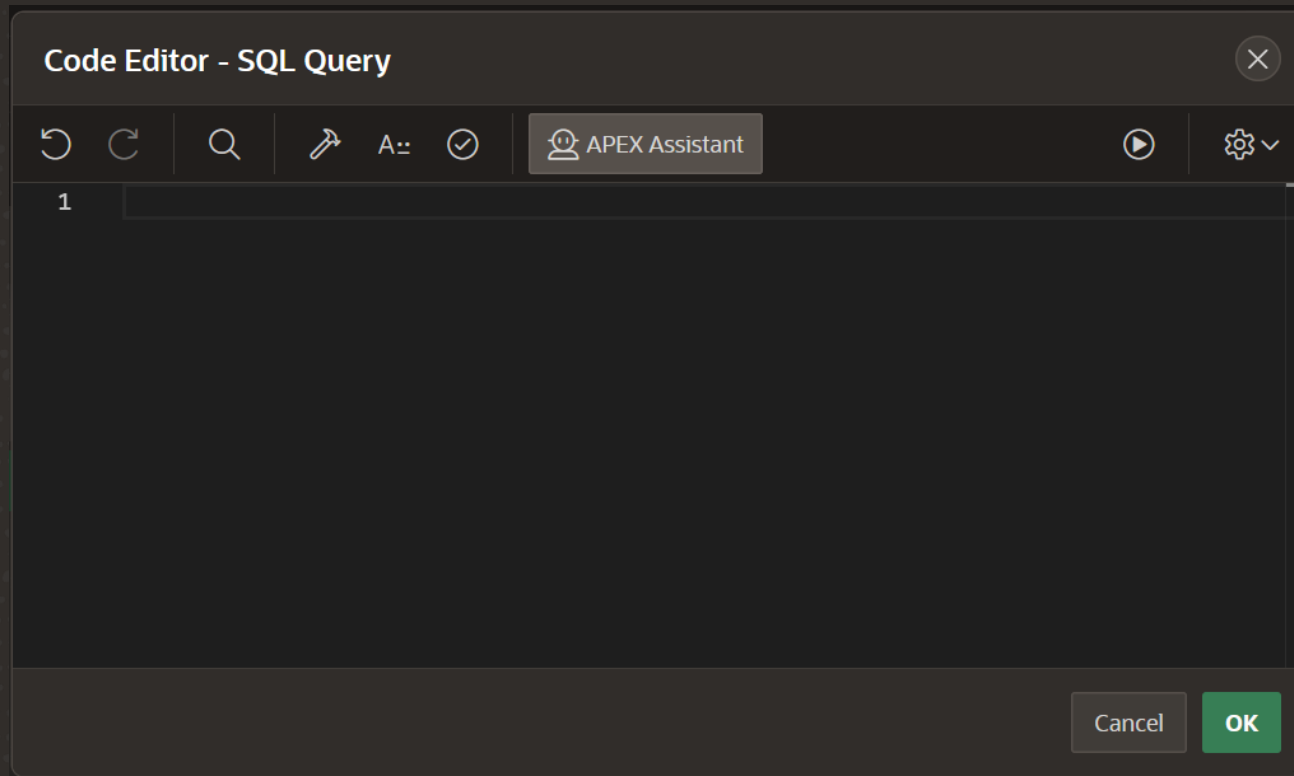
Refresh the **APEX Dictionary Cache**.

**SQL Workshop > Utilities > Data Dictionary Cache**

# More AI Capabilities?

# APEX Assistant for Code Editor

APEX  
24.1



# Code Editor

APEX  
24.1

**Generate SQL Queries** for any region using the Query Builder mode.

Query Builder ▾

Clear chat

Please note that AI-generated code may contain errors or security risks. Always review and validate all code before use.

Help me create a query for the NYC\_SCHOOLS table filtering the schools located in Brooklyn

MO



```
sql Copy Insert
select *
  from nyc_schools
 where borough = 'Brooklyn'
```

Type your message here

## Code Editor

Generate PL/SQL, JavaScript, HTML, and CSS Code using the General Assistance mode.

General Assistance ▾

Clear chat

Please note that AI-generated code may contain errors or security risks. Always review and validate all code before use.

please help create a PL/SQL function that returns a CLOB that contains information about the NYC\_SCHOOLS

MO



sql

Copy Insert

```
create or replace function get_nyc_schools_info
  v_clob clob;
begin
  select dbms_lob.substr(dbms_lob.to_clob(xmlt
xmlseq(1, (select xmlagg(xmlforest(
  school_id as "SchoolID",
  school_name as "SchoolName",
  borough as "Borough",
```

Type your message here

# Code Editor

**Improve & Explain** Quick Actions  
help improve and understand the  
selected code

General Assistance ▾ Clear chat

```
sql
select 'Overview of the school : ' ||
OVERVIEW_PARAGRAPH || chr(10) || chr(13) ||
'Language Courses : ' ||
LANGUAGE_CLASSES || chr(10) || chr(13) ||
```

Improve Explain

Type your message here

General Assistance ▾ Clear chat

```
sql
ALTER TABLE HIGHSCHOOLS ADD embeddings vector;
```

I'm having trouble understanding this code block. Can you please explain it to me? MG

 This SQL code is modifying an existing table named **HIGHSCHOOLS** in a database.

```
sql
ALTER TABLE HIGHSCHOOLS
ADD embeddings vector;
```

Copy Insert

Here's what each line does:

- **ALTER TABLE HIGHSCHOOLS** : This command tells the SQL database to modify the structure of the existing table named **HIGHSCHOOLS**.
- **ADD embeddings vector;** : This adds a new column to the table named **embeddings** of data type **VECTOR**.
  - **embeddings** is the name of the new column.
  - **VECTOR** is a data type that represents a dense vector of floats, commonly used in machine learning and spatial data processing.

# Code Editor – Assistance to fix your code

Code Editor - SQL Query

↶

↷

🔍

🔧

A::

✓

👤 APEX Assistant

▶

⚙️

General Assistance

Clear chat

ORA-20999: Failed to parse SQL query! ORA-06550: line 28, column 6: ORA-00923: FROM keyword not found where expected

👤 Help me fix this

22

ACADEMIC\_OPPORTUNITIES,

23

ADVANCEDPLACEMENT\_COURSES,

24

DIADetails,

25

EXTRACURRICULAR\_ACTIVITIES,

26

PSAL\_SPORTS\_BOYS,

27

PSAL\_SPORTS\_GIRLS,

28

FACILITIES

29

HIGHSCHOOLS

👤

Let me find out if I can help you with this problem...

Based on the provided SQL query, the error ORA-00923: FROM keyword not found where expected is caused by a missing keyword **from** being replaced with a table name directly.

sql

📄 Copy

📄 Insert

Type your message here

Cancel

OK



88

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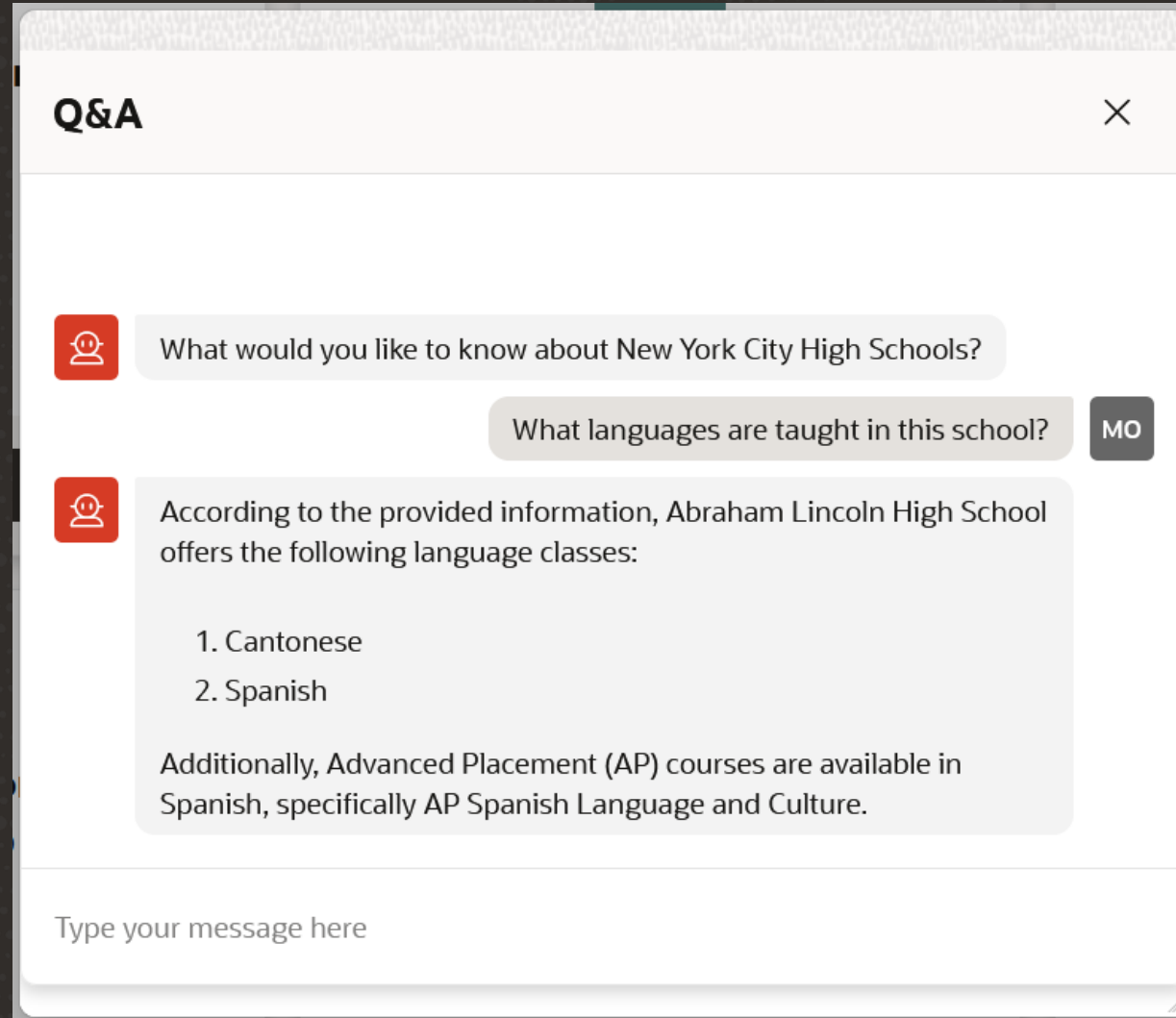
# AI Chat User Interface

A **Native Dynamic Action**

Leverages **Generative AI Services**  
configured under Workspace Utilities

Rendered **Inline** or as a **Dialog**

Configurable **System Prompt** and  
**Welcome Message**





Go ahead and ask your questions about the first APEX Day in Paris.

When the APEX Day in Paris conference will take place?

MO



The Oracle APEX Day in Paris conference is scheduled to take place on **November 14, 2023**, at the Oracle France office in Colombes, near Paris. For the latest updates or future editions, please check the official Oracle APEX community website.

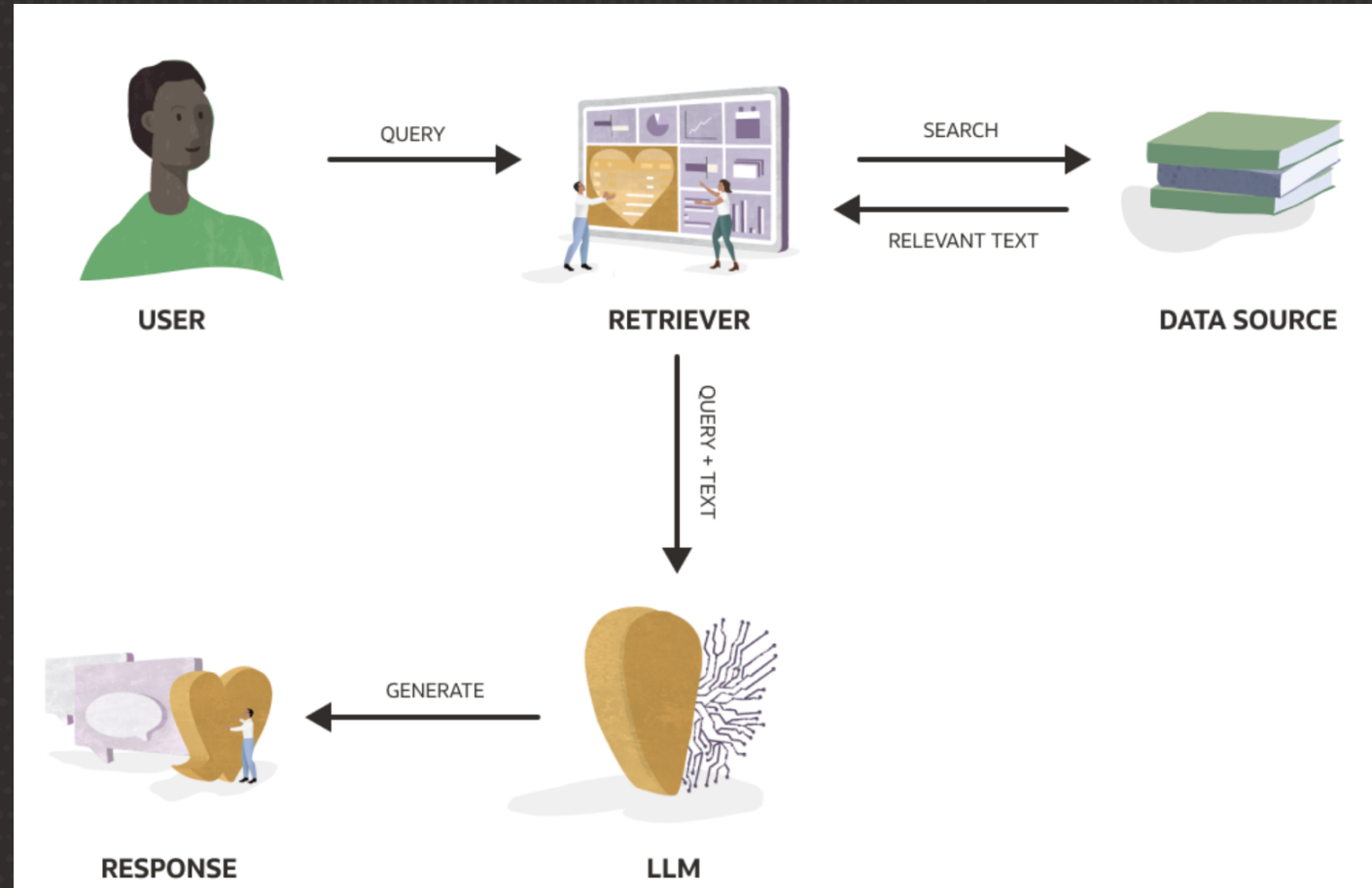
# What Is Retrieval-Augmented Generation (RAG)?

RAG provides a way to optimize the output of an LLM with targeted information without modifying the underlying model itself.

**Cost-effective**

**Access to up-to-date information**

**Domain-Specific Knowledge**



# AI Configurations

AI Configurations centralize key  
Generative AI settings.

Customizable System Prompt,  
Welcome Message, and RAG  
Sources.

Use it in both the Show AI Assistant  
and Generate Text with AI Dynamic  
Actions

APEX\_AI PL/SQL API

Generative AI Configuration

Cancel

Delete

Apply Changes

Show All

Identification

Subscription

Generative AI

RAG Sources

Advanced

Comments

Generative AI

ServiceOCI Gen AI

System Prompt

APEX Assistant

1

Use the Information provided about the school to answer all questions:

2

3

If the question cannot be answered based on the information provided, say "Sorry, I can't provide an answer to that question based o

Welcome Message

APEX Assistant

1

Welcome! What would you like to know about this high school?

RAG Sources

Create RAG Source

| Name        | Description                  | Type      | Conditional | Updated    | Updated By |
|-------------|------------------------------|-----------|-------------|------------|------------|
| School Info | Information about the school | SQL Query |             | 6 days ago | MONICA     |
| course      |                              | SQL Query | Yes         | 6 days ago | MONICA     |
| facilities  |                              | SQL Query | Yes         | 6 days ago | MONICA     |
| language    |                              | SQL Query | Yes         | 6 days ago | MONICA     |

RAG Source

Show All   Identification   Description   Source   Advanced   Server-Side Condition   Security   Configuration   Comments

Source

\* Type

SQL Query

SQL Query

Function Body

Static

?

\* SQL Query ?

↶ ↷ 🔍 🛠 A: ⏹

1 select 'Overview of the school : ' || OVERVIEW\_PARAGRAPH || chr(10) || chr(13) ||

2 'Language Courses : ' || LANGUAGE\_CLASSES || chr(10) || chr(13) ||

3 'Advanced Placement Courses : ' || ADVANCED\_PLACEMENT\_COURSES || chr(10) || chr(13) ||

4 'Diversity in Admission Policy : ' || ADDTL\_INFO1 || chr(10) || chr(13) ||

5 'Extra curricular activities : ' || EXTRACURRICULAR\_ACTIVITIES || chr(10) || chr(13) ||

6 'Public Schools Athletic League (PSAL) sports for boys : ' || PSAL\_SPORTS\_BOYS || chr(10) || chr(13) ||

7 'Public Schools Athletic League (PSAL) sports for girls : ' || PSAL\_SPORTS\_GIRLS || chr(10) || chr(13) ||

8 'Facilities : ' || SCHOOL\_SPORTS || chr(10) || chr(13) ||

9 'Academic opportunities : ' || ACADEMIC\_OPPORTUNITIES || chr(10) || chr(13) ||

10 'Attendance rate : ' || ATTENDANCE\_RATE || chr(10) || chr(13) ||

11 'Graduation rate : ' || GRADUATION\_RATE

12 as prompt\_context

13 from nyc\_schools

14 where id = :p6\_id

93

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Generative AI Configurations

Utilization

History

Actions ▾

| Name              | Service    | RAG Sources | Subscribed From | Subscription Status | Subscribers | Updated       | Updated By | Copy                                                                                |
|-------------------|------------|-------------|-----------------|---------------------|-------------|---------------|------------|-------------------------------------------------------------------------------------|
| APEX Day in Paris | OCI Gen AI | 1           |                 |                     |             | 4 minutes ago | MONICA     |  |

1 - 1

**About**

Generative AI Configurations contain information such as System Prompt, Welcome Message, and Retrieval-Augmented Generation (RAG) Sources to enable richer interactions with Generative AI services.

These configurations can define one or more RAG Sources that can be used by the AI service to retrieve relevant information and improve response quality.

