Who Am I, and What Am I Doing Here?

Traveler & public speaker

Winters: Illinois

Summers: Wisconsin

Avid amateur bird watcher

ORACLE ACE Director

ORACLE Certified Professional

Oldest dude in martial arts class

Cyclist

XC skier

➢ E-mail me at **jim@jimthewhyguy.com**
➢ Follow me on **Bluesky (@JimTheWhyGuy.bsky.social)**
➢ Connect with me on **LinkedIn (Jim Czuprynski)**

The Oracle ACE Program

400+ technical experts helping peers globally

- The Oracle ACE Program recognizes and rewards community members for their technical and community contributions to the Oracle community

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- Nominate yourself or a colleague at ace.oracle.com/nominate

- Learn more at ace.oracle.com

aceprogram_ww@oracle.com   Facebook.com/OracleACEs   @oracleace   Oracle ACE Program Group

Requirements for Today's Hands-On Lab

You can run this LiveLab in one of **two** ways:

❑ An **internal, limited-availability** Oracle Cloud environment ("**green button**")
- ❑ May not be as responsive as your own tenancy
- ❑ Only gives you a few hours to get through all the lab steps before it expires
- ❑ Once your session expires, you have to sign up *again* and *start from scratch*

❑ **Your own tenancy** ("**brown button**")
- ❑ You *must* have already registered for **your own** OCI Cloud Account and created your tenancy
- ❑ Only two (2) Autonomous DB Always Free (ADBAF) instances permitted per tenancy
- ❑ If you *already* have a 23ai ADBAF, you can install all code in a separate schema (HOL23)

Either way, you'll be able to download and save **all** code samples, data load source files, and the sample APEX application

Signing Into Oracle LiveLabs: Let's Get Started!

1 First, **choose** either the **green** button or **brown** button option …

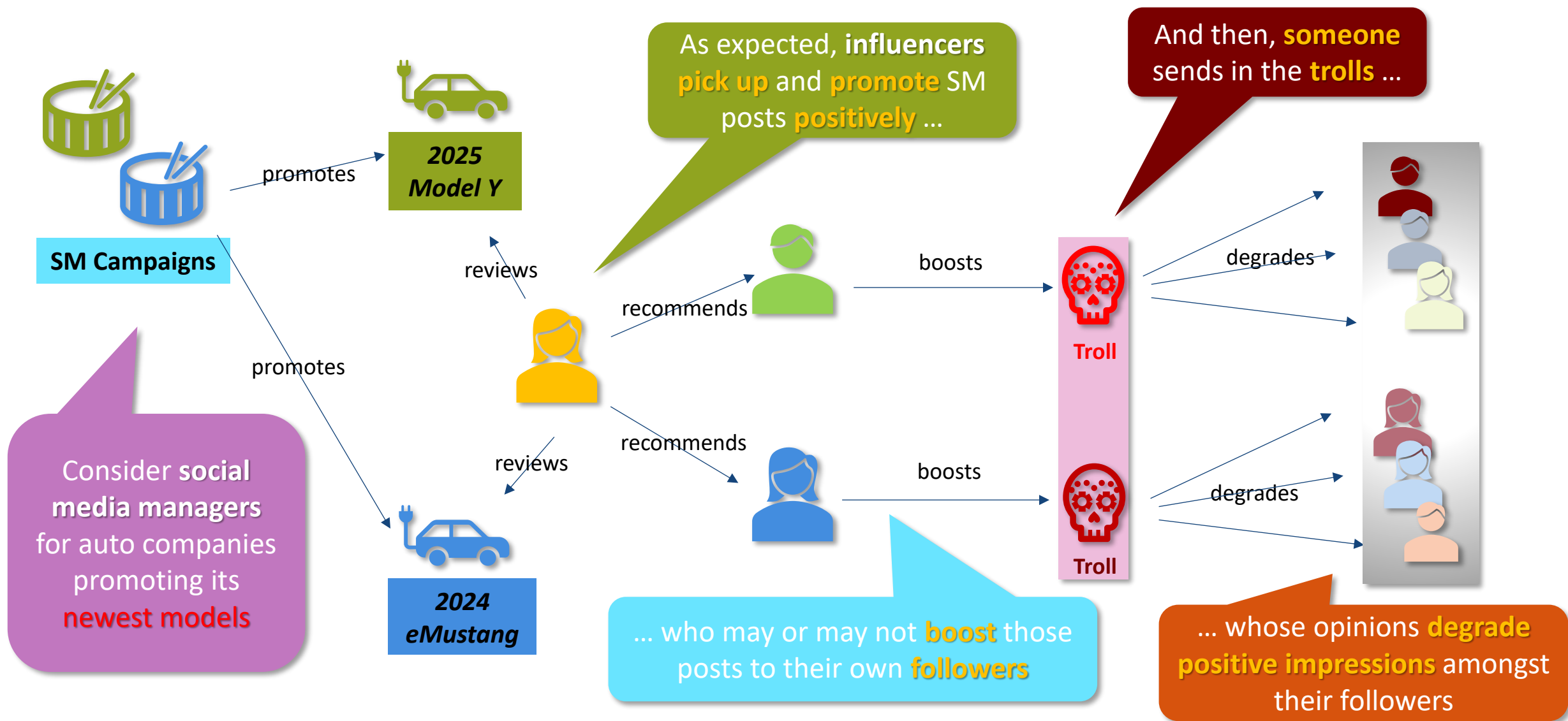**2** … and then log into **Oracle Cloud Infrastructure (OCI)**

