Start Lab 02:00:00

[ML on GCP C3] Basic Introduction to Logistic Regression

2 hours Free ★★★★½ Rate Lab

Overview

Logistic regression is a supervised learning, but contrary to its name, it is not a regression, but a classification method. It assumes that the data can be classified (separated) by a line or an n-dimensional plane, i.e. it is a linear model. In this lab, We will build a neural network that classifies images, train and evaluate the accuracy of the model.

Learning Objectives

- Build a model
- Train this model on example data
- Use the model to make predictions about unknown data

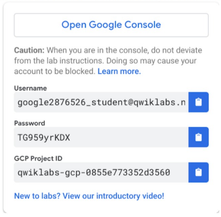
Setup

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

1. Make sure you signed into Qwiklabs using an **incognito window**.
2. Note the lab's access time (for example, 02:00:00) and make sure you can finish in that time block.

> 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. You will use them to sign in to Cloud Platform 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 get errors or **incur charges**.

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

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

Deployment Manager

This lab is using a deployment manager script to create the Cloud AI Platform instance you will need for this exercise.

The notebook instance will contain the github repository you need to complete this assignment. It should take 2 - 3 minutes for the instance to be ready.

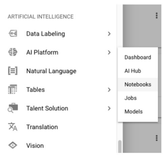
Please wait before launching the Jupyter notebook, otherwise the script may be interrupted and the repository may not be cloned.

Launch AI Platform Notebooks

To launch AI Platform Notebooks:

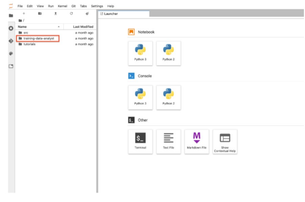
Step 1

Click on the Navigation Menu. Navigate to AI Platforms, then to Notebooks.



Step 2

Click **Open JupyterLab**. A JupyterLab window will open in a new tab. The github repository that you will use should have been already cloned by the Deployment Manager script. The repository is named `training-data-analyst`.



Basic Introduction to Logistic Regression

Step 1

In the notebook interface, navigate to **training-data-analyst > courses > machine_learning > deepdive2 > introduction_to_tensorflow > labs** and opening **basic_intro_logistic_regression.ipynb**.

Step 2

In the notebook interface, click on **Edit > Clear All Outputs** (click on Edit, then in the drop-down menu, select Clear All Outputs).

Carefully read through the notebook instructions and fill in lines marked with #TODO where you need to complete the code as needed

Tip: To run the current cell you can click the cell and hit **shift+enter**. Other cell commands are found in the notebook UI under **Run**.

- Hints may also be provided for the tasks to guide you along. Highlight the text to read the hints (they are in white text).
- If you need more help, you may take a look at the complete solution by navigating to **training-data-analyst > courses > machine_learning > deepdive2 > introduction_to_tensorflow > solutions** and opening **basic_intro_logistic_regression.ipynb**.

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.