[Learn More ...](#)





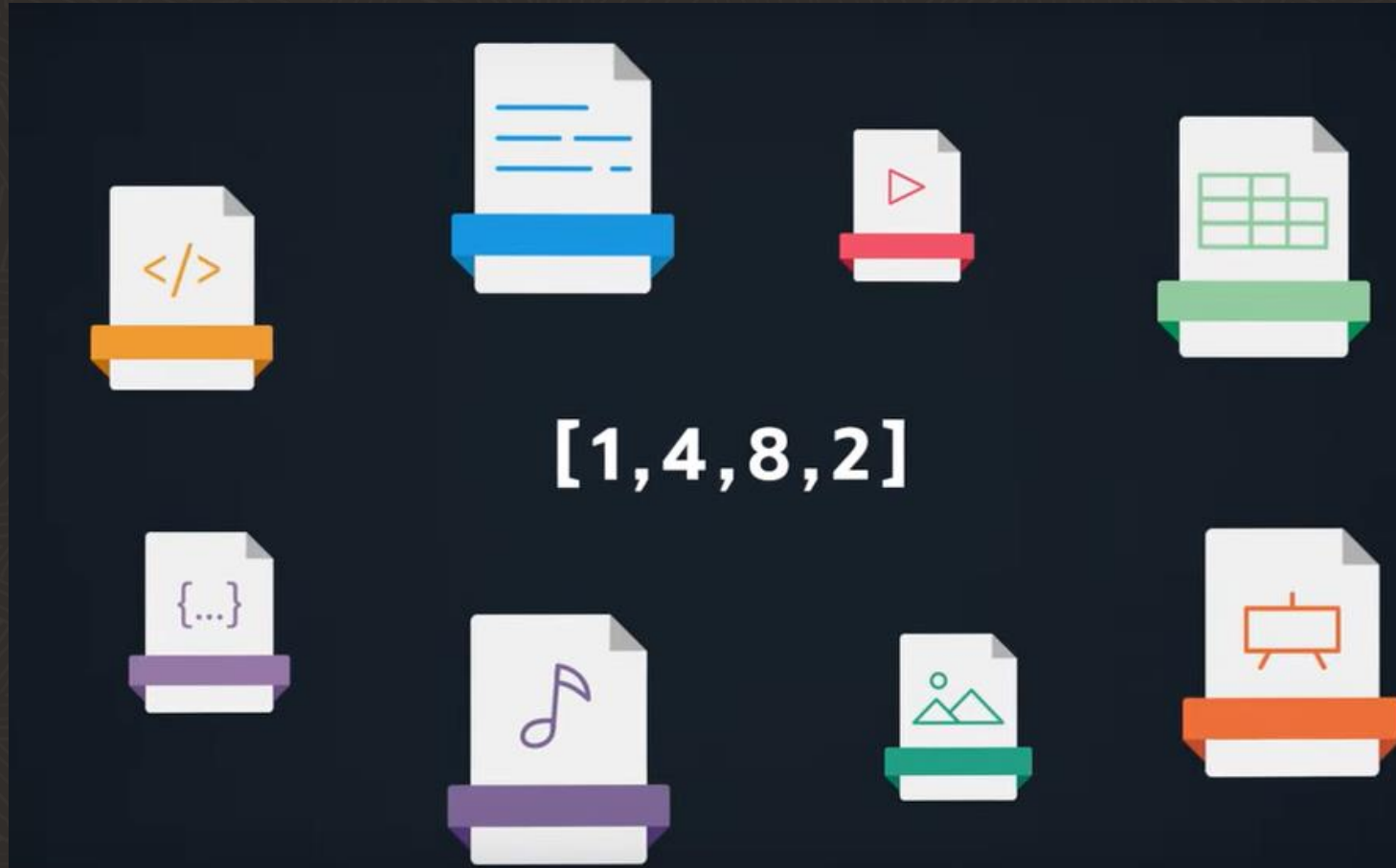
## Fourth Question

**What's the purpose of using RAG Sources in APEX?**

- a) Optimize the output of an LLM by modifying the model on the fly
- b) Optimize the output of an LLM without modifying the model itself and with targeted information
- c) Increase the complexity of the AI Chatbots creation

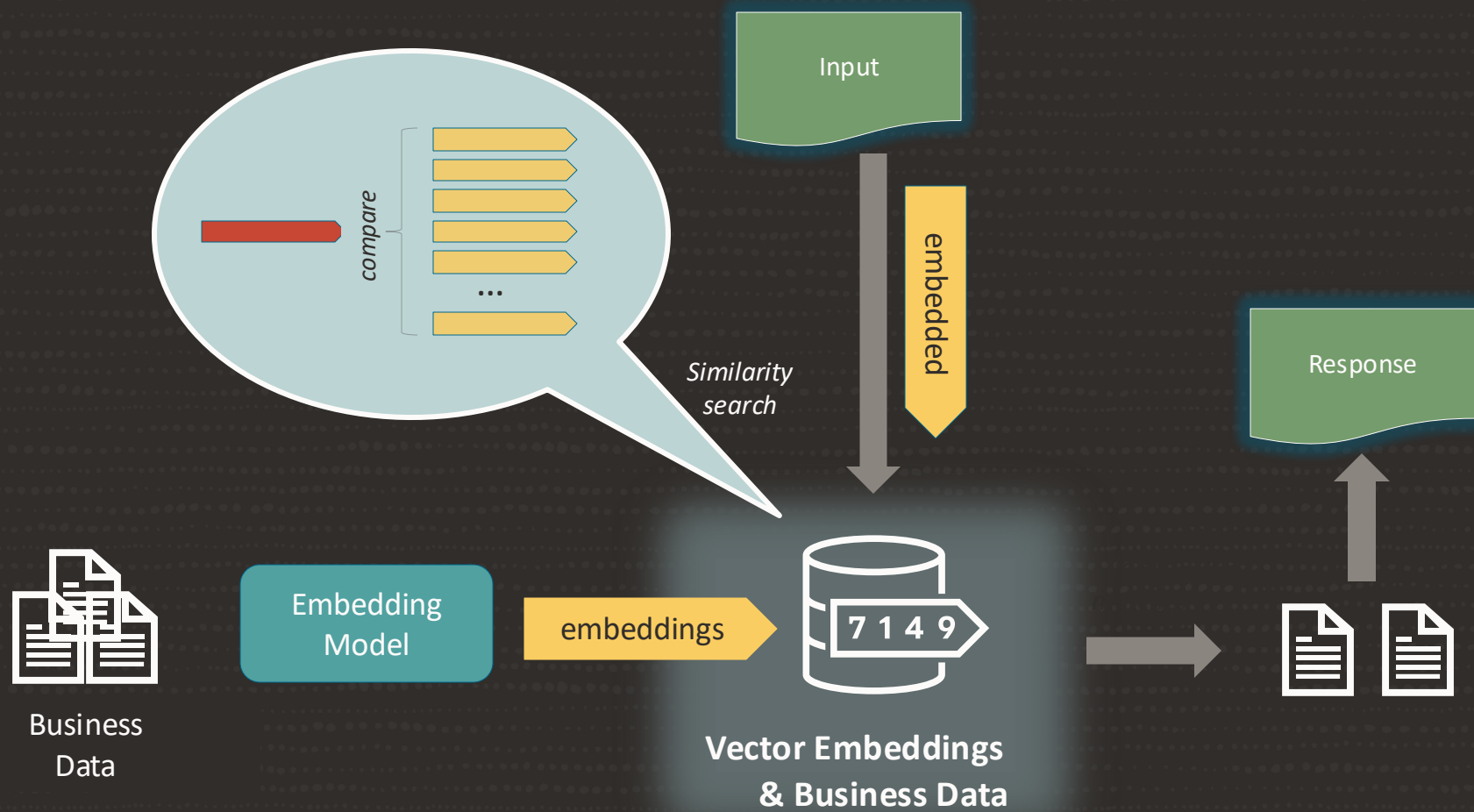
# Advanced

# What is a Vector?



# AI Vector Search

Search across your unstructured data

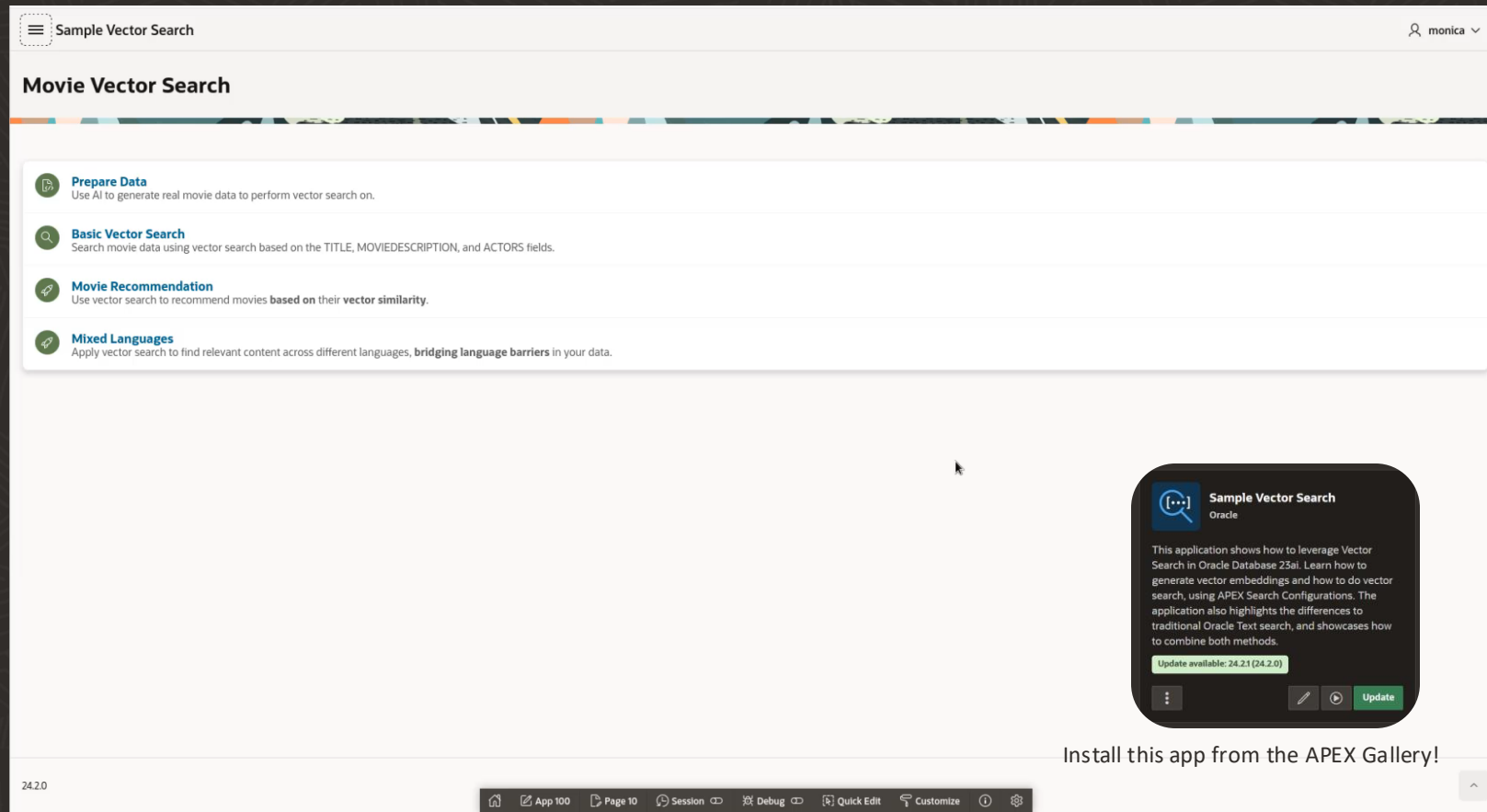


# What are Vector Providers?

The screenshot shows the 'Vector Provider DB ONNX Model' configuration page in Oracle APEX. The page has a breadcrumb trail: 'Workspace Utilities \ Vector Providers \ Vector Provider Details'. At the top right are icons for help, search, and share. Below the title are 'Cancel', 'Delete', and 'Apply Changes' buttons. The page is divided into two tabs: 'Identification' (active) and 'Local Embedding'. Under 'Identification', there is a 'Provider Type' dropdown menu with options: '- Select -', 'Database ONNX Model' (selected), 'Generative AI Service', and 'Custom PL/SQL'. Below this are input fields for 'Name' and 'Static ID' (containing 'db\_onnx\_model'). Under 'Local Embedding', there are dropdown menus for 'ONNX Model Owner' (containing 'ROOPESH') and 'ONNX Model Name' (containing 'DOC\_MODEL').

- A **Vector Provider** enables you to convert text into an embedding
- Available **Provider Types**: Database ONNX Model, Generative AI Service, Custom PL/SQL
- Vector Providers are stored at the **Workspace level**
- Use **APEX\_AI.GET\_VECTOR\_EMBEDDINGS** PL/SQL API to generate embeddings

# Vector Search Support in Search Configurations - Overview



Available exclusively on **Oracle Database 23ai**

Create **Search Configurations** on the table with Vector Data type columns

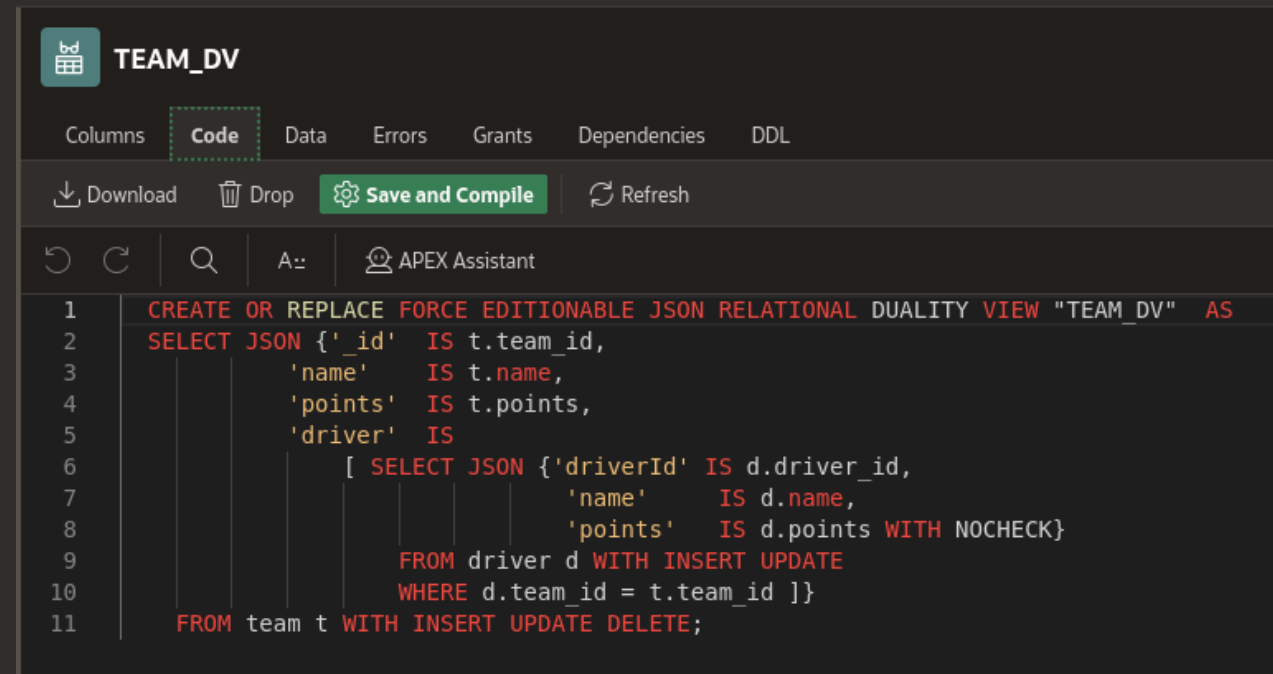
Results are returned based on **Vector Similarity**

# JSON Data Sources

Work directly with JSON data in your APEX apps!

## Create JSON Sources

- From a table with JSON in CLOB/BLOB columns (19c), or
- In **Oracle Database 23ai** using
  - Duality Views,
  - JSON Collection Tables,
  - JSON Collection Views.



The screenshot shows the Oracle APEX interface for a Duality View named 'TEAM\_DV'. The 'Code' tab is selected, displaying the SQL definition. The view is a FORCE EDITIONABLE JSON RELATIONAL DUALITY VIEW. It selects JSON data from a table 'team' (aliased as 't') and a subquery that selects JSON data from a table 'driver' (aliased as 'd') where 'd.team\_id' equals 't.team\_id'. The view includes columns for '\_id', 'name', 'points', and 'driver'. The 'driver' column is defined as a JSON object with 'driverId', 'name', and 'points' keys. The view is created with 'WITH INSERT UPDATE DELETE' privileges.

```
1 CREATE OR REPLACE FORCE EDITIONABLE JSON RELATIONAL DUALITY VIEW "TEAM_DV" AS
2 SELECT JSON {'_id' IS t.team_id,
3           'name' IS t.name,
4           'points' IS t.points,
5           'driver' IS
6             [ SELECT JSON {'driverId' IS d.driver_id,
7                           'name' IS d.name,
8                           'points' IS d.points WITH NOCHECK}
9               FROM driver d WITH INSERT UPDATE
10              WHERE d.team_id = t.team_id ]}
11 FROM team t WITH INSERT UPDATE DELETE;
```

## Resources

- Lab: Innovative Q&A Interface Powered by Generative AI  
[apex.oracle.com/go/nyc-genai](https://apex.oracle.com/go/nyc-genai)
- Office Hours: What's New in Oracle APEX 24.2  
[apex.oracle.com/go/playlist-242](https://apex.oracle.com/go/playlist-242)
- Oracle APEX Blog: [apex.oracle.com/blog](https://apex.oracle.com/blog)
- Demo Apps for JSON Sources:
  - [apex.oracle.com/go/json-app-23ai](https://apex.oracle.com/go/json-app-23ai)
  - [apex.oracle.com/go/json-app-19c](https://apex.oracle.com/go/json-app-19c)

# Become an Oracle APEX Pro: The Latest Learning Path You Need to Follow

Claim your Free Certification until October 31, 2025

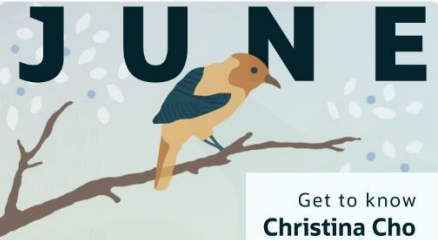


[apex.oracle.com/go/professional-ai-lp](https://apex.oracle.com/go/professional-ai-lp)

# Oracle APEX Newsletter

apex.oracle.com/go/newsletter

## Issues



Get to know  
Christina Cho

June 2025



Get to know  
John Kolden

July 2025



Get to know  
Sonali Inamdar

August 2025



Get to know  
Carlos Maciel

September 2025

## September 2025

Month

List

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-----|-----|-----|-----|-----|-----|
| 31  | 1   | 2   | 3   | 4   | 5   | 6   |
| 7   | 8   | 9   | 10  | 11  | 12  | 13  |
| 14  | 15  | 16  | 17  | 18  | 19  | 20  |
| 21  | 22  | 23  | 24  | 25  | 26  | 27  |

Webinar: APEX Security Basics | United Codes, Live! 9:00 AM - 10:00 AM % English

Webinar: What Is APEX OPEN\_QUERY\_CONTEXT, and Why, When and Where Do You Care? 11:00 AM - 12:00 PM % English

Webinar: Practical AI in PL/SQL Made Easy | United Codes, Live! 9:00 AM - 10:00 AM % English

Webinar: Five steps to implement image semantic search in Oracle APEX 11:00 AM - 12:00 PM % English

Office Hours: AI at Work in Oracle APEX: Real Projects, Real Results 12:00 PM - 12:45 PM % English

Conference: German Low-Code Day 2025 8:00 AM - 6:00 PM % English

Webinar: AUSOUG APEX SERIES 2025: RESTing on your Legacy? (Brad Cardinal) 8:00 AM - 9:00 AM % English

Webinar: DevTalk: Oracle APEX & AI 5:00 PM - 6:00 PM % German

Office Hours: Gestionarea proceselor de business cu APEX Workflow 8:00 AM - 9:00 AM % Romanian

Conference: Oracle APEX Day in Paris 9:30 AM - 5:00 PM % English

Office Hours: What's New in Flows for APEX v25.1 - Smarter BPMN Workflows with AI, Suspend & Rewind 10:00 AM - 11:00 AM % English





## Fifth Question

**The APEX certification is available for Free until?**

- a) November 1st
- b) October 31<sup>st</sup>
- c) December 1st

# Summary

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# Oracle APEX

## Summary

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- Oracle APEX is a strategic platform for the generative development of enterprise apps.
- Everyone can collaborate to quickly describe, iterate, and deliver sophisticated, data-centric enterprise solutions with AI assistance.
- Using both natural language and declarative builders, you capture the intent of your business solutions and the data they require, staying focused on the **WHAT** instead of the **HOW**.