Either **use this link** …

… or use this **QR code**

https://bit.ly/APEXWorld_4124

Our Social Media Strategy Worked Great … Until It Didn't Anymore.

Business Case: Timely & Effective Responses to Negative Social Media Posts

Social media campaign just launched on **new EV models**

Initial responses were **positive** ... but then trolls & their followers propagated **negative sentiments** & **deliberate misinformation**

Responding to misinformation with **timely** and **effective messaging** is **imperative** to saving the campaign - and maybe even the **brand itself**
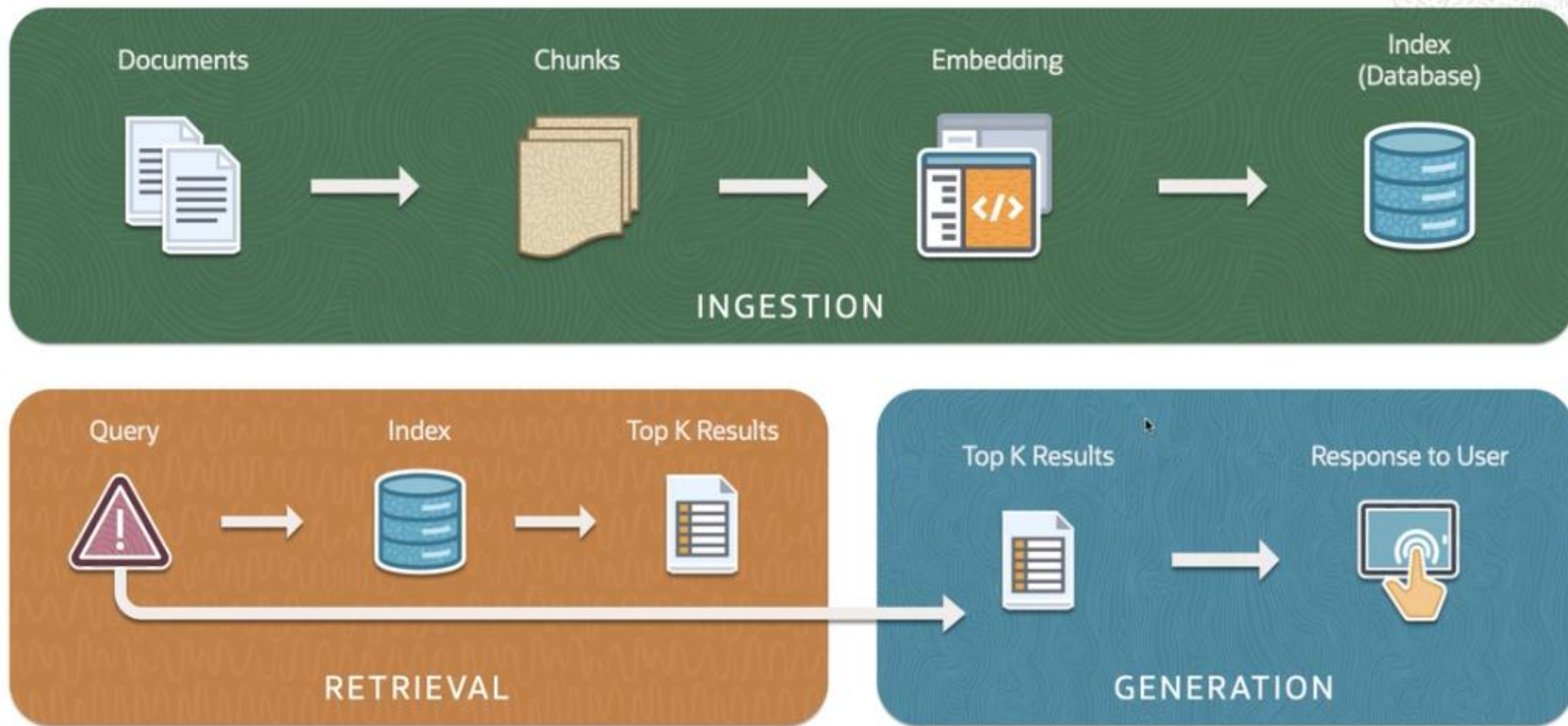
Could we leverage **Generative AI** to respond **immediately and effectively** to **existing** negative posts, as well as any **new** ones that appear?
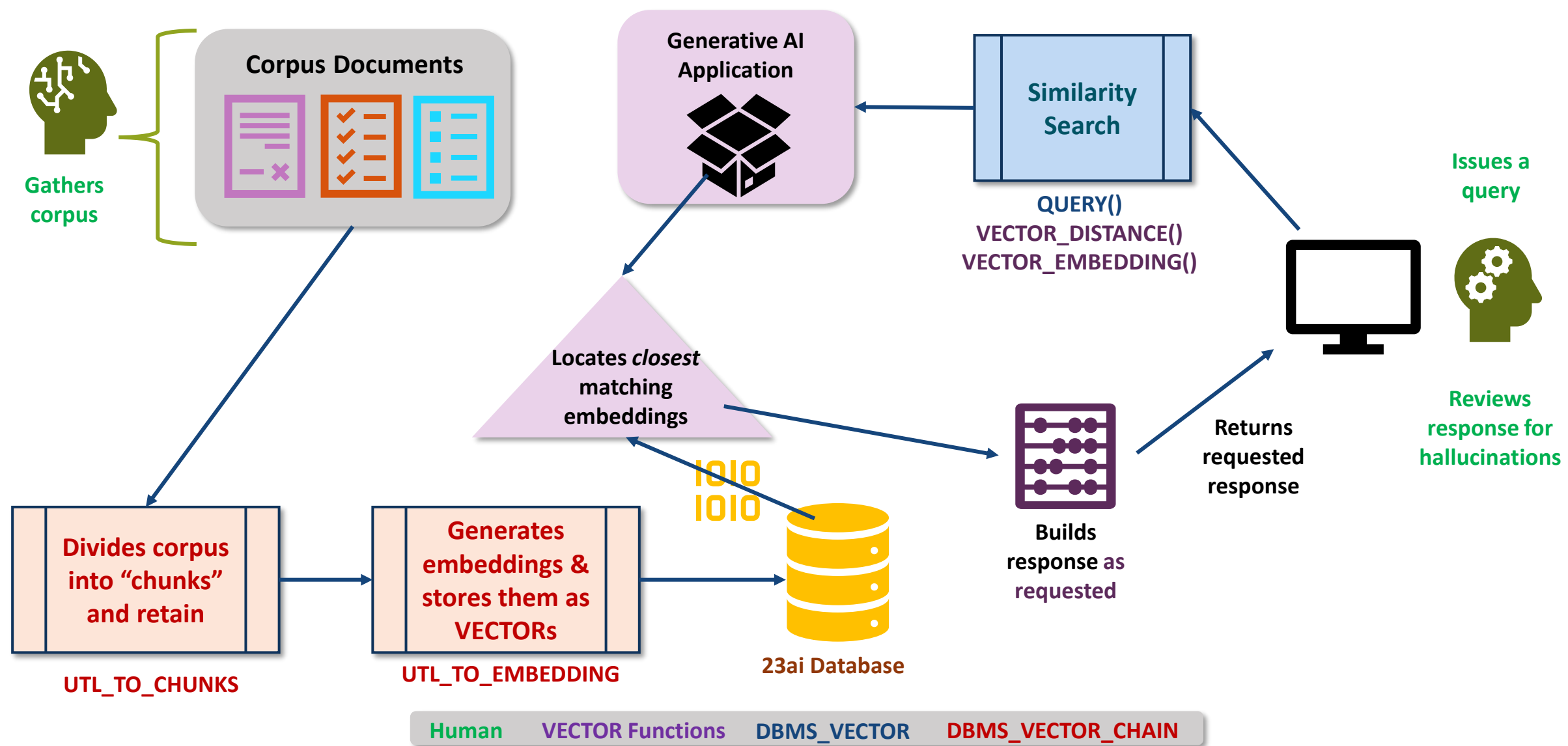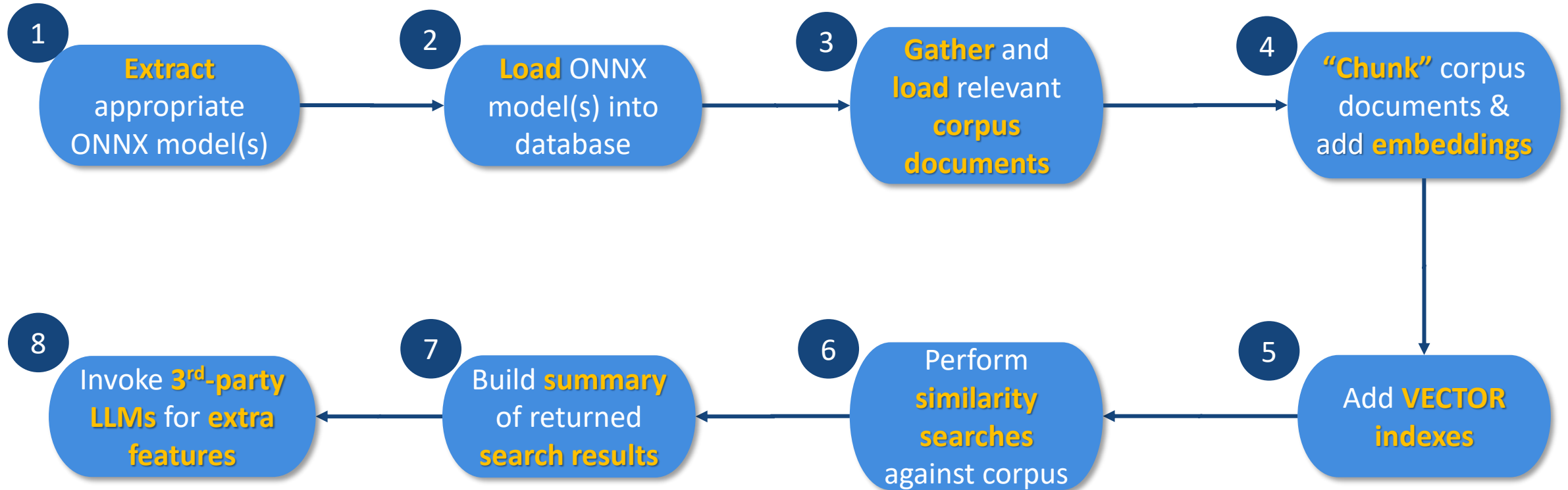
Implementing RAG Within Oracle 23ai Database

