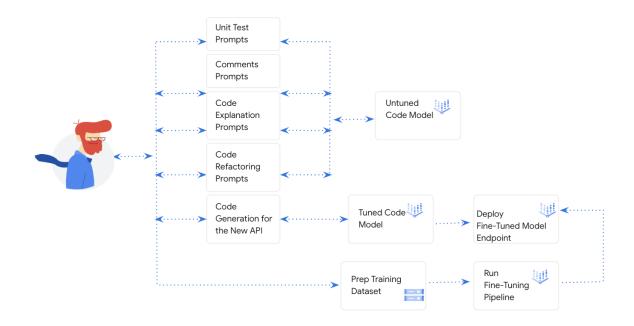
# **Demo Guide**

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# Example - Fine tune the model to use a new API



### **UI Demo**

Step 1: Enable Vertex Al in your GCP project

- 1. Go to the Vertex Al Console: <a href="https://console.cloud.google.com/vertex-ai/">https://console.cloud.google.com/vertex-ai/</a>: <a href="https://console.cloud.google.com/vertex-ai/">https://console.cloud.google.com/vertex-ai/</a>.
- 2. Click the Enable Vertex Al button.
- 3. Follow the on-screen instructions to enable Vertex Al.

Step 2: Navigate to the Language section under Generative Al Studio and click Code Prompt

- 1. In the Vertex Al Console, click the Generative Al Studio tab.
- 2. In the Language section, click the Code Prompt button.

## Step 3: Test untuned model with Vertex Al search tasks

Prompt 1: Generate a function to send search queries to the Vertex Al Search
API and retrieve the search results

#### Step 4: Fine-tune the model in the UI

- 1. In the Vertex Al Console, click the Generative Al Studio tab.
- 2. In the Language section, click the Tuning tab.
- 3. Click the + Create tuned model button.
- 4. Fill out the following information:
  - Model name: Enter a name for your tuned model.
  - Base model: Select the untuned model that you want to fine-tune.
  - Fine-tuning dataset: Select the dataset that you want to use to fine-tune the model.
  - o Fill other required parameters.
- 5. Click the Create button.

# Step 5: Test the tuned model with Vertex AI search tasks

- Prompt 1- Generate a function to send search queries to the Vertex Al Search API and retrieve the search results.
- Prompt 2- Create a function to send search requests to Vertex Al Search API, convert the protobuf search response to a dictionary, and return the dictionary result.

Step 6: Since the untuned model works better for the following tasks, you can switch it back to the default model and test the following tasks. Fill in the code generated from the previous step in the [].

- Generate unit test to cover the block of code []
- Explain the block of code [] line by line Refactor the block of code [] by using descriptive and meaningful names and comments
- Generate line-by-line comments for the block of code []

#### **API Demo**

Step 1: Enable Vertex Al in your GCP project

- 1. Go to the Vertex Al Console: <a href="https://console.cloud.google.com/vertex-ai/">https://console.cloud.google.com/vertex-ai/</a>.
- 2. Click the Enable Vertex Al button.
- 3. Follow the on-screen instructions to enable Vertex Al.

Step 2: Install libraries

Step 3 (optional): you can have the fine tuned model page (GCP console) tab ready and show the fine tuned pipeline when needed

Step 4: Run code

- All the steps are in the notebook
- Refer to the videos for more details