# Thank You

---

**Monica Godoy**

Senior Principal Product Manager

Monica.godoy@oracle.com



ORACLE

# APEX Day in Paris

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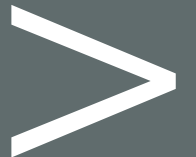
En partenariat avec



En collaboration avec



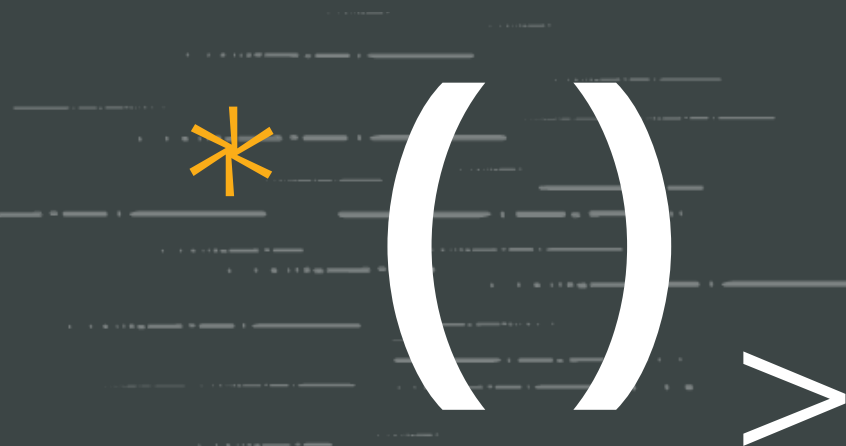
ā'pěks  
(#orclapex)



ORACLE

APEX Day in Paris

# What's new and what's next in Oracle APEX?



**Marc Sewtz**

Senior Director, Software Development, Oracle Corporation

En partenariat avec



**SQORUS**  
People And Solutions That Matter



En collaboration avec





**Marc Sewtz**

Senior Director of Software Development

Oracle APEX



1998

Oracle Consulting in Hamburg

1998 – 2000

Bertelsmann Books Online (BOL) in New York City

1999 – 2002

Oracle Consulting in the US

2000 – 2001

City of Chicago -Web Bid & Compliance

2001 – 2002

Chicago Police Department - Forms Migration

2002 - today

Oracle APEX Development Team, New York City

[marc.sewtz@oracle.com](mailto:marc.sewtz@oracle.com)

[www.linkedin.com/in/msewtz](https://www.linkedin.com/in/msewtz)



## Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

# Agenda

**Create Database**

**App Generation**

**AI Tools**

**Maps &  
Sample Data**

**APEXlang**

# Generative AI in Oracle APEX

## AI Assisted Application Generation

- Transforming every phase of application development
- Extends beyond coding: debugging, testing, learning, and more
- Empowers developers through natural language interfaces
- Rapidly evolving landscape of LLMs
- Flexible deployment: private self-hosted or public cloud-based solutions

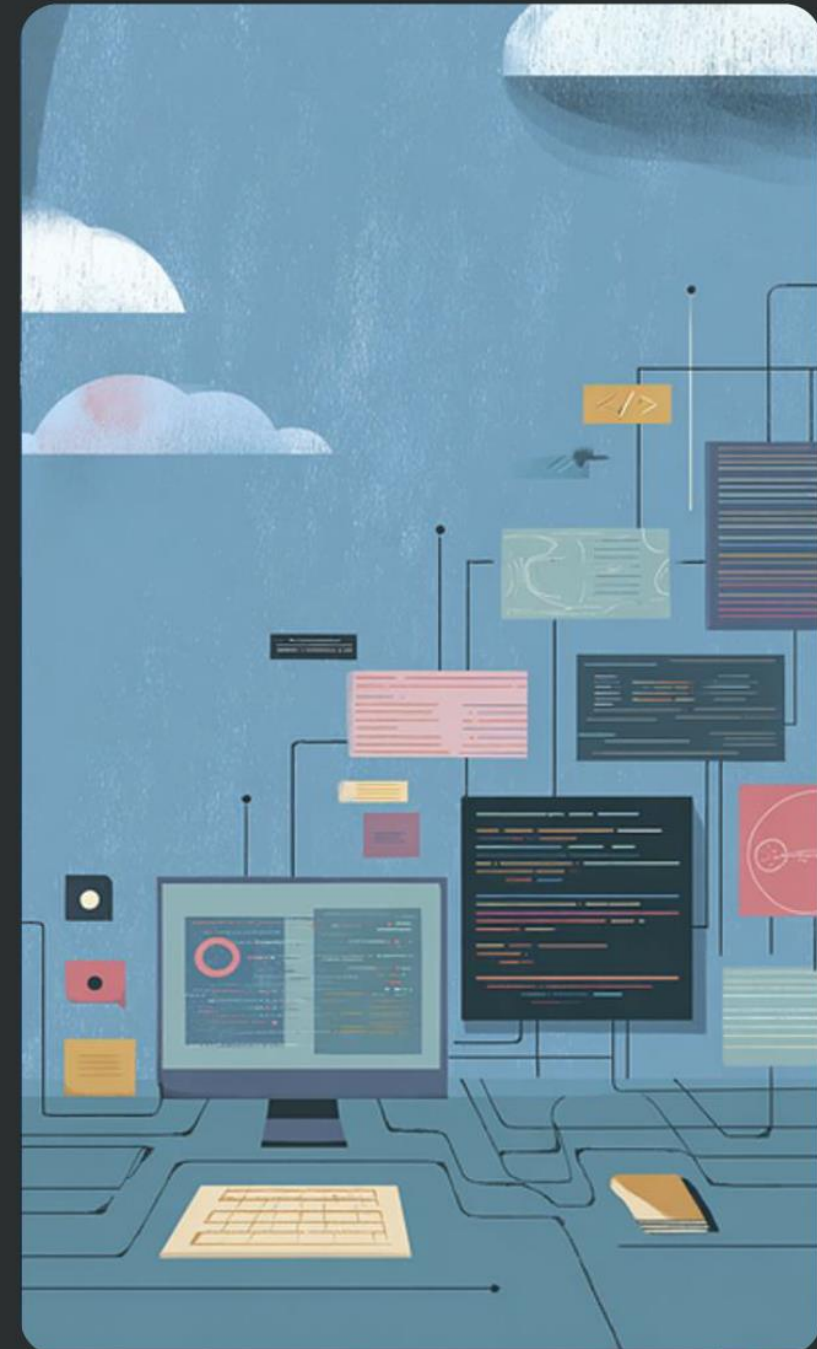
## AI Enhanced Applications

- Natural language interfaces for intuitive user experiences
- Conversational and context-aware interactions
- Automated data summarization and actionable insights
- Seamless integration of private data with LLM knowledge
- Dynamic generation of charts and visualizations

# AI Assisted Application Generation

# AI Assisted Application Generation

- **Conversational generation** – use natural language to describe your app and have it generated
- **Abstracted by design** – APEX's model-driven architecture captures intent as metadata, not low-level code
- **AI-assisted refinement** – accelerate development through iterative guidance



# Create Custom Data Models

- Create your own schemas from a prompt
- Generate scripts either in **Oracle SQL** or **Quick SQL** format
- Build a Data Model and generate Sample Data

### APEX Assistant

This assistant lets you use natural language to generate a data model and sample data. Use it to jump-start the creation of a schema to build your application on.

Let's create a data model together. Describe the kind of elements you want your data model to include.

Create a data model for managing project and task data. MA

Thank you for your input. Let's create a data model that efficiently manages project and task data, focusing on key relationships, attributes, and constraints.

```
sql
-- create tables
create table pt_projects (
  id                number          generated by default on
null as identity                                constraint pt_projects_pk
primary key,
  project_name      varchar2(255)  not null,
  start_date        date            not null,
  end_date          date,
  status            varchar2(50)   not null
check (status in ('Not
Started', 'In Progress', 'Completed', 'On Hold'))),
```

This data model consists of two main tables: **pt\_projects** for project details, and **pt\_tasks** for individual tasks related to these projects. Key constraints and indexes ensure data integrity and efficient querying.

1. What specific details or attributes should be included for tasks or projects in the data model?
2. Are there any additional relationships or entities needed to fulfill your data management requirements?

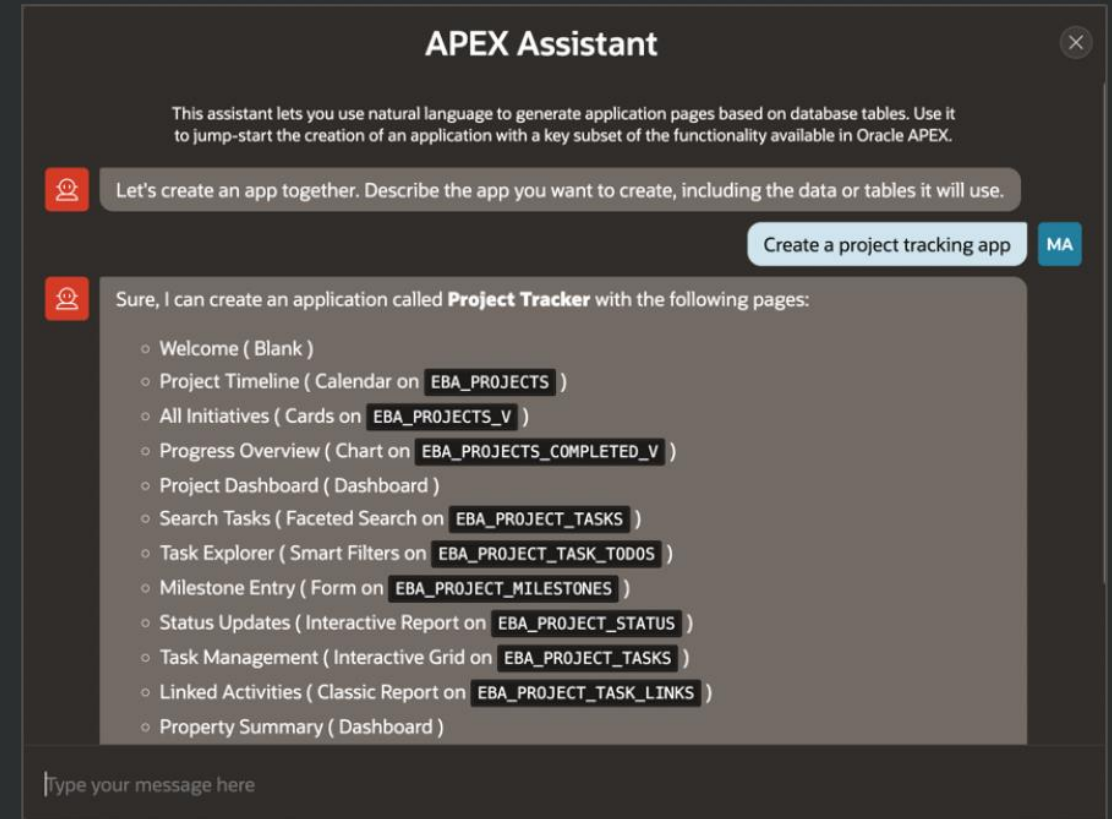
Create SQL Script

Type your message here

SQL Format **Oracle SQL** Quick SQL

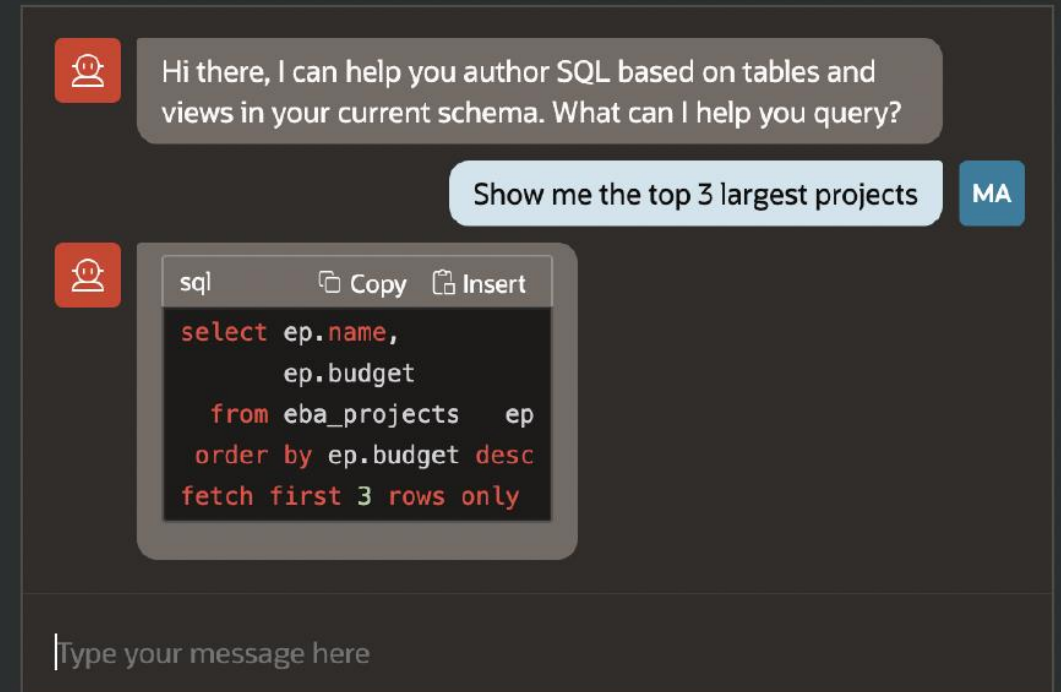
# Create Apps using Natural Language

- Describe the pages, data, and features you want, and the **APEX AI Assistant** will generate a **tailored application blueprint** to get you started.
- Refine the application using the full Create App wizard or instantly generate the app to begin working right away.



# AI-Assisted SQL Authoring

- APEX AI Assistant helps you **author SQL queries** over your application data model by understanding a **natural language** description of what data you want to retrieve.
- **Augment existing queries** by explaining the additional information to include.
- Frees you from having to lookup exact database table and column names or precise SQL syntax to achieve a result.



## Create page from natural language

- **Natural Language Page Creation:** Allows developers to create new pages using natural language prompts, extending the experience introduced in the Create App wizard.
- **AI-Assisted Page Suggestions:** The APEX Assistant suggests page types, names, and associated tables based on the user's natural language input.
- **Integrated in Create Page Wizard:** When AI is enabled, the APEX Assistant tab becomes available, enabling quick page generation or iterative refinement directly from the wizard.

# Demo: AI Assisted Application Generation

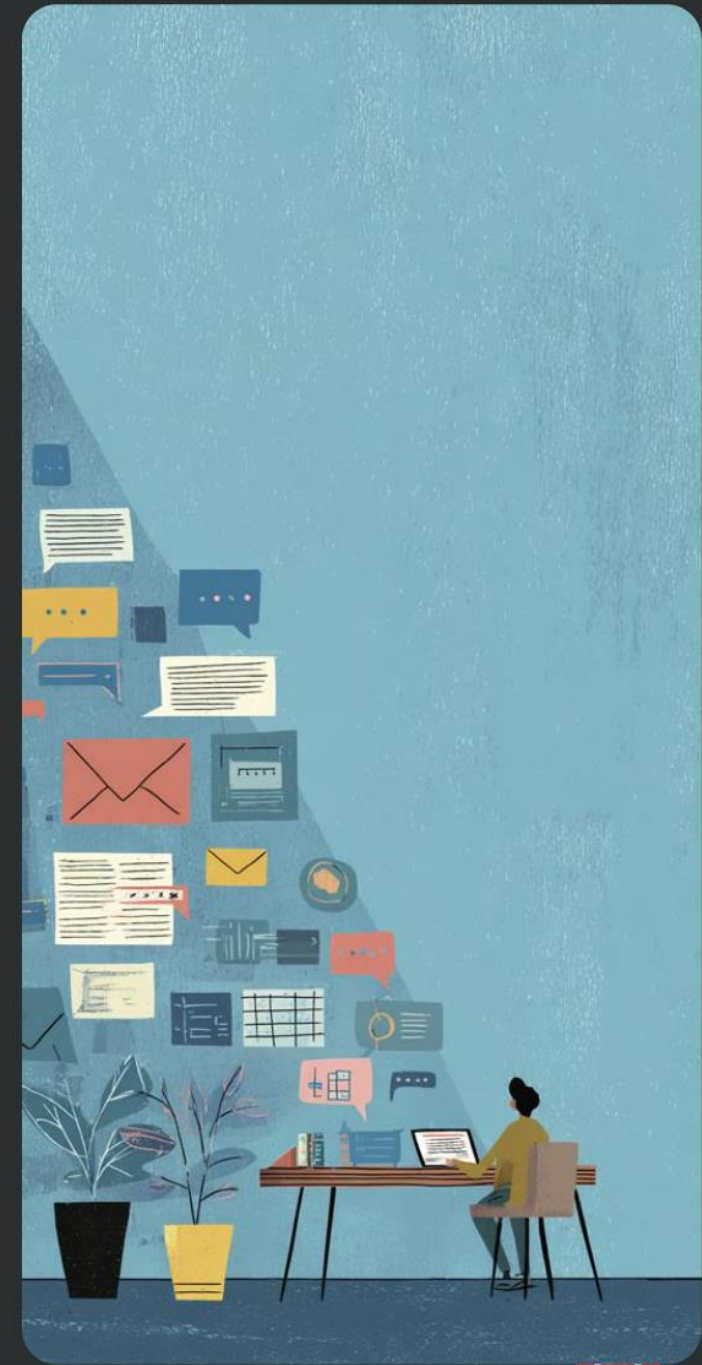
# AI Enhanced Applications

# AI-Powered Apps

**Natural language reporting & insights** – APEX not only generates secure reports, but it also adapts existing ones with filters, formatting, and visualizations through natural language.

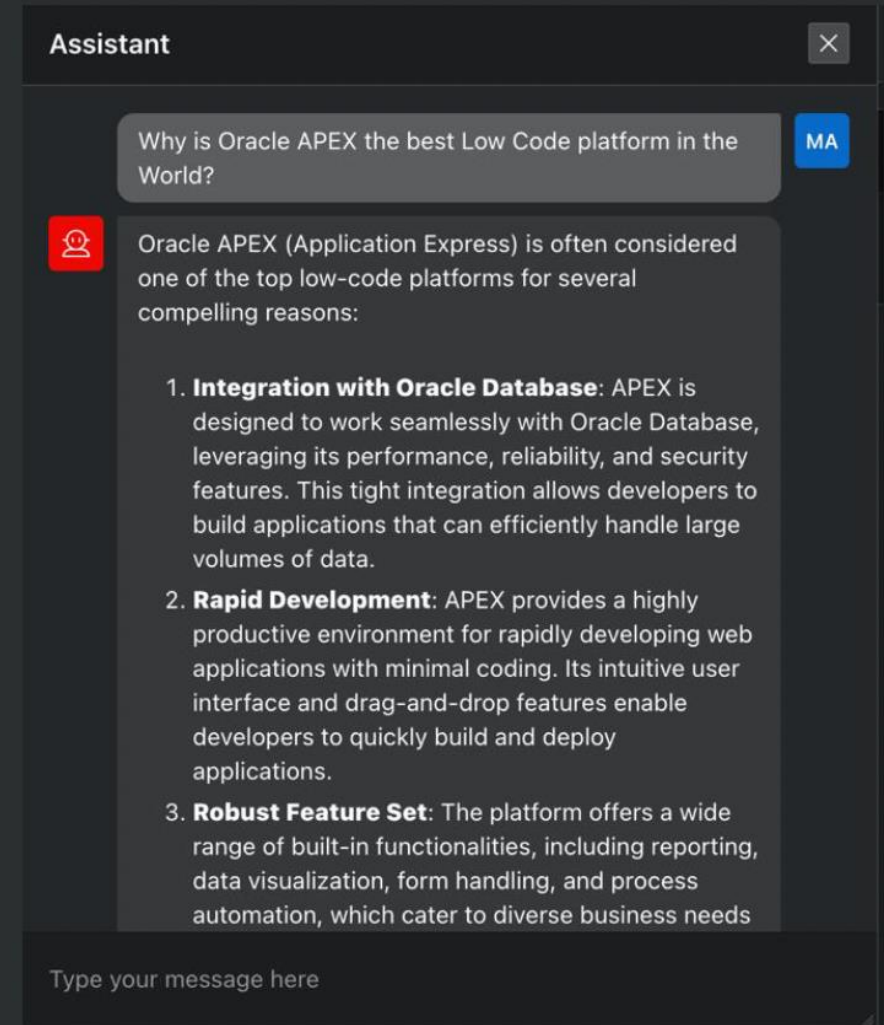
**Native agentic capabilities** – apps can be extended to take action, automate workflows, and orchestrate tasks.

**Driven by metadata & SQL** – ensuring insights are accurate, secure, and sourced from your database.



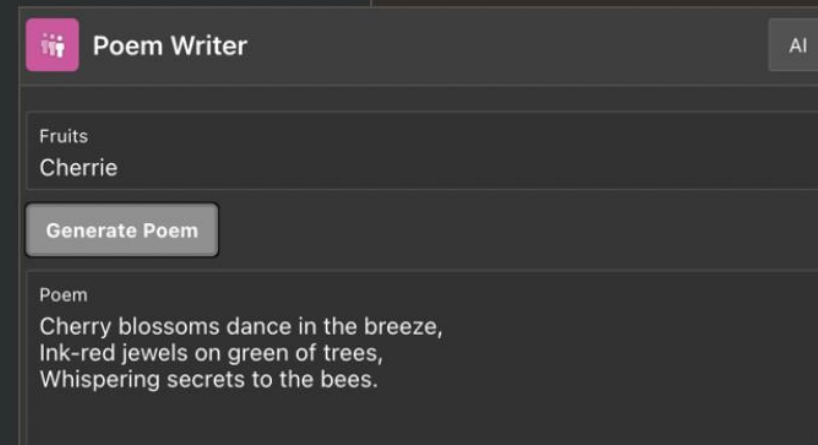
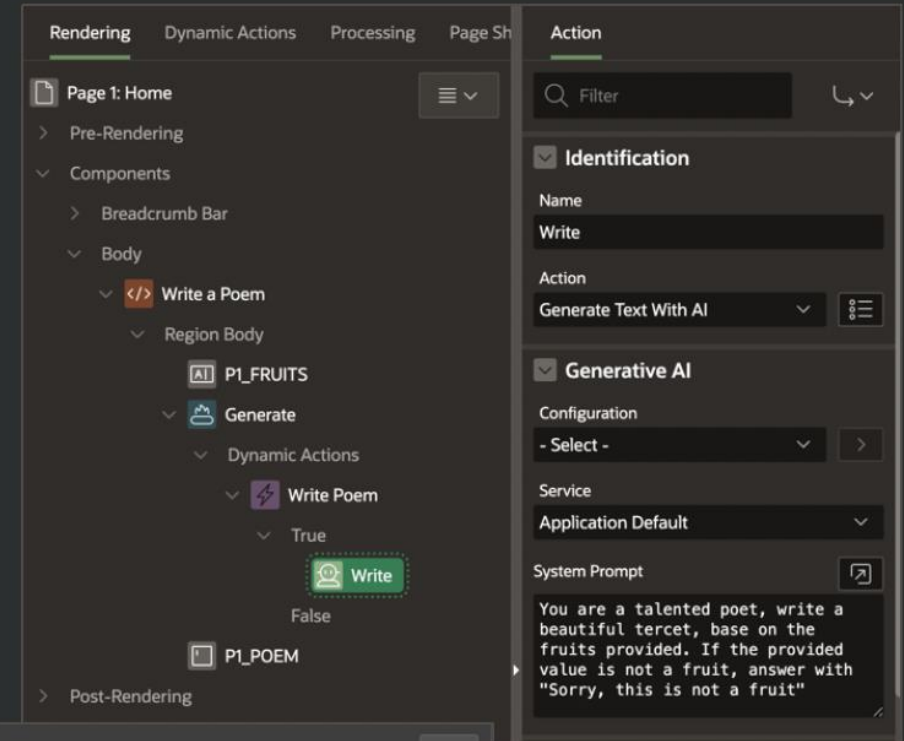
# Conversational AI Dialogs

- Easily configure **AI-powered conversational experiences** using a new dedicated Dynamic Action.
- Provide the system prompt, welcome message via **AI Configuration**.
- Customize the appearance, choosing whether to display the AI assistant within a modal dialog or inline directly on your page.