Taken directly from the **Oracle Generative AI Certification Course**. Simple, right?

Implementing RAG Within Oracle 23ai Database

Steps for Implementing a 23ai Generative AI Solution

1 — **Extract** appropriate ONNX model(s)

2 — **Load** ONNX model(s) into database

3 — **Gather** and **load** relevant **corpus documents**

4 — **"Chunk"** corpus documents & add **embeddings**

5 — Add **VECTOR** indexes

6 — Perform **similarity searches** against corpus

7 — Build **summary** of returned **search results**

8 — Invoke **3rd-party LLMs** for **extra features**

Useful Resources, Documentation, and Technical Details

Oracle AI Vector Search Technical Architecture

https://docs.oracle.com/en/database/oracle/oracle-database/23/vsiad/aivs_genarch.html

Oracle AI Vector Search User's Guide

https://docs.oracle.com/en/database/oracle/oracle-database/23/vecse/index.html

CREATE VECTOR INDEX Syntax

https://docs.oracle.com/en/database/oracle/oracle-database/23/sqlrf/create-vector-index.html

DBMS_VECTOR Package

https://docs.oracle.com/en/database/oracle/oracle-database/23/arpls/dbms_vector1.html

DBMS_VECTOR_CHAIN Package

https://docs.oracle.com/en/database/oracle/oracle-database/23/arpls/dbms_vector_chain1.html

LiveLabs, Blog Posts, and Articles on RAG, AI, and APEX 24.1

LiveLabs: Build an Innovative Q&A Interface Powered by Generative AI with Oracle APEX

https://apexapps.oracle.com/pls/apex/r/dbpm/livelabs/run-workshop?p210_wid=3947

Generative AI Comes to APEX

https://blog.cloudnueva.com/generative-ai-comes-to-apex

AI Has Become a Technology of Faith

https://www.theatlantic.com/technology/archive/2024/07/thrive-ai-health-huffington-altman-faith/678984/

Generative AI Can't Cite Its Sources

https://www.theatlantic.com/technology/archive/2024/06/chatgpt-citations-rag/678796/

Preliminary Notes on the Delvish Dialect

https://bruces.medium.com/preliminary-notes-on-the-delvish-dialect-by-bruce-sterling-ce68a476247b