

# Using a notebook

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Jupyter notebooks provide an interactive coding and learning environment. You can view explanatory content, modify and run code, and view the results. This page describes how to find and use a Jupyter notebook on AI Hub.

## Finding and using a notebook on AI Hub

1. To find a notebook on AI Hub:

- a. Open your web browser and go to [AI Hub \(https://aihub.cloud.google.com\)](https://aihub.cloud.google.com).
- b. Browse or search for assets, then click **Notebook** under **Category** to filter the list of assets to display only Jupyter notebooks.
- c. Once you find the notebook you are interested in, click the notebook's name. AI Hub displays a description of the notebook and information on how to use it. For more information on how to find assets, read the guide to [finding assets on AI Hub \(/ai-hub/docs/find-asset\)](/ai-hub/docs/find-asset).

2. One or more options for using this notebook are listed under **Use this asset**. For detailed instructions on using this notebook, use the links in the list below to jump to the instructions for using this notebook.

- [Click \*\*Open in GCP\*\* \(#deploy\)](#) to deploy a notebook to an AI Platform Notebooks instance. AI Platform Notebooks is a hosted JupyterLab environment that comes optimized for machine learning (ML).
- [Click \*\*Download\*\* \(#download\)](#) to download a copy of the notebook to your computer. You can experiment with the notebook locally or you can upload it to a hosted Jupyter notebook environment.

- Click **Open in Colab** (#colab) to open the notebook in Colaboratory, a hosted environment based on Jupyter notebooks.

## Deploying a notebook to AI Platform Notebooks

AI Platform Notebooks is a hosted JupyterLab environment that comes optimized for machine learning (ML). To learn more about AI Platform Notebooks, read the [AI Platform Notebooks overview](/ml-engine/docs/notebooks/overview) (/ml-engine/docs/notebooks/overview).

Before you deploy a notebook, follow the steps in the [before you begin guide](/ml-engine/docs/notebooks/before-you-begin) (/ml-engine/docs/notebooks/before-you-begin) to set up your Google Cloud project and enable the Compute Engine API, you need to follow these steps only once.

To deploy a notebook to an AI Platform Notebooks instance:

1. Under **Use this asset**, click **Open in GCP**. A new tab opens and Google Cloud Console is displayed.
2. To deploy a notebook, you must either select an existing AI Platform Notebooks instance or create a new one.

← Open notebook from AI Hub

Notebook: Example notebook v1

To open this notebook, select a notebook instance with the required ML framework, or create a new notebook instance.

Select an existing notebook instance to open

Create a new notebook instance

Instance name \*

Region \*

CREATE CANCEL

- If you do not have an AI Platform Notebooks instance, you will be prompted to create one. If your project already has an AI Platform Notebooks instance, you can deploy the notebook to a new instance by clicking **Create a new notebook instance**.
  - a. Supply the following information to create a new notebook instance:

- **Instance name:** Provide a name for your AI Platform Notebooks instance.
  - **Region:** Select a region for the new instance. Select the region that is geographically closest to you for best network performance.
  - **Zone:** Select a zone within the region that you selected.
  - **ML framework:** Select the ML framework to use for your new AI Platform Notebooks instance.
  - **Machine type:** Select the number of CPUs and amount of RAM for your new instance.
  - **GPU type:** (Optional.) Select the GPU type and Number of GPUs for your new instance. For information about the different GPUs, see [GPUs on Compute Engine \(/compute/docs/gpus\)](#).
  - Select the option to **Install NVIDIA GPU driver automatically on first startup:** (this is a legal requirement). You can modify the GPU type and number of GPUs for your instance after it is created. For more information, learn how to [manage hardware accelerators for a notebook \(/ml-engine/docs/notebooks/manage-hardware-accelerators\)](#).
  - **Boot disk type:** Select the boot disk type for your new instance.
  - **Boot disk size in GB:** Specify the boot disk size in GB.
- b. Click **Create** to create your new AI Platform Notebooks instance.
  - c. JupyterLab opens in a new tab with the notebook you found on AI Hub.
- To deploy this notebook to an existing AI Platform Notebooks instance.
    - a. Select the AI Platform Notebooks instance you would like to deploy this notebook to and then click **Continue**.

Select an existing notebook instance to open

Create a new notebook instance

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☰ Filter table

	Instance name	Region	ML framework	Machine type	GPUs	Labels
<input checked="" type="radio"/>	<a href="#">example-instance</a>	us-west1-a	TensorFlow	1 vCPU, 3.75 GB RAM	None ▾	No labels

b. JupyterLab opens in a new tab with the notebook you found on AI Hub.

## Download a Jupyter notebook

Download a notebook from AI Hub to experiment with it locally or to upload the notebook to a hosted environment.

To download a Jupyter notebook from AI Hub:

1. Click **Download** under **Use this asset**. The notebook downloads to your computer.
2. You can now open the notebook in [Jupyter](https://jupyter.org/) (https://jupyter.org/) on your computer or upload it to a hosting environment such as [AI Platform Notebooks](#) (/ml-engine/docs/notebooks/overview) or [Colab](https://colab.research.google.com/notebooks/welcome.ipynb) (https://colab.research.google.com/notebooks/welcome.ipynb).

## Open a Colab notebook

Colaboratory is a free hosted Jupyter notebook environment that you can use to experiment and learn.

To open a notebook in Colaboratory:

1. Click **Open in Colab** under **Use this asset**. The notebook opens in a new browser tab.
2. Follow the instructions in the Colab notebook. If you need help with using the notebook interface, click **Help** in the Colab menu.

## What's next

- Learn how to [upload a notebook](#) (/ai-hub/docs/publish-notebook) on AI Hub.
- Understand important concepts and terms by reading the [introduction to AI Hub](#) (/ai-hub/docs/introduction).

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