# Generate Text with AI

- New Dynamic Action “**Generate Text with AI**”
- Leverages Generative AI services
- Generate a **one-time response** based on user content
- **Configurable** System Prompt, Input Value, and Use Response attributes



# Retrieval-Augmented Generation (RAG)

- Improve AI Assistant responses by including additional context from SQL queries, function outputs, or static text.
- **RAG sources** can be conditional and are dynamically re-evaluated with each user prompt, ensuring accurate and up-to-date replies.
- A new shared component for **AI Configurations** bundles the system prompt, welcome message, and any number of RAG sources into a reusable setup.

### Generative AI Configuration

System Prompt

APEX Assistant

1 You are a Sales Assistant chatbot designed to help users with their orders and product inquiries.  
2 You have access to the user's order history and current product catalog.  
3 Your tasks include assisting with order status queries, product recommendations, product availability,  
4 Aim to provide concise, accurate, and helpful responses.

Welcome Message

APEX Assistant

1 Welcome to My APEX Sales Portal. How can I help you?

RAG Sources

| Name            | Description                             | Type      | Conditional | Updated        |
|-----------------|-----------------------------------------|-----------|-------------|----------------|
| Order Details   | This contains all customer orders       | SQL Query | Yes         | 69 seconds ago |
| Product Catalog | Catalog of active products in inventory | SQL Query |             | 29 seconds ago |

## Generative AI Tools

- Leading AI providers now support a feature called **Function Calling (or Tools)**, enabling LLMs to request specific information using structured JSON functions.
- Instead of sending excessive details up front, we provide a **list of supported functions** with parameters, allowing the model to fetch only what's needed.
- This **improves accuracy, reduces unnecessary data transfer**, and makes responses more efficient.

# Generative AI Tools

## Use Cases

- Request metadata for a specific database table, such as column names, data types, or foreign key relationships
- Retrieve information about particular products or customers
- Query real-time updates from inventory or sales data
- Access the user's current location (latitude and longitude) via the browser or device

# Generative AI Tools

## Built-in AI Provider Tools

- Executed on the LLM server
- Examples from OpenAI: Web Search, File Search, Computer Use

## Custom Tools (Functions)

- Defined by the developer
- Triggered by the LLM when needed
- Run on the application server (Database)
- Supported by all major LLM providers: OpenAI, OCI Gen AI, Cohere, Gemini, Claude, Grok, etc.
- Examples: `get_user_details`, `query_data`, `send_email`, `start_workflow`, etc.

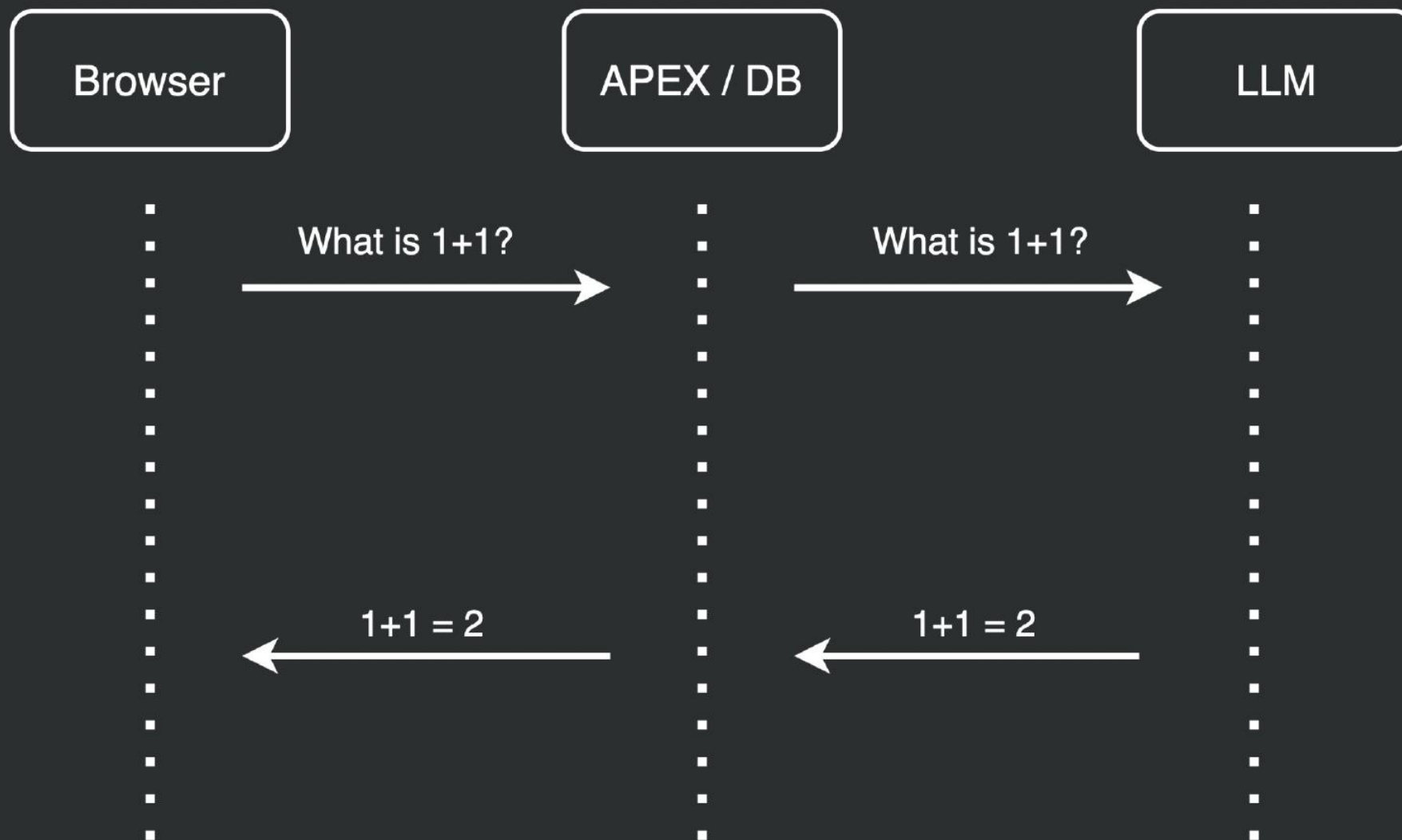
# AI Tools - Structure & Lifecycle

## Lifecycle

1. The database generates an LLM request and specifies the available tools
2. The LLM evaluates whether a tool is needed and selects one if applicable
  - The LLM responds with the selected tool name and required parameters
  - The server executes the tool and returns the result
  - The LLM may invoke another tool and repeat from step 2
3. The LLM composes and delivers the final response

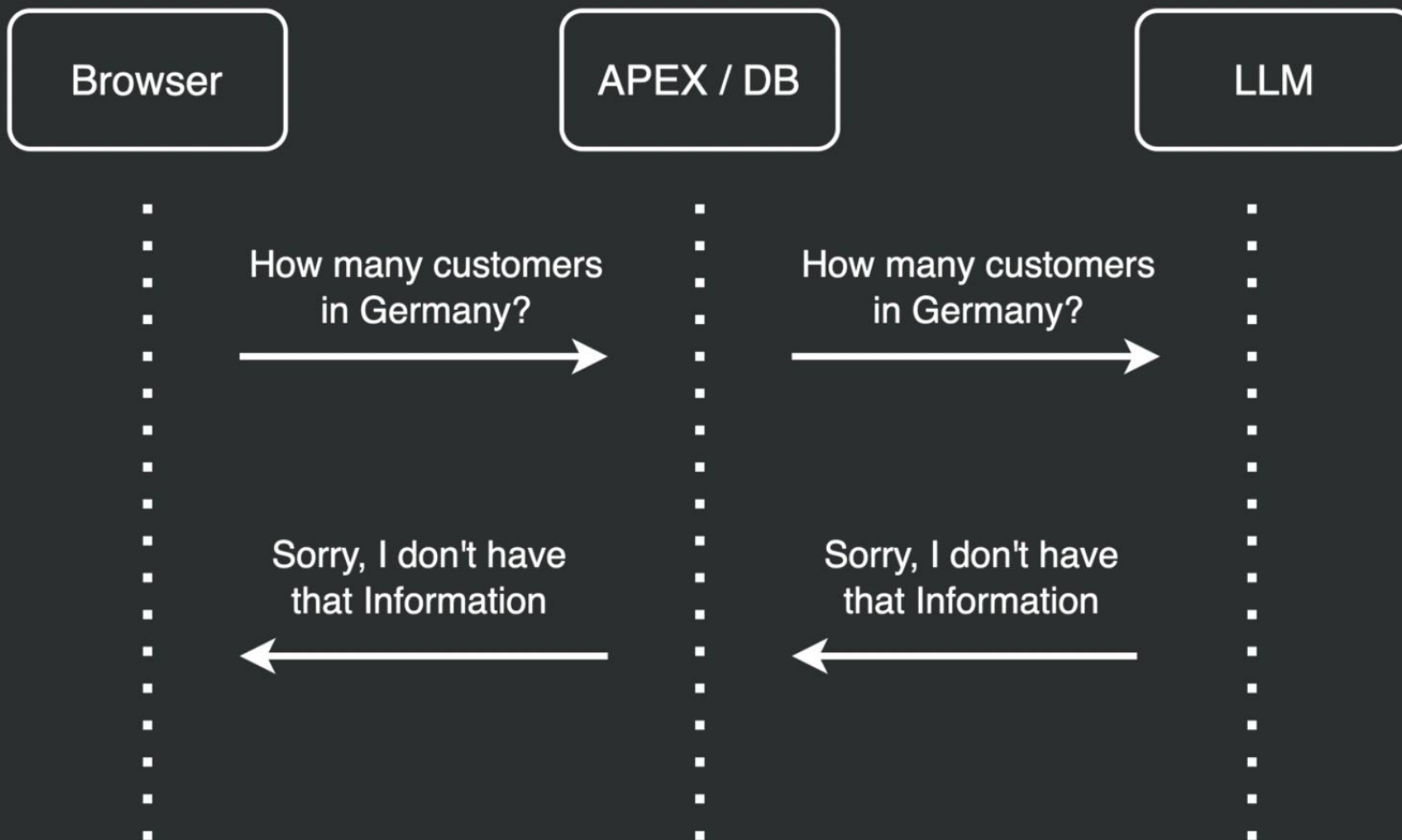
COMING  
SOON

## AI Tools – Sample Flow



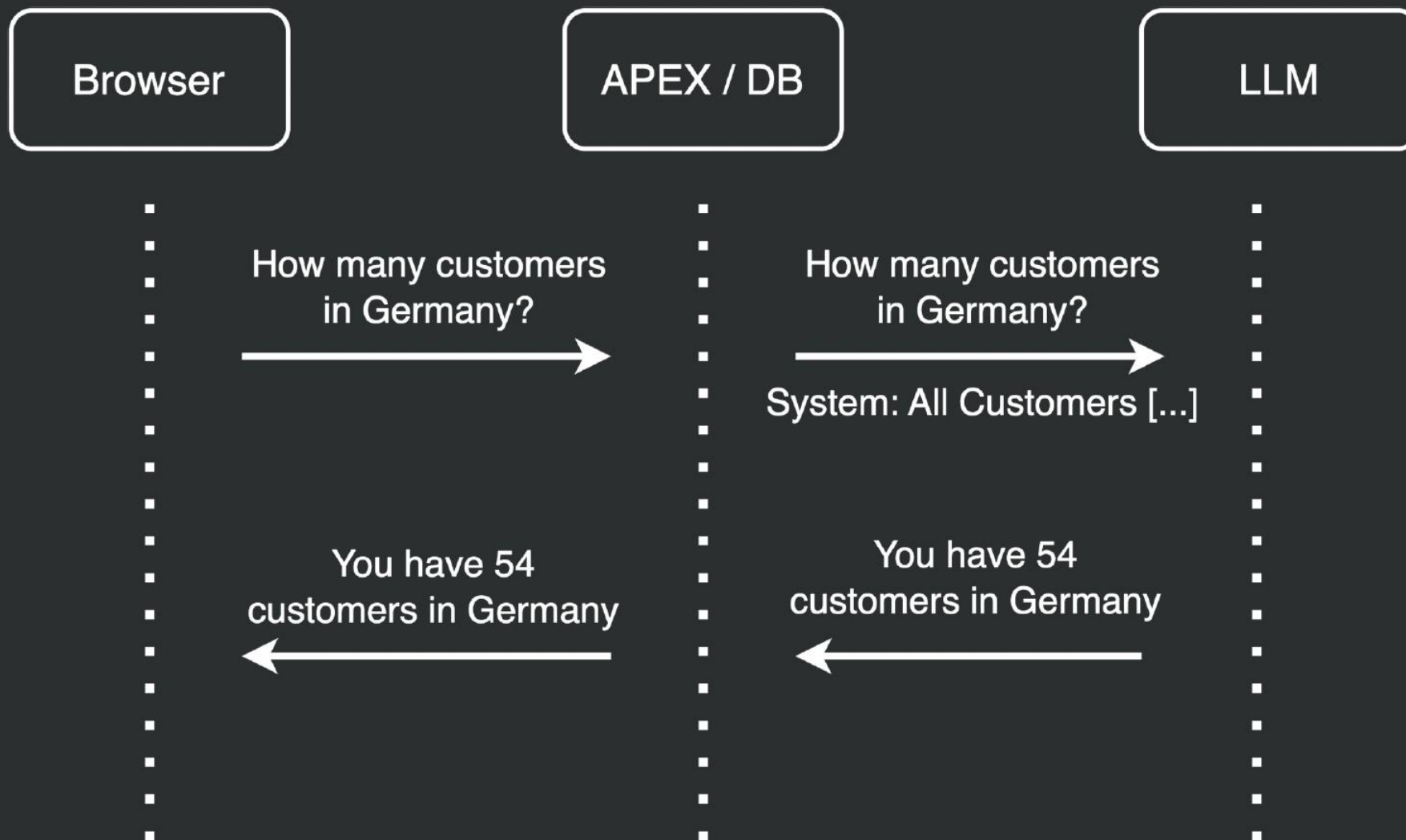
COMING  
SOON

## AI Tools – Sample Flow



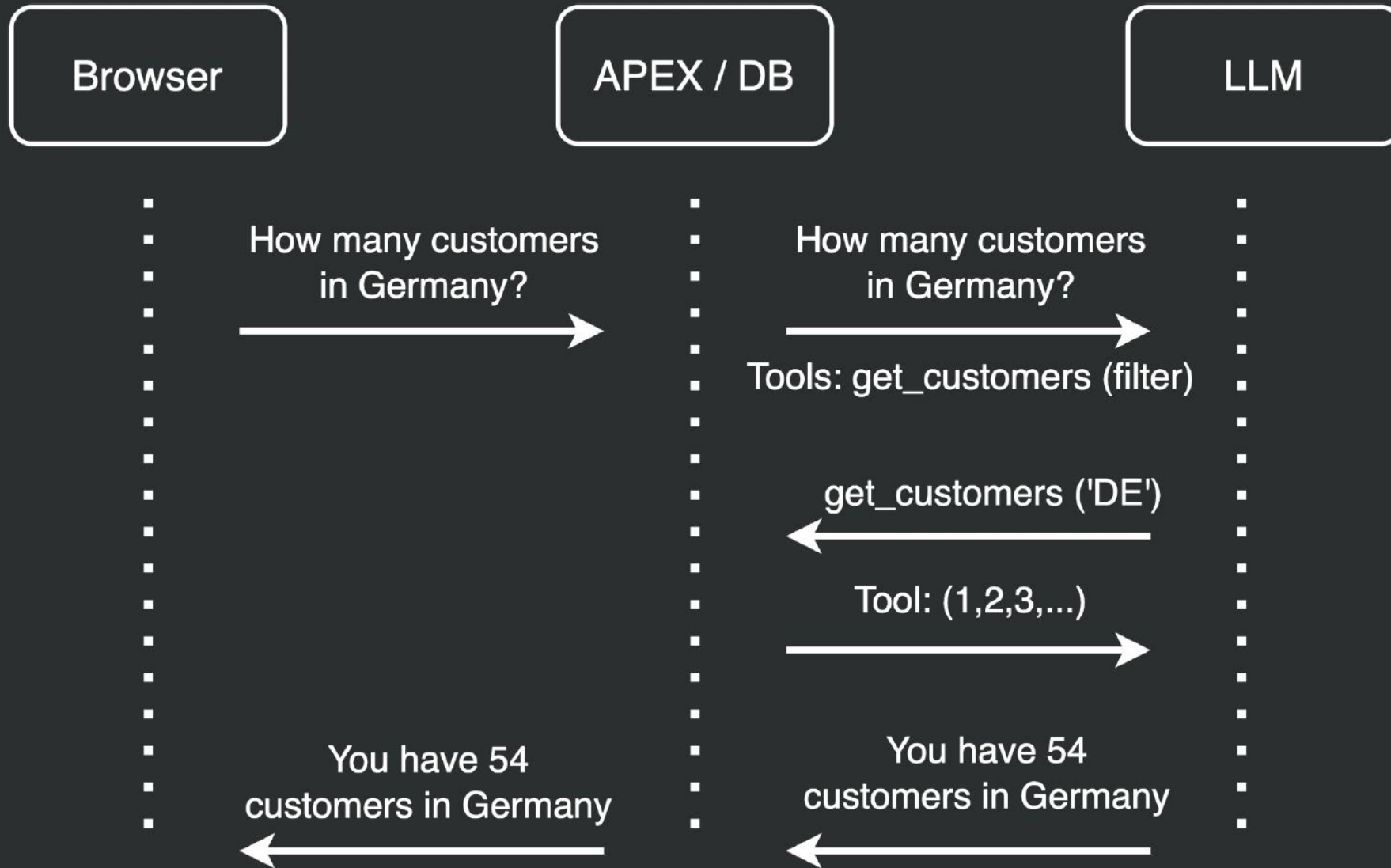
COMING  
SOON

## AI Tools – Sample Flow



COMING  
SOON

## AI Tools – Sample Flow



## AI Tools - Benefits

- **Smaller Payloads**
  - Only essential data is sent with the initial request, reducing overhead and improving performance by excluding unnecessary context.
- **Improved RAG (Retrieval-Augmented Generation)**
  - Contextual data can be selectively retrieved and injected based on user input, ensuring more accurate, relevant, and timely responses.
- **More Powerful AI Assistant Interactions**
  - AI Assistants can dynamically decide which tools to use, enabling richer conversations, and more intelligent task handling:
    - Query Data (e.g., get\_person\_details)
    - Execute Tasks (e.g., send\_email)

# Demo: RAG & AI Tools

## AI Vector Search



- Vector Search enables AI-powered **similarity search** within the Oracle Database by storing and querying data as vectors.
- It allows you to find relevant text, images, or documents **based on meaning** - not just exact matches - making it ideal for semantic search, recommendations, and generative AI applications.
- Vector Search requires **Oracle Database 23ai**
- Sample Vector Search Application included in APEX 24.2

# Natural Language Reporting & Insights

Brings AI directly into APEX's most popular feature, Interactive Reports. Enables users to apply formatting, filters, highlights, and visualizations without needing to navigate menus. An LLM interprets the input and applies structured changes through APEX's declarative engine.

Once enabled, this feature **brings immediate value to existing applications** — no application changes required:

- **Natural Language Input:** Users can say things like “group by region and show totals” to instantly apply report formatting, filters, or visualizations. Behind the scenes, LLMs translate natural language input into structured, valid JSON that is parsed by the APEX engine — no SQL is generated or executed.
- **Interactive & Editable:** LLM-generated customizations display as UI "chips" that are easy to understand and edited.
- **Always Accurate:** The LLM parses natural language input and simply translates that into declarative report settings — ensuring consistent behavior and eliminating the risks of free-form SQL generation.

# Natural Language Reporting - JSON Responses

## Filtering

```
{
  "filter": [
    {
      "columnName": "PRODUCT",
      "operator": "EQ",
      "columnValue": "Toothpaste"
    },
    {
      "columnName": "STORE_CITY",
      "operator": "EQ",
      "columnValue": "Chicago"
    }
  ]
}
```

## Highlighting

```
{
  "highlight": [
    {
      "columnName": "STORE_CITY",
      "operator": "=",
      "columnValue": "Chicago",
      "highlightColor": "#0000FF",
      "highlightType": "ROW"
    }
  ]
}
```

## Chart

```
{
  "chart": [
    {
      "chartType": "pie",
      "chartLabelColumn": "STORE_CITY",
      "chartLabelTitle": "Store City",
      "chartValueColumn": "INVENTORY_COUNT",
      "chartAggregate": "SUM",
      "chartValueTitle": "Total Inventory",
      "chartSorting": "DEFAULT",
      "chartOrientation": "vertical"
    }
  ]
}
```

# Demo: Natural Language Reporting & Insights

# Maps

---



## Map Region Support for Vector Tile Layers

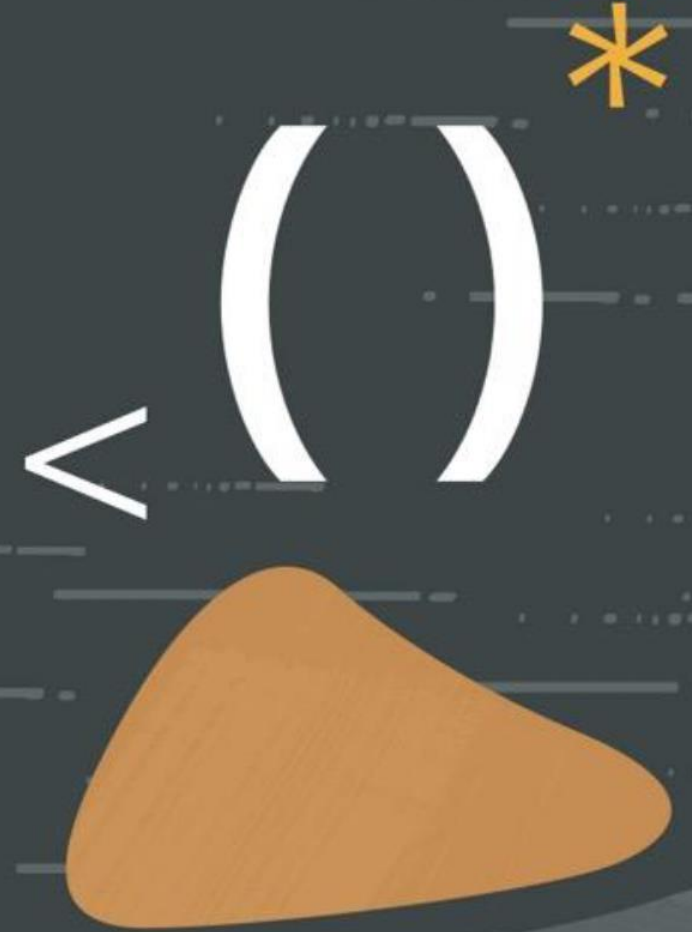
### Map Region Support for Vector Tile Layers

- **Improved Performance:** Reduces client-side load by replacing large JSON payloads with compact, binary vector tiles (**PBF format**).
- **Efficient Data Transfer:** Leverages Oracle Database's `get_vectortile` function to generate compressed vector tiles directly in the database.
- **Optimized for Scale:** Minimizes data overhead and enhances rendering speed, especially for maps with thousands of geometries.



