End Lab 01:06:38

Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. Learn more.

Open Google Console

Username
student-04-caa39b6079f(

Password
iIcBdSL3zb3k

GCP Project ID
qwiklabs-gcp-04-13be13(

Structured data prediction using Vertex AI Platform

1 hour 30 minutes Free ★★★★

Overview

In this lab you train, evaluate, and deploy a machine learning model to predict a baby's weight.

What you learn

In this lab, you:

- Launch Vertex AI notebook instance
- Create a BigQuery Dataset and GCS Bucket
- Export from BigQuery to CSVs in GCS
- Training on Cloud AI Platform
- Deploy trained model

Setup

For each lab, you get a new Google Cloud project and set of resources for a fixed time at no cost.

1. Sign in to Qwiklabs using an **incognito window**.
2. Note the lab's access time (for example, 02:00:00), and make sure you can finish within that time. There is no pause feature. You can restart if needed, but you have to start at the beginning.
3. When ready, click **Start lab**.
4. Note your lab credentials (**Username** and **Password**). You will use them to sign in to the Google Cloud Console.
5. Click **Open Google Console**.
6. Click **Use another account** and copy/paste credentials for **this** lab into the prompts. If you use other credentials, you'll receive errors or **incur charges**.

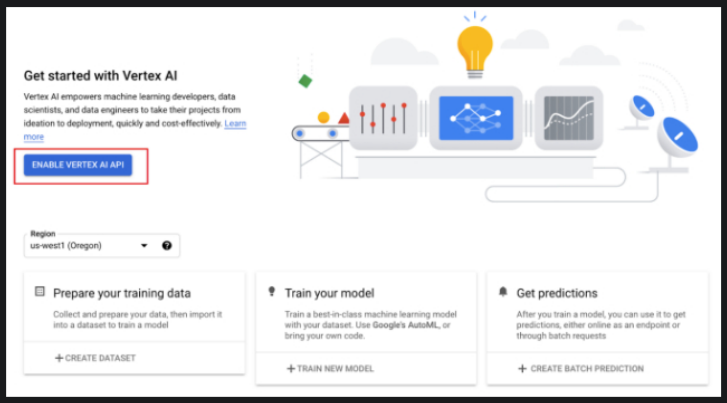
7. Accept the terms and skip the recovery resource page.

> Do not click **End Lab** unless you have finished the lab or want to restart it. This clears your work and removes the project.

Set up your environment

Enable the Vertex AI API

Navigate to the Vertex AI section of your Cloud Console and click **Enable Vertex AI API**.



Confirm the API is enabled

1. Click the **Navigation menu** > **APIs & services** > **Dashboard** icon in the top left of the screen.

2. Click **Enable APIs and services**.

3. Then, search for **AI Platform Training & Prediction API** in the search box. If the API is not enabled, you'll see the **Enable** button. Click **Enable** to enable the API.

Create storage bucket

1. In the Google Cloud Console, on the **Navigation menu** ( ), click **Cloud Storage**.

2. Click **Create bucket**.

3. Type a unique name, such as your project ID.

4. Click **Create**.

Launch Vertex AI Notebooks

1. In the Google Cloud Console, on the **Navigation Menu**, click **Vertex AI > Workbench**.

2. On the Notebook instances page, click **New Notebook > TensorFlow Enterprise >**

2. On the Notebook instances page, click **New Notebook > TensorFlow Enterprise > TensorFlow Enterprise 2.6 (with LTS) > Without GPUs**.

3. In the **New notebook** instance dialog, confirm the name of the deep learning VM, if you don't want to change the region and zone, leave all settings as they are and then click **Create**. The new VM will take 2-3 minutes to start.

4. Click **Open JupyterLab**. A JupyterLab window will open in a new tab.

5. You will see "Build recommended" pop up, click **Build**. If you see the build failed, ignore it.

Clone course repo within your Vertex AI Notebooks instance

To clone the training-data-analyst notebook in your JupyterLab instance:

1. In JupyterLab, to open a new terminal, click the **Terminal** icon.

2. At the command-line prompt, run the following command:

```
git clone https://github.com/GoogleCloudPlatform/training-data-analyst
```

3. To confirm that you have cloned the repository, double-click on the training-data-analyst directory and ensure that you can see its contents. The files for all the Jupyter notebook-based labs throughout this course are available in this directory.

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Step 1

In the notebook interface, navigate to **training-data-analyst > courses > machine_learning > deepdive2 > production_ml > babyweight**, and open **train_deploy.ipynb**.

Step 2

From the menu, click **Edit > Clear All Outputs**.

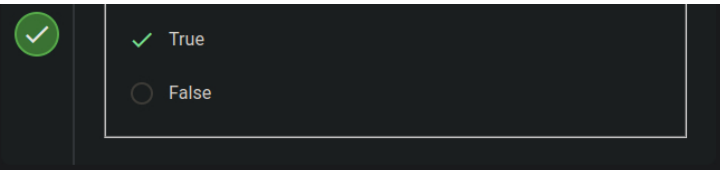
Step 3

Read the narrative and click **Shift + Enter** (or Run) on each cell in the notebook.

Test your knowledge

Test your knowledge about Google cloud Platform by taking our quiz.

Currently as far as Tensorflow is concerned, the only supported GPUs are that of NVIDIA.



Congratulations!

You learned how to train, evaluate, and deploy a machine learning model in Vertex AI Notebooks.

End your lab

When you have completed your lab, click **End Lab**. Qwiklabs removes the resources you've used and cleans the account for you.

You will be given an opportunity to rate the lab experience. Select the applicable number of stars, type a comment, and then click **Submit**.

The number of stars indicates the following:

- 1 star = Very dissatisfied
- 2 stars = Dissatisfied
- 3 stars = Neutral
- 4 stars = Satisfied
- 5 stars = Very satisfied

You can close the dialog box if you don't want to provide feedback.

For feedback, suggestions, or corrections, please use the **Support** tab.