PROFESSIONAL DATA ENGINEER *- Google Cloud Platform*

TITLE: "Introduction to Google Cloud - Cloud Function"

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HTTP Google Cloud Functions in Python

Task 1 - Start Cloud Shell

- We will be using Google Cloud Shell, a command line environment running in the Cloud.
- Activate Cloud Shell: From the Cloud Console, click Activate Cloud Shell.
- This virtual machine is loaded with all the development tools you need. It offers a persistent 5GB home directory and runs in Google Cloud, greatly enhancing network performance and authentication. Much, if not all, of your work in this codelab can be done with simply a browser or your Chromebook.
- Once connected to Cloud Shell, you should see that you are already authenticated and that the project is already set to your project ID.
- Run the following command in Cloud Shell to confirm that you are authenticated:
    - gcloud auth list
- Run the following command in Cloud Shell to confirm that the gcloud command knows about your project:
    - gcloud config list project

Task 2 - Ensure the Cloud Functions and Cloud Build APIs are enabled

- Run the following command from Cloud Shell to make sure the Cloud Functions and Cloud Build APIs are enabled:

    - gcloud services enable
      cloudfunctions.googleapis.com
      cloudbuild.googleapis.com
- Note: Cloud Build will be called by the gcloud functions deploy command and will automatically build your code into a container image.
- Refer main.py
- Let's deploy this function as an HTTP Cloud Function!
- Make sure you cd python-docs-samples-main/codelabs/functions/python_powered/, then you can deploy it using the function name and gcloud functions deploy. This may take a minute or two.
    - gcloud functions deploy hello_http
      --runtime python311
      --trigger-http
      --allow-unauthenticated (or)
    - gcloud functions deploy hello_http --runtime python311 --trigger-http --allow-unauthenticated
- NOTE: The --allow-unauthenticated deploy option enables you to reach the function without authentication.

Task 3 - Test the function

- When the function finishes deploying, take note of the httpsTrigger.url property or find it using the following command:
    - gcloud functions describe hello_http
- Result: https://GCP_REGION-PROJECT_ID.cloudfunctions.net/hello_http (https://GCP_REGION-PROJECT_ID.cloudfunctions.net/hello_http)
- Visit this URL in your browser. You should see a "Hello Cloud & AI Analytics!" message.Try passing a name in the HTTP request, for example by using the following URL:
    - https://GCP_REGION-PROJECT_ID.cloudfunctions.net/hello_http?name=NAME (https://GCP_REGION-PROJECT_ID.cloudfunctions.net/hello_http?name=NAME)

Task 4 - Viewing logs

- To view logs for your function with the gcloud CLI, use the logs read command, followed by the name of the function:

    - gcloud functions logs read hello_http

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