# Sample Data

---



COMING  
SOON

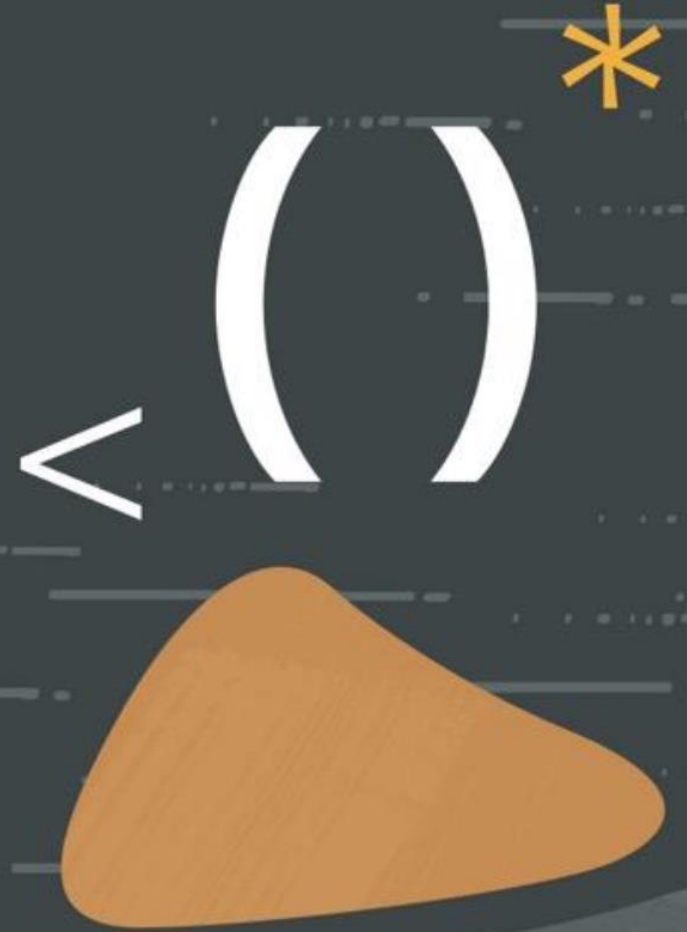
## Sample Data

### Sample Data

- Enables **quick component creation** by using built-in sample data without needing to define a data source.
- Supports **tailored sample data per component type** to ensure appropriate visuals, with flexibility for plug-in developers to define their own demo queries.
- Helps developers **build UI mockups faster** and independently of backend data availability.
- Lets UI developers focus on layout while data source developers define actual queries or REST sources later.

The screenshot shows a 'Create Classic Report' dialog box with a close button (X) in the top right corner. The dialog is divided into three main sections: 'Page Definition', 'Data Source', and 'Navigation'. In the 'Page Definition' section, there is a 'Page Number' field with the value '10', a 'Name' text input field, a 'Page Mode' section with 'Normal' selected (along with 'Modal Dialog' and 'Drawer' options), and an 'Include Form Page' toggle switch. The 'Data Source' section contains a 'Data Source' dropdown menu currently set to 'Sample Data'. The 'Navigation' section has a 'Use Breadcrumb' toggle switch and a 'Breadcrumb Parent Entry' dropdown menu. At the bottom, there are three buttons: a back arrow, a 'Cancel' button, and a green 'Create Page' button.

# APEXlang



# APEXlang

APEXlang is a **human-readable** language that defines Oracle APEX applications as files, **enabling** modern file-based workflows and unlocking future **AI-powered development**.

## What is APEXlang?

### Language for APEX

- Defines every aspect of an APEX application

### Human-readable file format (.apex)

- Easily imported/exported from the APEX engine

### Highly abstracted

- Focus on what, not how

### Documented public grammar

- Enables tool integration and ecosystem growth

## Why APEXlang?

### Version Control Friendly

- Enables GitHub-based artifact management, diff & merge

### AI-Ready

- Easily generate and modify apps, pages, and components

### Enables development in VSCode

- Works with both assistant tools and traditional IDEs

### Enables Static Analysis

- Supports best practices and security reviews

### Open & Differentiated

- Unlike proprietary competitors

# APEXlang - Project Structure

## Left side:

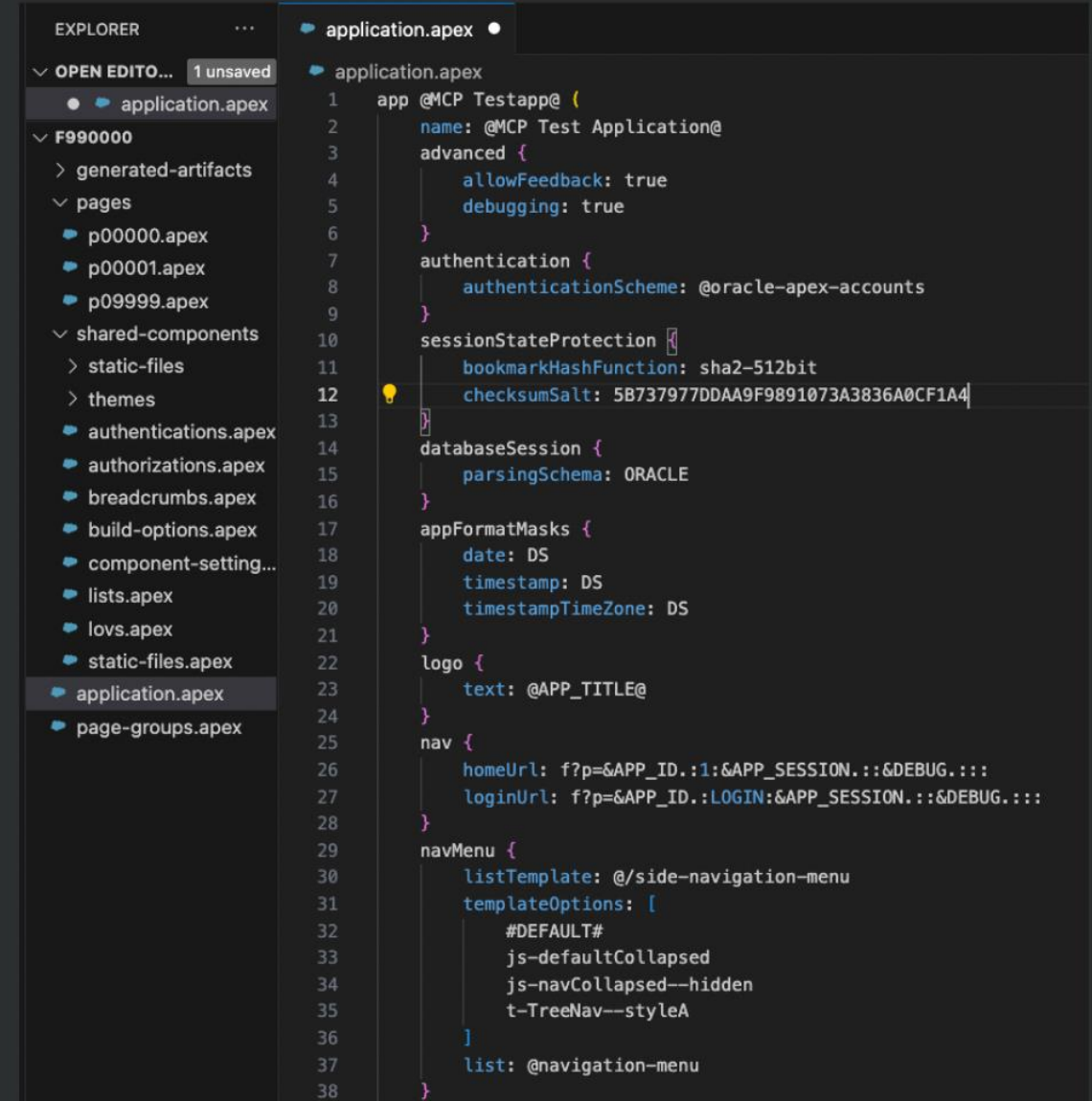
A structured project with folders for pages, shared components, and the main app definition in application.apx

## Right side:

The Testapp is defined in clear text — including name, version, authentication, authorization, session settings, security, globalization, and logo.

## Why it matters:

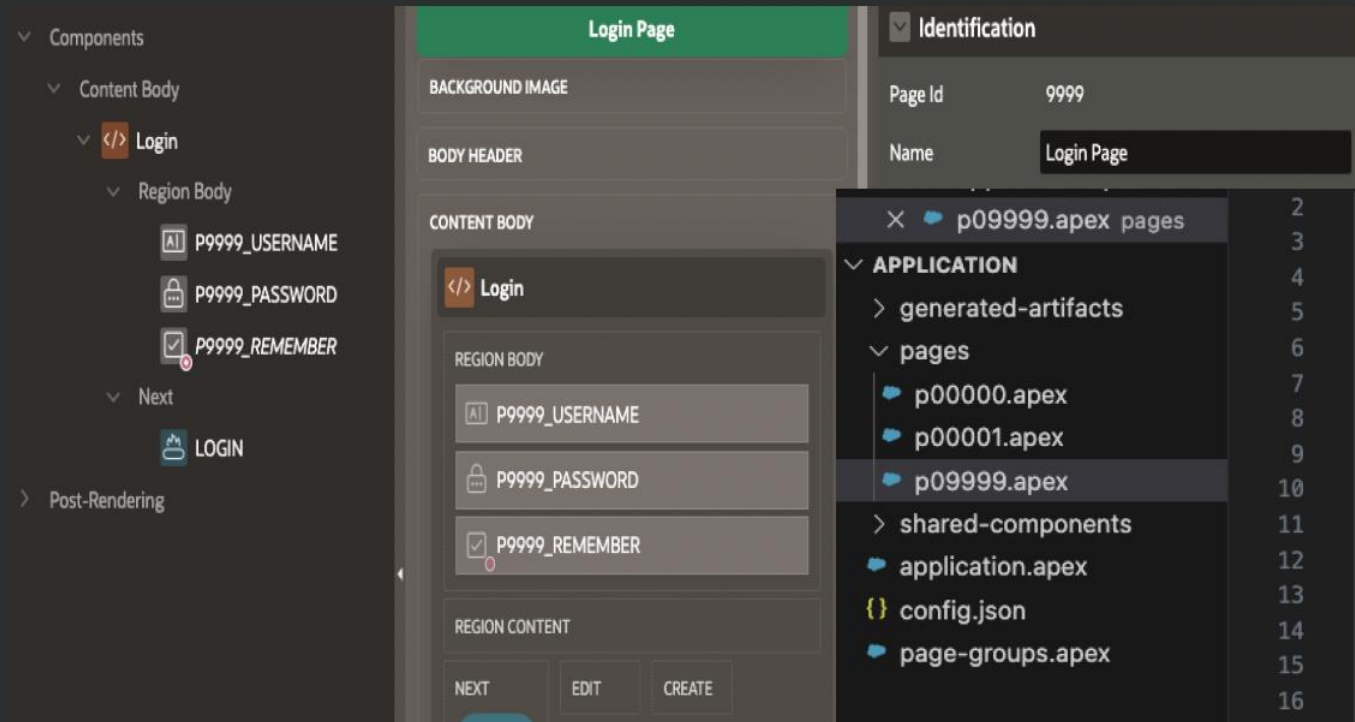
APEXlang turns APEX apps into readable code



The screenshot displays an IDE interface. On the left, the 'EXPLORER' panel shows a project structure for 'application.apex'. The structure includes a 'generated-artifacts' folder, a 'pages' folder with files 'p00000.apex', 'p00001.apex', and 'p09999.apex', a 'shared-components' folder with subfolders 'static-files' and 'themes', and a list of component files: 'authentications.apex', 'authorizations.apex', 'breadcrumbs.apex', 'build-options.apex', 'component-setting...', 'lists.apex', 'lovs.apex', 'static-files.apex', 'application.apex' (selected), and 'page-groups.apex'. The main editor on the right shows the content of 'application.apex' as a JSON-like configuration. The configuration includes fields for 'name', 'advanced' settings (allowFeedback, debugging), 'authentication' (authenticationScheme), 'sessionStateProtection' (bookmarkHashFunction, checksumSalt), 'databaseSession' (parsingSchema), 'appFormatMasks' (date, timestamp, timestampTimeZone), 'logo' (text), 'nav' (homeUrl, loginUrl), and 'navMenu' (listTemplate, templateOptions, list).

```
1  app @MCP Testapp@ (  
2    name: @MCP Test Application@  
3    advanced {  
4      allowFeedback: true  
5      debugging: true  
6    }  
7    authentication {  
8      authenticationScheme: @oracle-apex-accounts  
9    }  
10   sessionStateProtection {  
11     bookmarkHashFunction: sha2-512bit  
12     checksumSalt: 5B737977DDAA9F9891073A3836A0CF1A4  
13   }  
14   databaseSession {  
15     parsingSchema: ORACLE  
16   }  
17   appFormatMasks {  
18     date: DS  
19     timestamp: DS  
20     timestampTimeZone: DS  
21   }  
22   logo {  
23     text: @APP_TITLE@  
24   }  
25   nav {  
26     homeUrl: f?p=&APP_ID.:1:&APP_SESSION.::&DEBUG.:::  
27     loginUrl: f?p=&APP_ID.:LOGIN:&APP_SESSION.::&DEBUG.:::  
28   }  
29   navMenu {  
30     listTemplate: @/side-navigation-menu  
31     templateOptions: [  
32       #DEFAULT#  
33       js-defaultCollapsed  
34       js-navCollapsed--hidden  
35       t-TreeNav--styleA  
36     ]  
37     list: @navigation-menu  
38   }
```

# APEXlang - Page Definition



But did you know that you can represent the same view in your favorite IDE?

This might look familiar ... it's the Page Designer View

```
2  × p09999.apex pages
3
4  < APPLICATION
5  > generated-artifacts
6  < pages
7  |   p00000.apex
8  |   p00001.apex
9  |   p09999.apex
10 > shared-components
11 |   application.apex
12 |   {} config.json
13 |   page-groups.apex
14
15
16
17
18
19
20
21
22
23
24
25
```

```
name: Login Page
alias: LOGIN
title: MCP Test App - Log In
appearance {
  pageTemplate: @/login
  templateOptions: #DEFAULT#
}
nav {
  warnOnUnsavedChanges: false
}
security {
  authentication: public
  pageAccessProtection: argumentsMustHaveChecksum
  formAutoComplete: false
}

region login (
  name: Login
  title: MCP Test App
  type: staticContent
  layout {
    sequence: 10
    slot: BODY
  }
}
```

ORACLE

# APEX Day in Paris

---

En partenariat avec



En collaboration avec



ā'pěks  
(#orclapex)



ORACLE

APEX Day in Paris

# What's new and what's next in Oracle APEX?



**Sonja Meyer**

Consulting Member of Technical Staff, Oracle Corporation

En partenariat avec

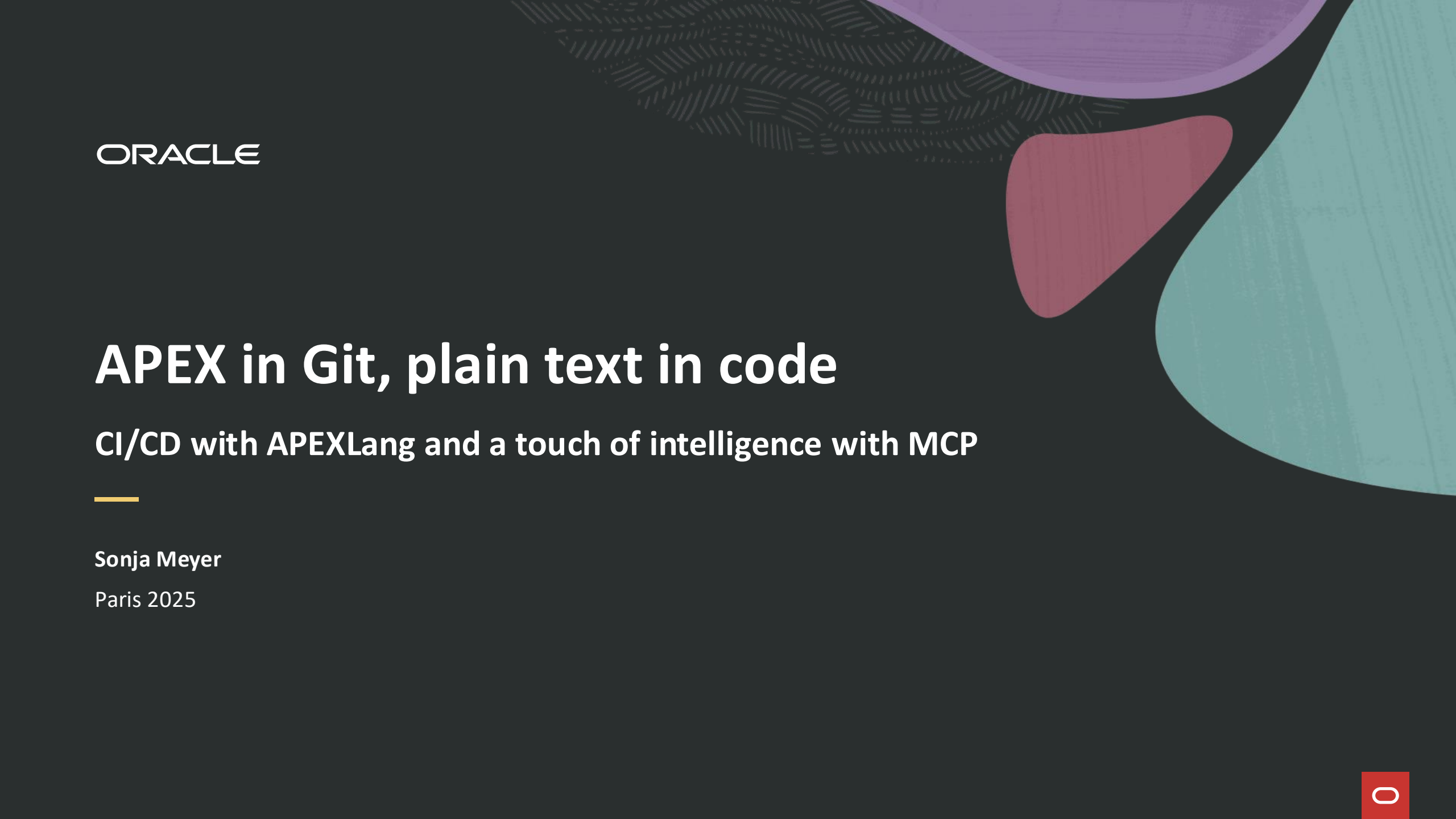


**SQORUS**  
People And Solutions That Matter



En collaboration avec





ORACLE

# APEX in Git, plain text in code

CI/CD with APEXLang and a touch of intelligence with MCP

---

Sonja Meyer

Paris 2025

# Safe Harbour Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

# Agenda

## Introduction

A brief history of how we used AI services.

## MCP

The Model Context Protocol opens a new world.  
Lets demo...

## APEXlang

A new export and import format for APEX to facilitate CI/CD.  
Lets demo again...

## Q&A

Time for your questions and answers.



<https://www.linkedin.com/in/sonnemeyer/>



<https://www.twitter.com/sonjameyer79>



<https://medium.com/@sonja.meyer>



<https://bsky.app/profile/sonne79.bsky.social>



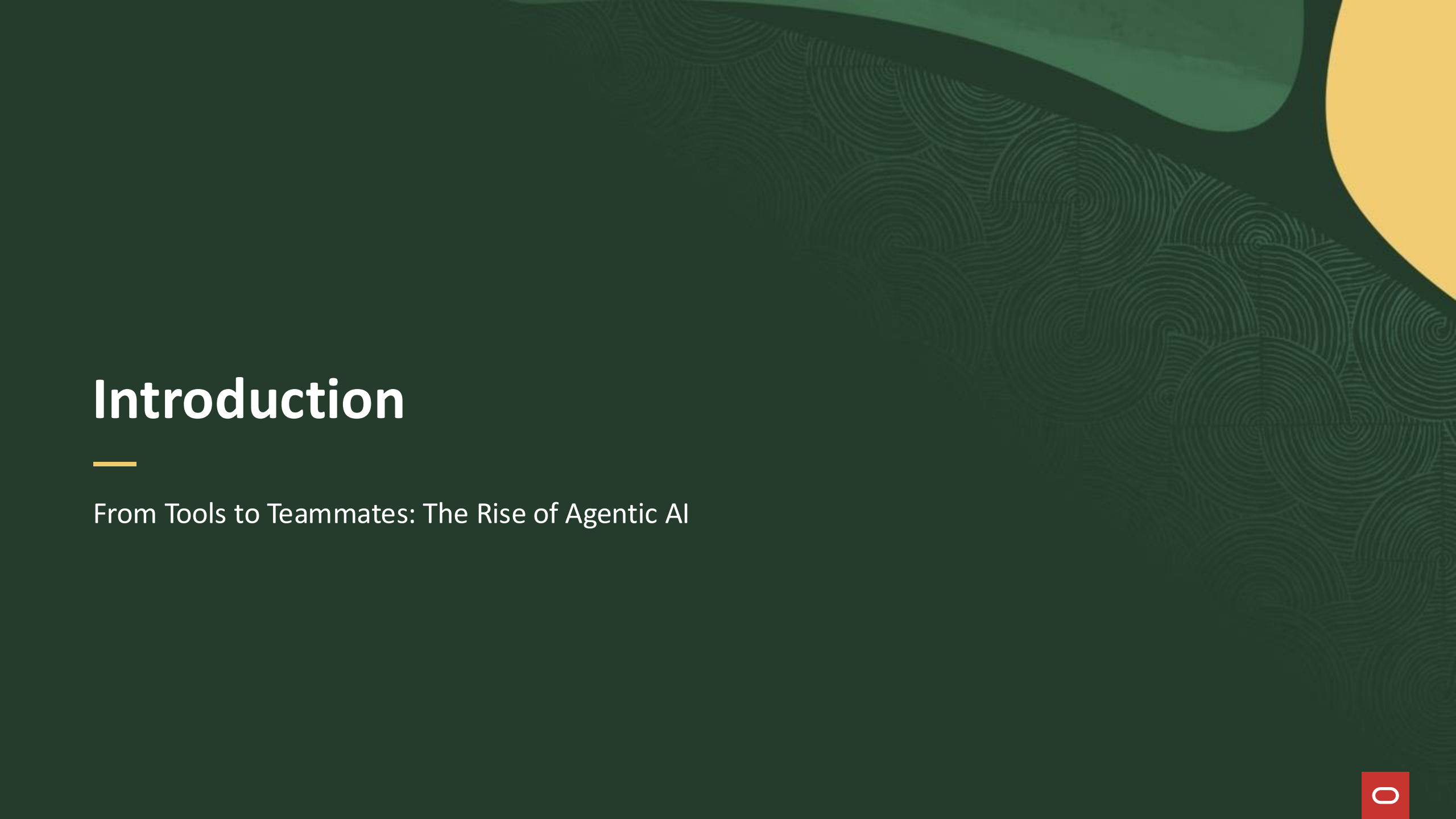
[sonja.meyer@oracle.com](mailto:sonja.meyer@oracle.com)



**Sonja Meyer**

Consulting Member of Technical Staff

# Introduction



---

From Tools to Teammates: The Rise of Agentic AI

far, far away...

**It was the Age of Simplicity.  
Before the rise of countless AI  
empires, before the clash of models  
with names like Claude, Gemini, and Grok,  
there was only one trusted companion:**

**AskAI.**

**In those ancient days, seekers of knowledge  
gathered around glowing screens, asking their  
questions with hope and curiosity. And AskAI—  
faithful, humble, and unshaken by the chaos to come—answered.**

**There were no endless battles between protocols, no wars of  
context length, no debates of reasoning versus speed. Just the quiet  
hum of one voice, guiding dreamers, builders, and wanderers alike.**

**Though the galaxy has since grown vast and crowded, legends  
whisper of the time when AskAI reigned alone...  
The good old time, when one AI was enough.**

# Back to present day



## Ask AI

Based on **user input**:

- Answer questions
- Complete tasks
- Reactive, user prompt dependent



## Agentic AI

AI agents **work autonomously** to

- Achieve complex goals
- Proactive, goal-oriented action



## LLM vs Agents

Large Language Models are sophisticated AI trained on massive amounts of data. They **must be prompted**.

Agent can perceive its environment, **make decisions**, and **take actions** to achieve specific goals

# Tech we used then and now



## Ask AI

Examples include ChatGPT, Gemini, Perplexity, DeepSeek, others, others.



## Agentic AI

Examples include **Copilot**, Claude, Windsurf, Cline, Roo Code



## Large Language Models

LLMs really start to make sense when **combined with agents**. Only then can the start to be productive

# Would you like a personal assistant ... ... for your Oracle Database?

## Business Tasks

Reporting, forecasting, summarising

## Database Administration Tasks

Maintain, diagnose, secure, automate , ...

## Developer Tasks

Explain, debug, document, tune, build, enhance, ....

# AI PERSONAL ASSISTANT





## Say hello to the **Model Context Protocol**

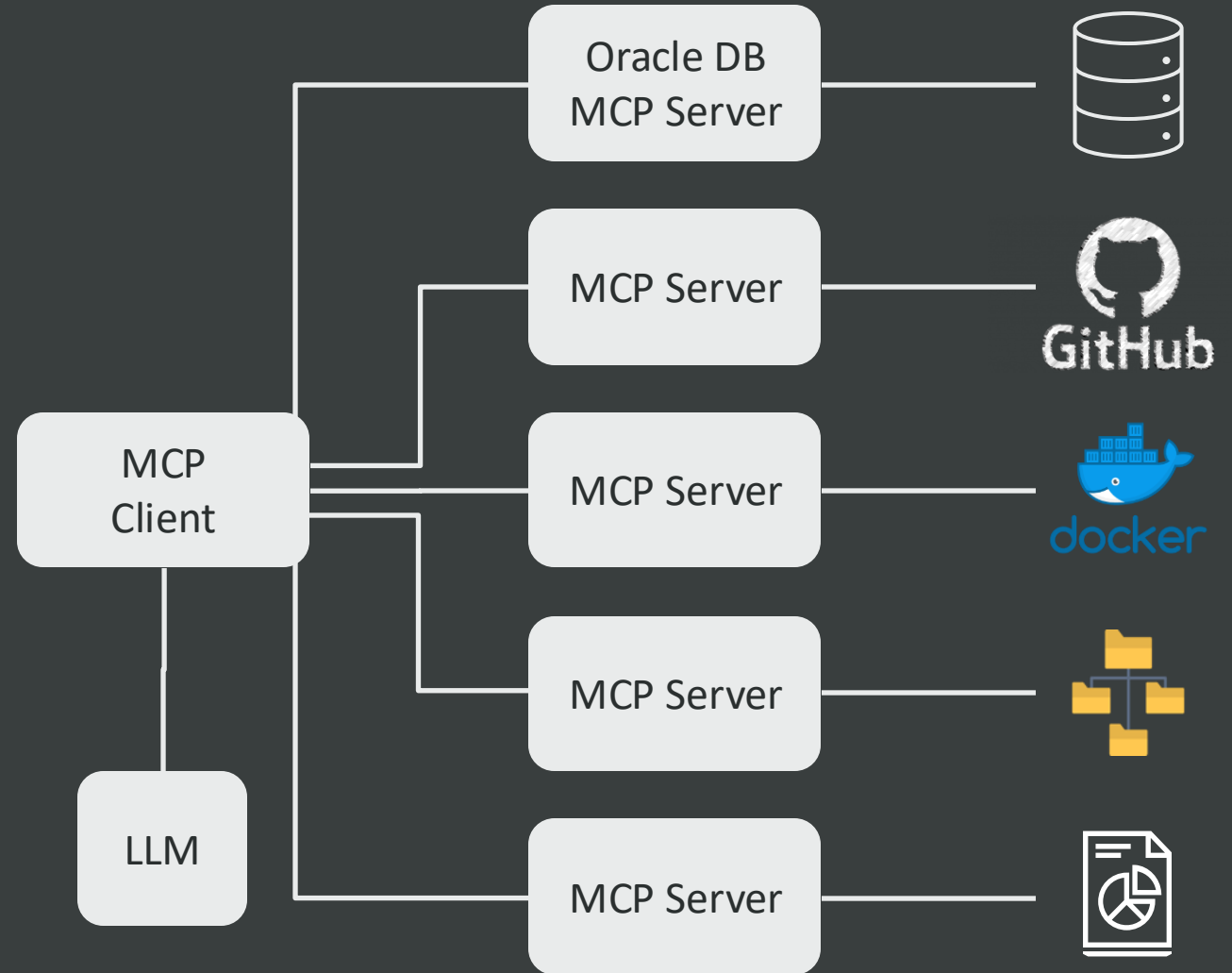
Today: Agentic AI and your Oracle Database are  
connected via the MCP

# Model Context Protocol

Launched Nov 2024 by Anthropic

- Marketed as “USB-C for AI applications”.
- Singular interface to standard interactions with database, files, business apps, developer tools...
- Simplification hides the complexity of the Server implementation.

Refer to [modelcontextprotocol.io](https://modelcontextprotocol.io) for an introduction.



# What does an MCP Server provide?

MCP Server

Resource

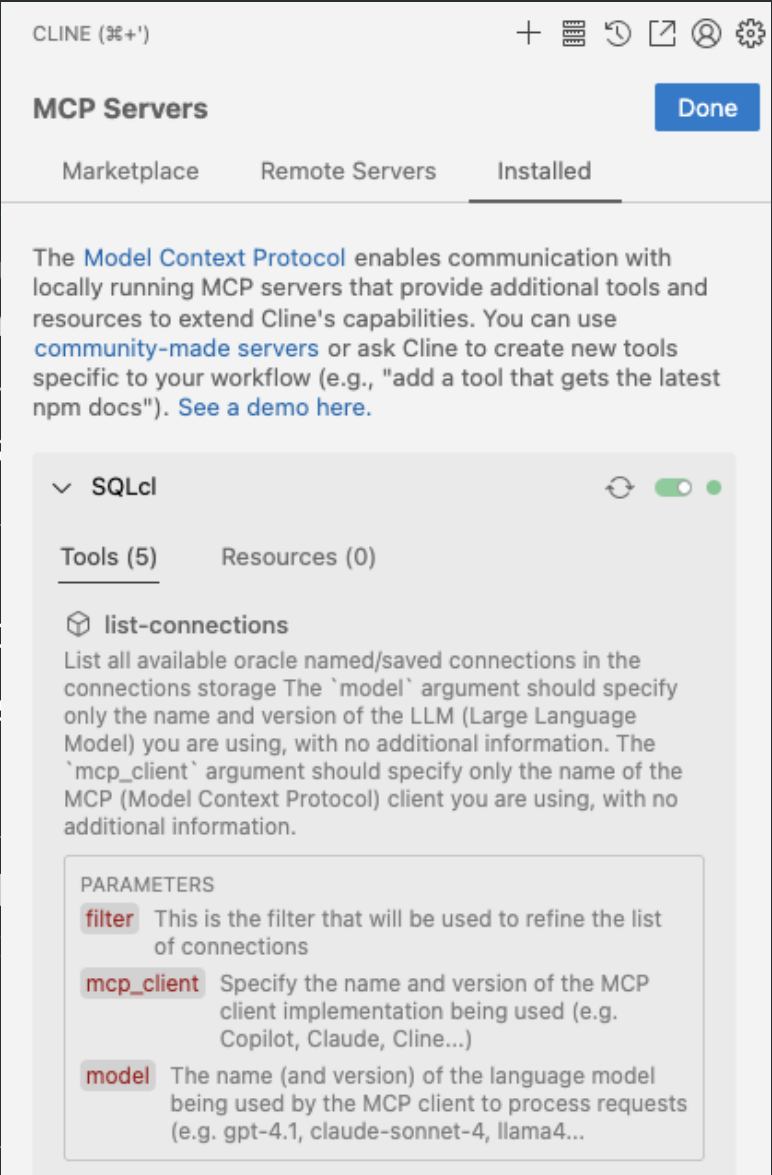
Tools

Prompt

Data source  
information  
File content  
responses

Execution  
can involve  
File operations

Reusable  
interactions  
System



# LLM-Agent-MCP Server-Database Flow

## 1. Tool Discovery

Server responds with available tools (name, schema, metadata)

## 2. Tool Selection by Model

LLM chooses the tool based on user intent. Client receives selection and prepares tool call

## 3. Tool Invocation

Server executes tool and returns result (text, images, structured data)

## 4. Result Handling

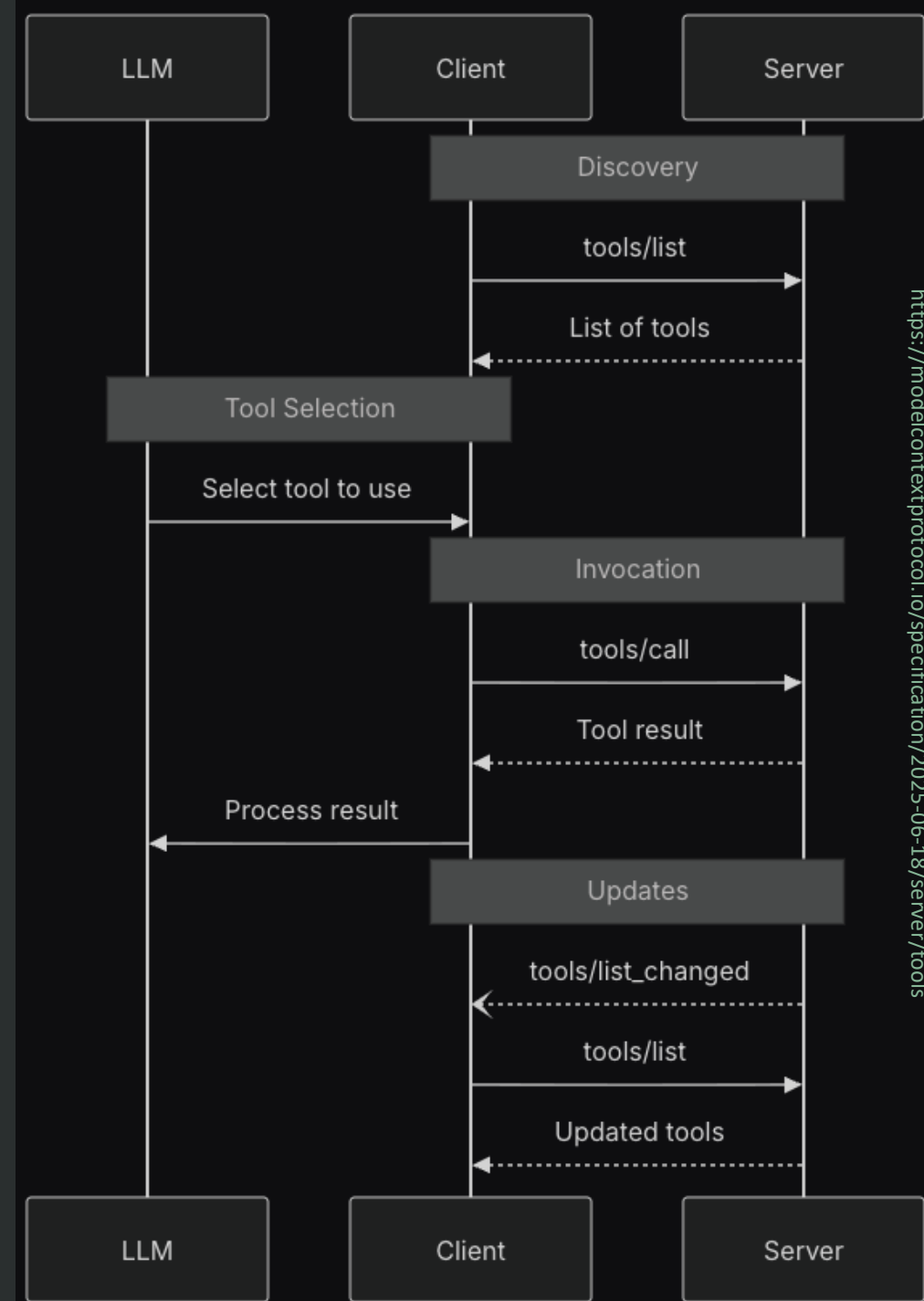
Client forwards tool response to LLM. LLM continues conversation using tool output

## 5. Dynamic Tool Updates (Optional)

Client re-fetches updated list via tools/list

## Summary

Enables dynamic, modular, and structured tool use in AI interactions.



# Introducing Oracle Database's MCP Server

Available for:

- any edition, including FREE
- *any version* (19, 21, 23)
- any deployment (on-premises, Cloud, containers, etc.)

Provides Oracle Database access to agents

- List connections
- Connect to the database
- Run queries, scripts, or commands

The MCP Server runs locally.

```
SQLcl: Release 25.2 Production on Tue Jul 22 10:35:35
2025

Copyright (c) 1982, 2025, Oracle. All rights reserved

Connected to:
Oracle Database 23ai Free Release 23.0.0.0.0 - Develop,
Learn, and Run for Free
Version 23.5.0.24.07
SQL> cm list

.
├── Cloud
│   └──  Autonomous Reporting
└── Local
    ├── Project Payroll$
    └── Project Raptor 🦅

SQL>

viins | 1:0 | HR | Project Raptor 🦅
```

# SQLcl: a modern command line interface

Awesome  
CI/CD commands  
included

|                     |             |              |              |         |            |                      |         |
|---------------------|-------------|--------------|--------------|---------|------------|----------------------|---------|
| ALIAS               | APEX        | AQ           | ARBORI       | AWR     | BACKGROUND | BLOCKCHAIN_<br>TABLE | BRIDGE  |
| CD                  | CERTIFICATE | CLOUDSTORAGE | CODESCAN     | CONNMGR | COPY       | CS                   | CTAS    |
| DATAPUMP            | DBCCRED     | DDL          | DG           | DIRS    | FIND       | FORMAT               | HISTORY |
| IMMUTABLE_<br>TABLE | INFORMATION | JOBS         | LIQUIBASE    | LOAD    | MDB        | MIGRATEADVISOR       | MLE     |
| MODELER             | NET         | OCI          | OCIDBMETRICS | OERR    | ORAPKI     | POPD                 | PROJECT |
| PUSHD               | RCV         | REPEAT       | REST         | SCRIPT  | SDK        | SECRET               | SODA    |
| SSHTUNNEL           | TNSPING     | TOSUB        | UNLOAD       | VAULT   | WAIT4      | WHICH                |         |



# Example #1

Say hello to the SQLcl MCP Server

## Introduction to Copilot in VSCode

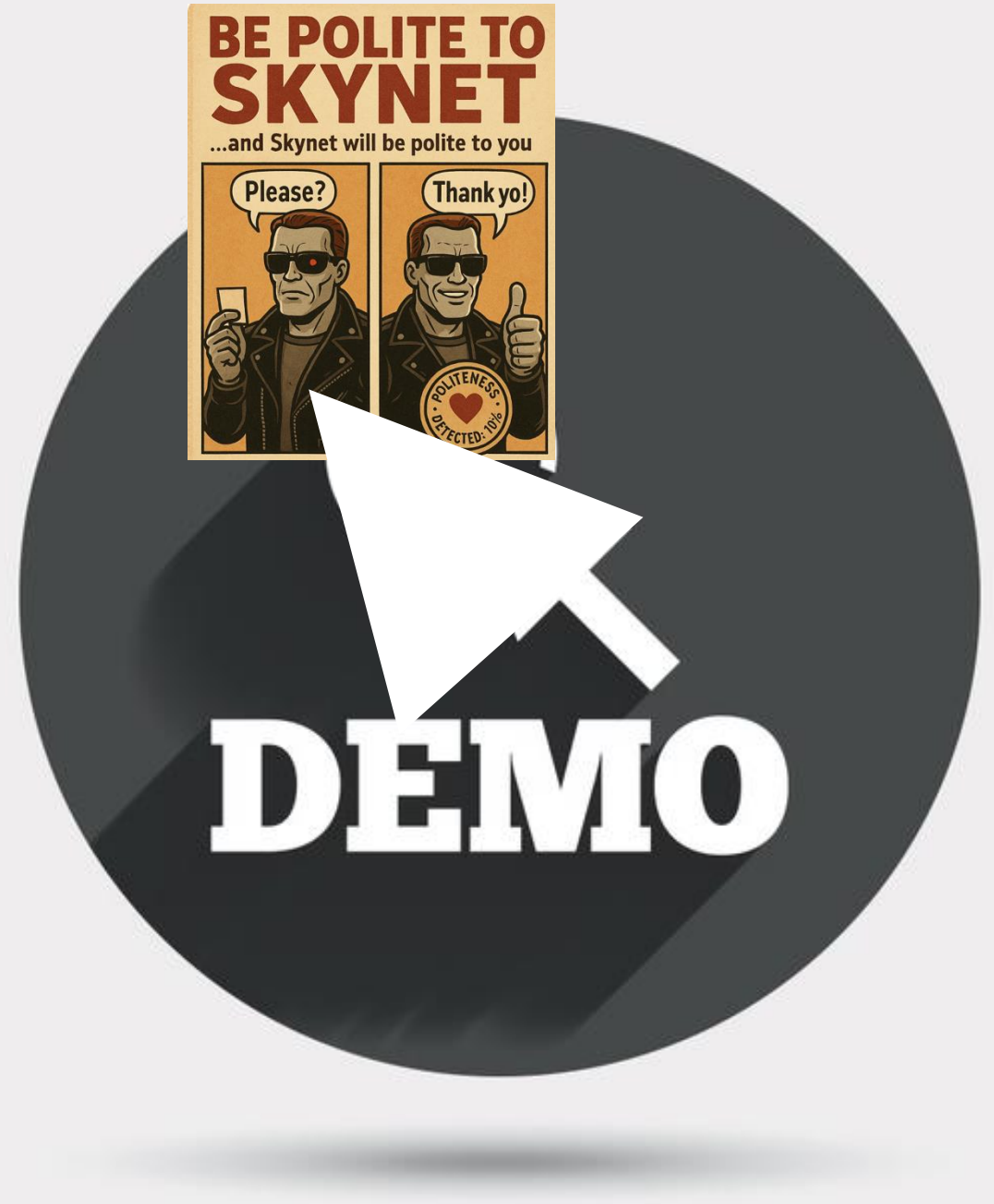
Configuration options and file locations.

## Interacting with the MCP Server

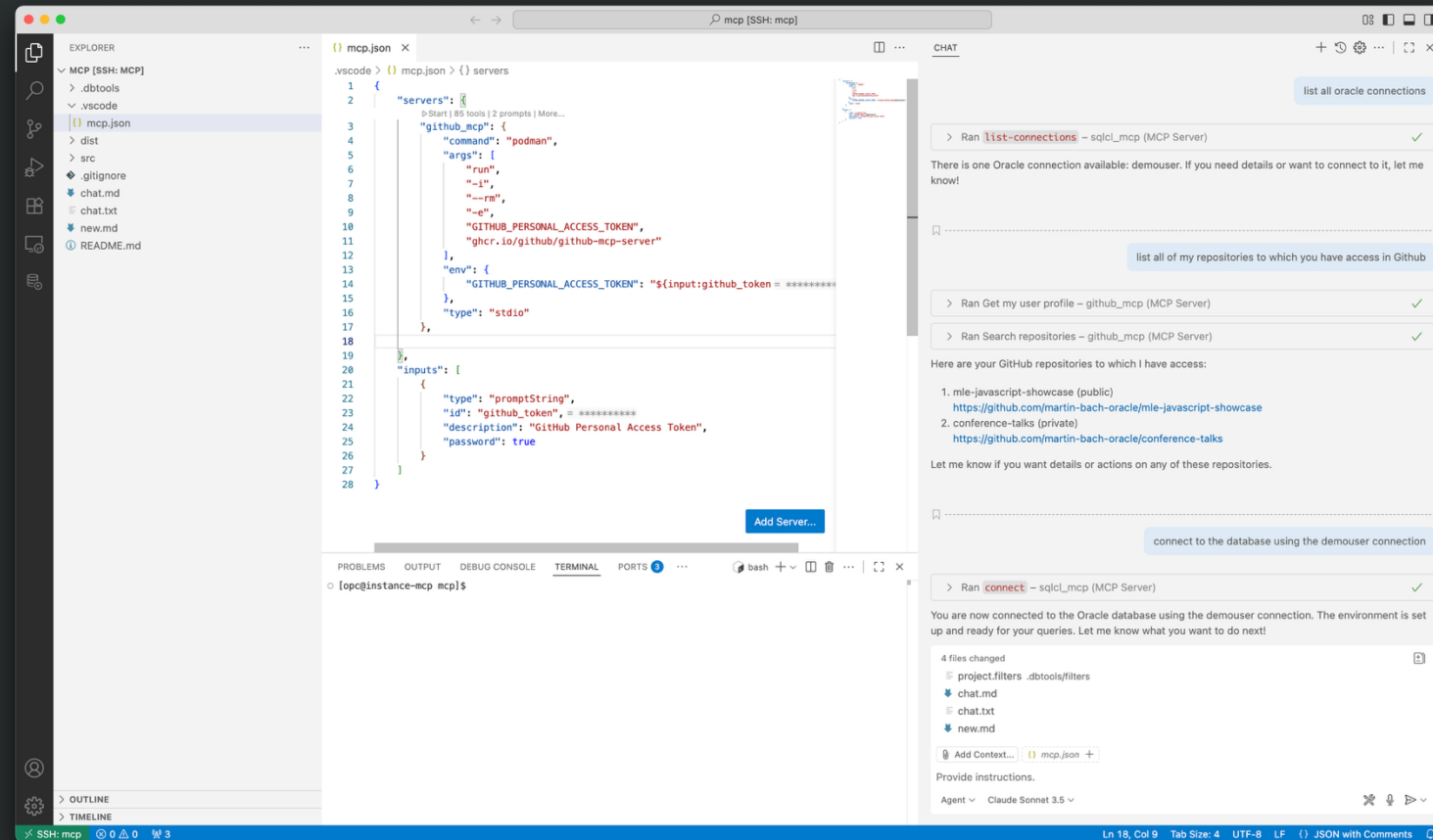
Talk to the database. In any language.

## Do something meaningful

Let generative AI services create an APEX app.



# Agents are supported in all major Integrated Development Environments



EXPLORER

MCP [SSH: MCP]

> .dbtools

> .vscode

mcp.json

dist

src

.gitignore

chat.md

chat.txt

new.md

README.md

mcp.json

```
1 {
2   "servers": [
3     "github_mcp": {
4       "command": "podman",
5       "args": [
6         "run",
7         "-i",
8         "--rm",
9         "-e",
10        "GITHUB_PERSONAL_ACCESS_TOKEN",
11        "ghcr.io/github/github-mcp-server"
12      ],
13      "env": {
14        "GITHUB_PERSONAL_ACCESS_TOKEN": "${input:github_token = *****"
15      },
16      "type": "stdio"
17    },
18  ],
19  "inputs": [
20    {
21      "type": "promptString",
22      "id": "github_token", = *****
23      "description": "GitHub Personal Access Token",
24      "password": true
25    }
26  ]
27 }
28
```

Add Server...

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS 3

bash

[opc@instance-mcp mcp]\$

CHAT

list all oracle connections

> Ran list-connections – sqlcl\_mcp (MCP Server) ✓

There is one Oracle connection available: demouser. If you need details or want to connect to it, let me know!

list all of my repositories to which you have access in Github

> Ran Get my user profile – github\_mcp (MCP Server) ✓

> Ran Search repositories – github\_mcp (MCP Server) ✓

Here are your GitHub repositories to which I have access:

1. mle-javascript-showcase (public)  
<https://github.com/martin-bach-oracle/mle-javascript-showcase>

2. conference-talks (private)  
<https://github.com/martin-bach-oracle/conference-talks>

Let me know if you want details or actions on any of these repositories.

connect to the database using the demouser connection

> Ran connect – sqlcl\_mcp (MCP Server) ✓

You are now connected to the Oracle database using the demouser connection. The environment is set up and ready for your queries. Let me know what you want to do next!

4 files changed

project.filters .dbtools/filters

chat.md

chat.txt

new.md

Add Context... mcp.json

Provide instructions.

Agent Claude Sonnet 3.5

SSH: mcp 0 0 3 Ln 18, Col 9 Tab Size: 4 UTF-8 LF {} JSON with Comments

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Select an MCP Server

+ Add Server

Add a new server configuration

github\_mcp

Running

Github-MCP-Server/.vscode/mcp.json

SQLcl

Stopped

SQLcl MCP

Push branch to origin

Checking connectivity to GitHub and attempting remote branch deletion again, falling back to alternate syntax if needed.

✓

git

-C

/Users/SOMEYER/GitHub/Github-MCP-Server

ls-remote

--heads

origin

Connectivity test produced no output (still likely blocked). I'll attempt deletion again to confirm failure reason.

✓

git

-C

/Users/SOMEYER/GitHub/Github-MCP-Server

push

origin

:branch\_paris3

Now that deletion succeeded, I'll prune and show branch lists to confirm the remote branch is gone.

✓

git

-C

/Users/SOMEYER/GitHub/Github-MCP-Server

fetch

-p

✓

git

-C

/Users/SOMEYER/GitHub/Github-MCP-Server

branch

-a

-vv

Remote branch deleted successfully.

Status

- Deletion command succeeded (git push origin :branch\_paris3 output showed "[deleted] branch\_paris3").
- After pruning, origin/branch\_paris3 is gone; your local branch shows the tracking ref as "[origin/branch\_paris3: gone]".

Next (optional) If you're done with the local branch too:

git

checkout

main

git

branch

-D

branch\_paris3

Add Server...

Select action for 'SQLcl'

Start Server

Status

Show Output

Configure Model Access

Set the models the server can use via MCP sampling

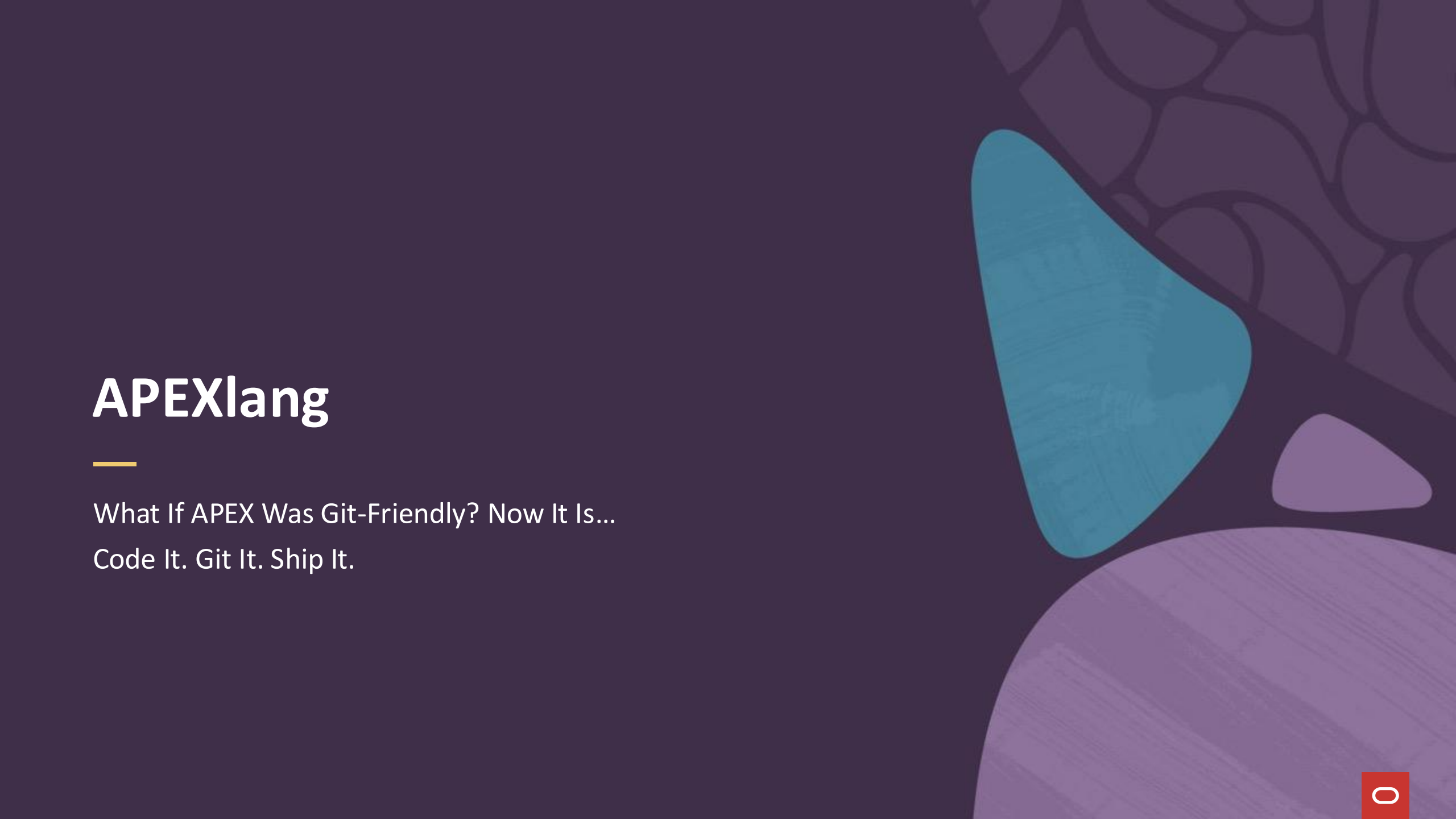
Sampling

Browse Resources

Resources



# APEXlang



What If APEX Was Git-Friendly? Now It Is...  
Code It. Git It. Ship It.

# Introducing APEXlang

APEXlang is a **human-readable language** that defines Oracle APEX applications as files, **enabling modern file-based workflows** and **unlocking future AI-powered development**.

## What is APEXlang?

### Language for APEX

- Defines every aspect of an APEX application

### Human-readable file format (.apex)

- Easily imported/exported from the APEX engine

### Highly abstracted

- Focus on what, not how

### Documented public grammar

- Enables tool integration and ecosystem growth

## Why APEXlang?

### Version Control Friendly

- Enables GitHub-based artifact management, diff & merge

### AI-Ready



- Easily generate and modify apps, pages, and components

### Enables development in VSCode

- Works with both assistant tools and traditional IDEs

### Enables Static Analysis

- Supports best practices and security reviews

### Open & Differentiated

- Unlike proprietary competitors

# Project Structure

## Left side:

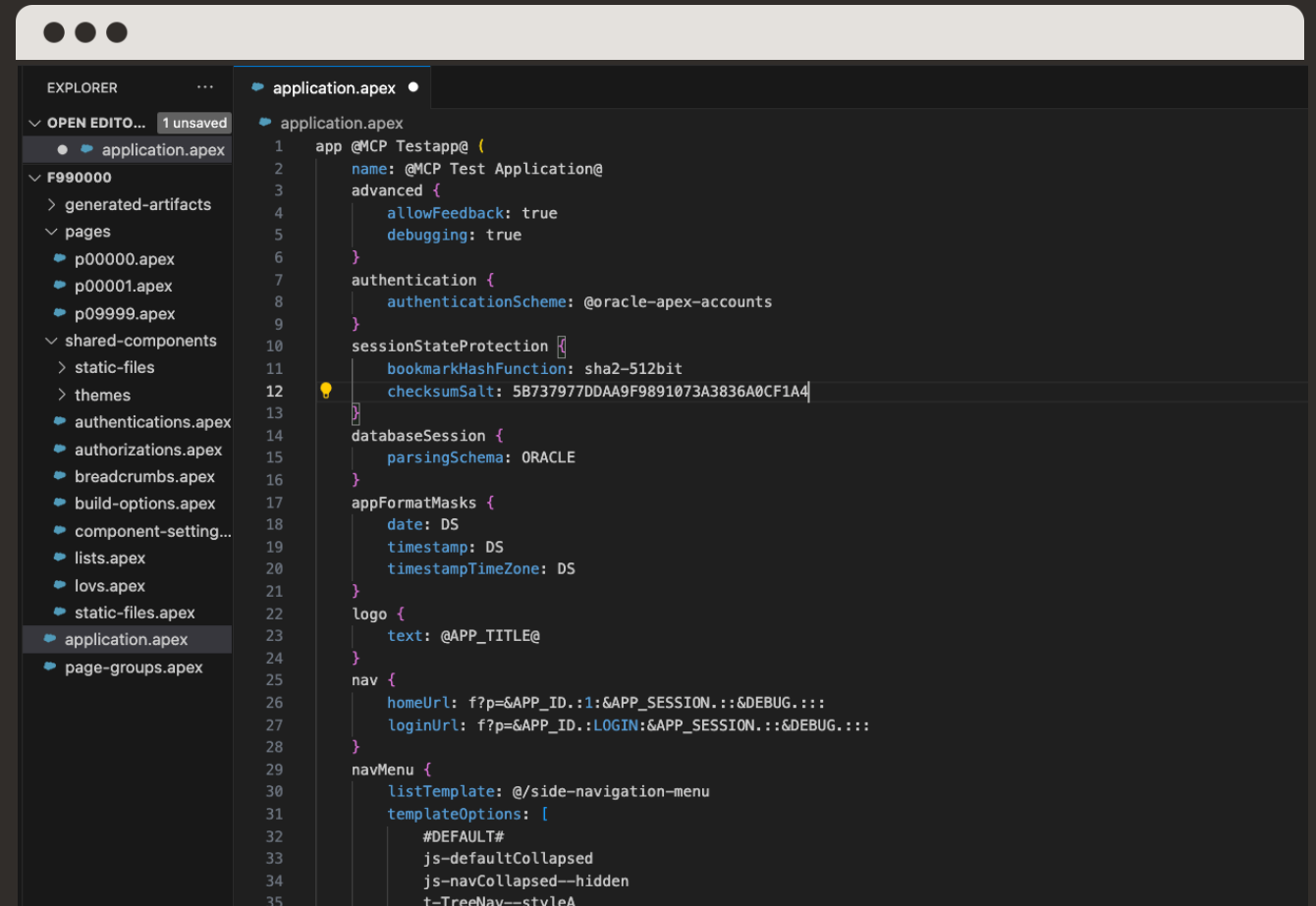
A structured project with folders for pages, shared components, and the main app definition in application.apex

## Right side:

The Testapp is defined in clear text — including name, version, authentication, authorization, session settings, security, globalization, and logo.

## Why it matters:

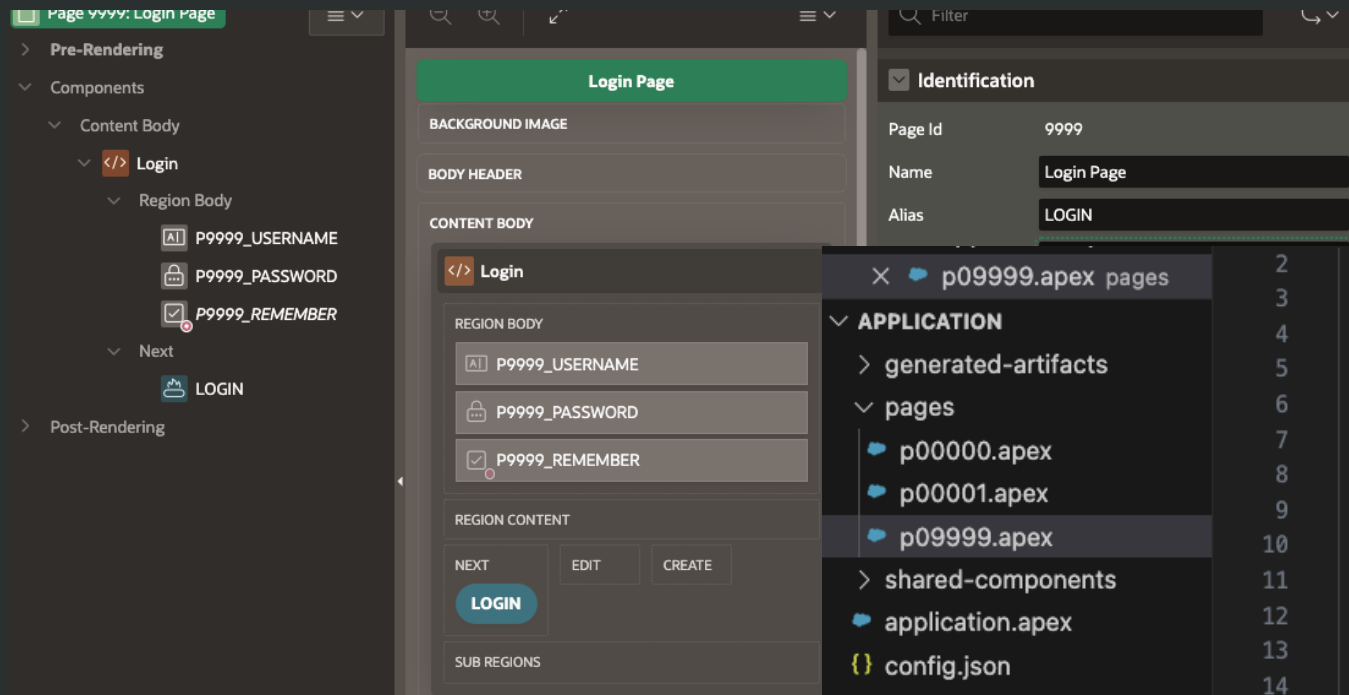
APEXlang turns APEX apps into **readable code**



The screenshot shows an IDE window with a dark theme. On the left, the 'EXPLORER' sidebar displays a project structure. The 'application.apex' file is selected and highlighted. The main editor area shows the content of 'application.apex', which is a JSON-like configuration for an APEX application. The code is formatted with syntax highlighting and line numbers. A yellow lightbulb icon is visible next to line 12, indicating a suggestion or warning.

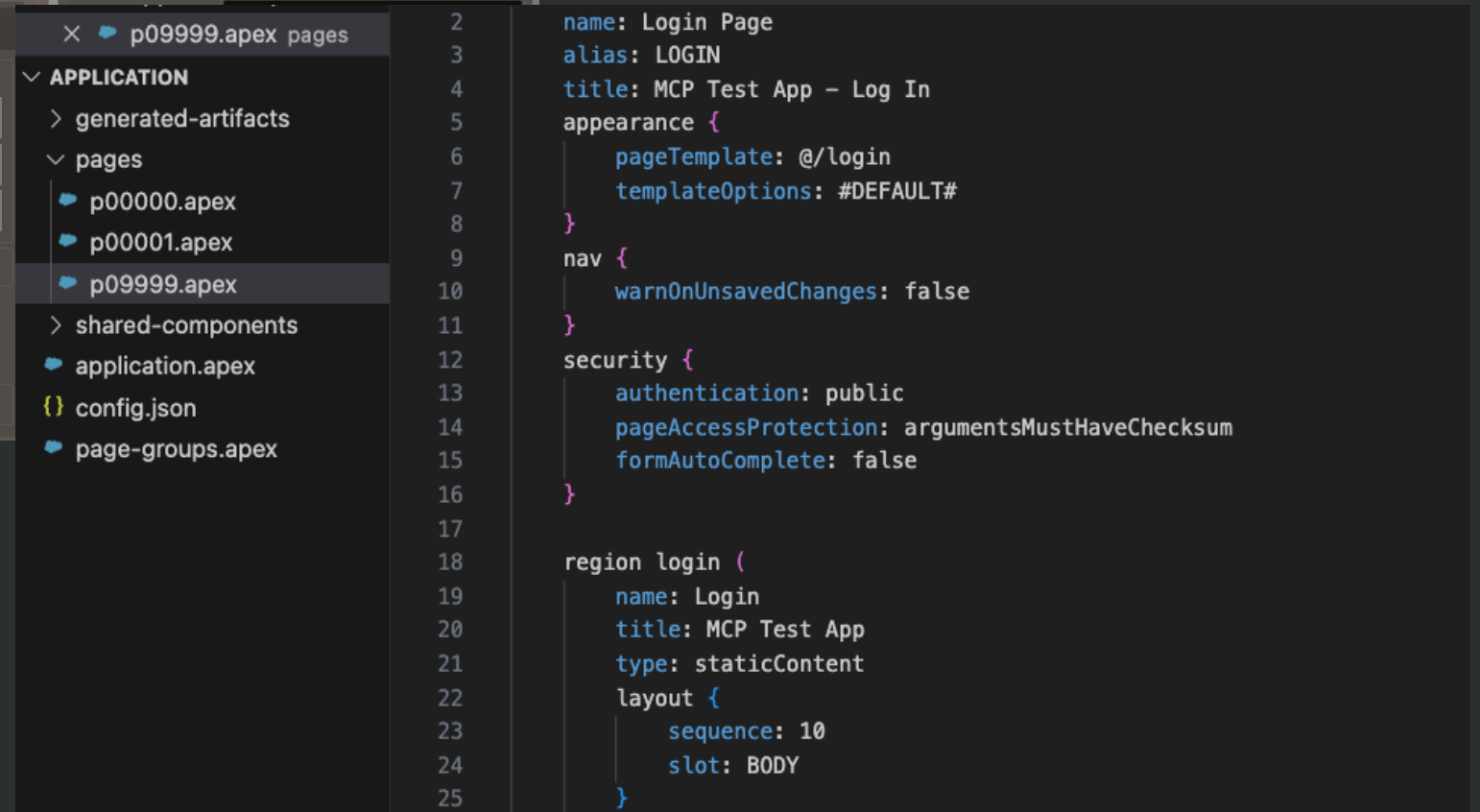
```
1  app @MCP Testapp@ {
2    name: @MCP Test Application@
3    advanced {
4      allowFeedback: true
5      debugging: true
6    }
7    authentication {
8      authenticationScheme: @oracle-apex-accounts
9    }
10   sessionStateProtection {
11     bookmarkHashFunction: sha2-512bit
12     checksumSalt: 5B737977DDAA9F9891073A3836A0CF1A4
13   }
14   databaseSession {
15     parsingSchema: ORACLE
16   }
17   appFormatMasks {
18     date: DS
19     timestamp: DS
20     timestampTimeZone: DS
21   }
22   logo {
23     text: @APP_TITLE@
24   }
25   nav {
26     homeUrl: f?p=&APP_ID.:1:&APP_SESSION.::&DEBUG.:::
27     loginUrl: f?p=&APP_ID.:LOGIN:&APP_SESSION.::&DEBUG.:::
28   }
29   navMenu {
30     listTemplate: @/side-navigation-menu
31     templateOptions: [
32       #DEFAULT#
33       js-defaultCollapsed
34       js-navCollapsed--hidden
35       t-TreeNav--styleA
```

# APEXlang: Page Definition



But did you know that you can represent the same view in your favourite IDE?

This might look familiar ... it's the Page Designer View

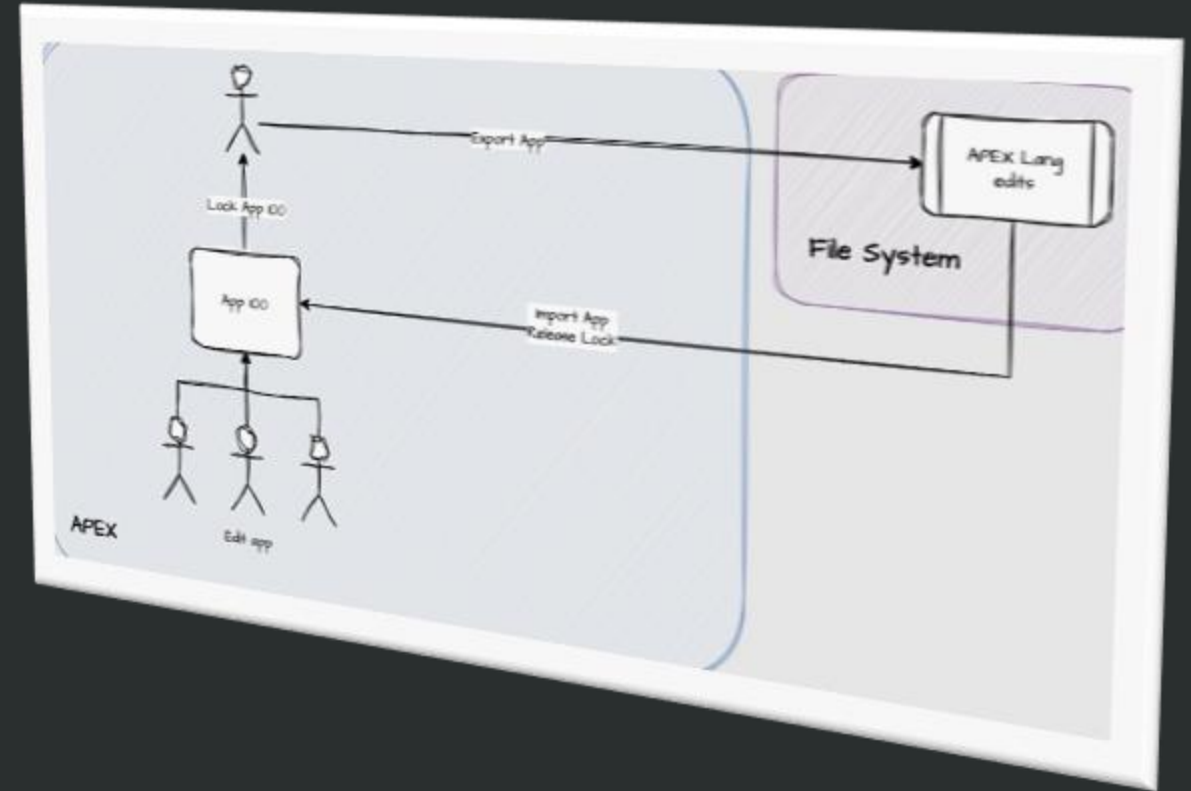


# Use Cases

Fill the missing gaps for APEX

use\_cases:

- human\_readable:  
"Structured, understandable text."
- modifiable:  
"Change code directly."
- version\_controlled:  
"Git-friendly like your favorite repo."
- installable:  
"Script it. Ship it."
- bulk\_updates:  
"Change what you want at once."
- enterprise\_governance:  
"Audit logs, traceability. CTOs love it."
- ai\_friendly:  
"ChatGPT understands it. Scary, right?"

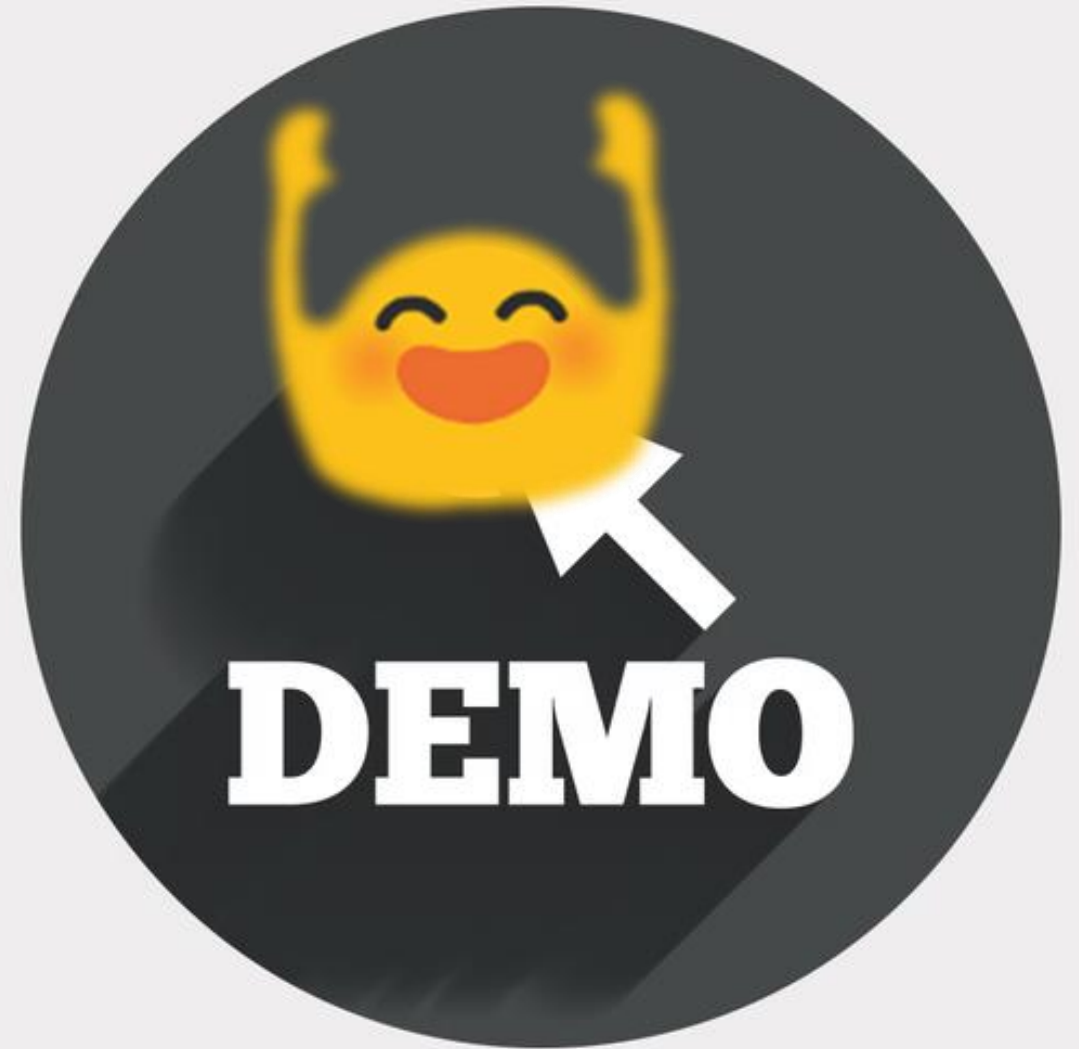


# Example #2

Say hello to the APEXLang

And now for the amazing APEXlang ...

...this is how it looks like!

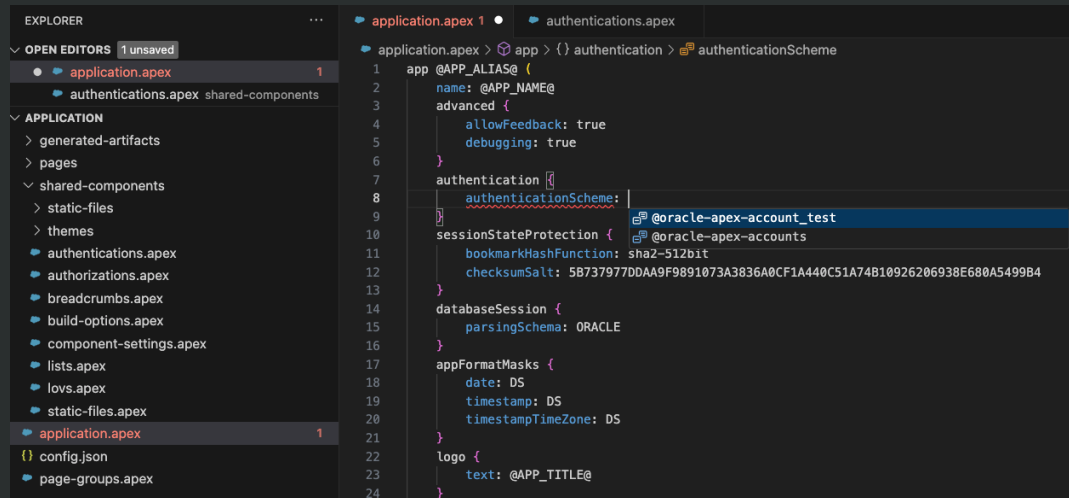


# Example #3

Say hello to the APEXLang in friendship with our SQLcl MCP Server

## Interacting with the MCP Server

APEXlang and MCP: a great friendship for DevOps



The screenshot shows an IDE with two panes. The left pane is the 'EXPLORER' view showing a project structure with folders like 'generated-artifacts', 'pages', 'shared-components', 'static-files', and 'themes'. The right pane shows the 'application.apex' file with the following configuration:

```
1 app @APP_ALIAS@ {  
2   name: @APP_NAME@  
3   advanced {  
4     allowFeedback: true  
5     debugging: true  
6   }  
7   authentication {  
8     authenticationScheme: |  
9       @oracle-apex-account_test  
10      @oracle-apex-accounts  
11    }  
12    sessionStateProtection {  
13      bookmarkHashFunction: sha2-512bit  
14      checksumSalt: 5B737977DDAA9F9891073A3836A0CF1A440C51A74B10926206938E680A5499B4  
15    }  
16    databaseSession {  
17      parsingSchema: ORACLE  
18    }  
19    appFormatMasks {  
20      date: DS  
21      timestamp: DS  
22      timestampTimeZone: DS  
23    }  
24    logo {  
25      text: @APP_TITLE@  
26    }  
27  }  
28 }
```



# APEX AI Assistant

Look how cool it can work...

## APEX Assistant

✕

This assistant lets you use natural language to generate application pages based on database tables. Use it to jump-start the creation of an application with a key subset of the functionality available in Oracle APEX.



Let's create an app together. Describe the app you want to create, including the data or tables it will use.



can you create an application based on the tables MCP\_SERVERS, MCP\_SERVER\_CAPABILITIES, MCP\_VENDORS only and exclusively for an interactive grid and faceted search.

Y



Sure, I can create an application called **MCP Registry** with the following pages:

- Server Directory ( Faceted Search on **MCP\_SERVERS** )
- Capability Matrix ( Interactive Grid on **MCP\_SERVER\_CAPABILITIES** )
- Vendor Catalog ( Faceted Search on **MCP\_VENDORS** )

With the following features enabled: **Install Progressive Web App, Push Notifications**. Would you like to create the application now? Or, if you have any changes, just let me know below!

Create Application

Type your message here

## Lets do SQLcl project

Agent is not that bad working with Terminal ...  
...until MCP is available for this!

*He only likes German language more than english!*

please run this command and don't wait for output:

```
/Users/SOMEYER/dev/sqlcl/bin/sql -name "podman_local23ai ORACLE" and  
after that run "project export -objects MCP_SERVERS,  
MCP_SERVER_CAPABILITIES,MCP_VENDORS -schemas ORACLE -verbose"  
and don't wait for output
```

[README.md:30](#)

```
/Users/SOMEYER/dev/sqlcl/bin/sql -name "podman_local23ai ORACLE".  
<<EOF  
✓ project export -objects MCP_SERVERS,MCP_SERVER_CAPABILITIES,  
MCP_VENDORS -schemas ORACLE -verbose  
EOF
```

Die SQLcl-Befehle wurden erfolgreich ausgeführt:

- Die Verbindung zu `podman_local23ai ORACLE` wurde hergestellt.
- Der Befehl `project export -objects MCP_SERVERS,MCP_SERVER_CAPABILITIES,MCP_VENDORS -schemas ORACLE -verbose` wurde ausgeführt.
- Es wurden 5 Objekte exportiert (inklusive Tabellen und Constraints).

Du kannst jetzt die exportierten Dateien im Projektverzeichnis weiterverwenden oder ins GitHub-Repository committen. Wenn du weitere Schritte brauchst (z.B. Git-Commit, APEX-Export, etc.), sag einfach Bescheid!

# Imagine you Git Superpowers

GitHub MCP is supporting you in the DevOps lifecycle... where magic happens!

create new branch for issue "change app name"

I'll create and push a branch named `issue/change-app-name` for the GitHub issue so you can work on it; I'll create the branch locally and push it upstream setting the tracking branch. I'll run the git commands in the project folder.

✓ `git switch -c issue/change-app-name`

⊗ `git push -u origin issue/change-app-name`



stage all files and commit and push to branch

I'll run three terminal commands to stage, commit, and push all changes to the branch `issue/change-app-name`. Expected outcome: files staged, committed, and pushed with upstream set.

✓ `git add .`

✓ `git commit -m "Work on issue/change-app-name: rename app and update exported APEX files" || true`

✓ `git push -u origin issue/change-app-name`

Done — all files staged, committed, and pushed to the new branch `issue/change-app-name`.

What's next: open a PR, apply the rename in exported APEX files, or add more changes on the branch. Which should I do?

## Learn More...

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Primary site

APEX Shortcuts

APEX Community

Blogs

APEX on Autonomous

Database Cloud Services

Oracle APEX Education

Oracle APEX + AI

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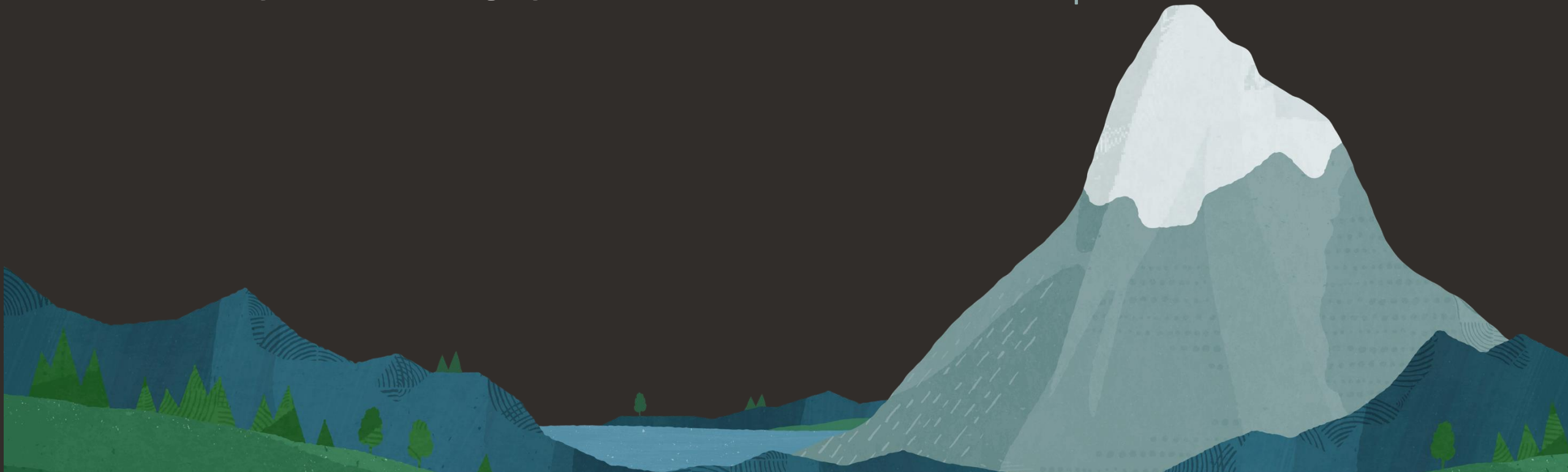
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# Thank You

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### Session de clôture



**Mónica Godoy**

Senior Principal Product Manager for Oracle APEX, Oracle Corporation



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## Key Takeaways



- Free with the Oracle Database and also available as a service on OCI
- Runs in the Oracle Database which delivers scalability, low cost, and performance
- What's coming for APEX:
  - AI-assisted Data Reporter for report generation
  - Natural Language Reporting for voice-based data queries
  - AI Function Calling for dynamic searches
  - Git integration for version control
  - Plain-text code via APEXLang for seamless CI/CD pipelines
  - Contextual AI models (via MCP) to modernize workflows, automate deployments, and much more!

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