# Google Colab and Jupyter

#### • Getting Set Up

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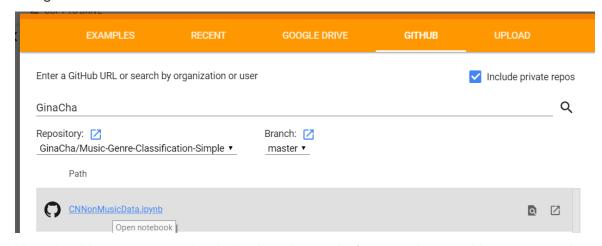
This is a quick guide to starting v3 of the fast.ai course Practical Deep Learning for Coders using Colab.

NB: This is a free service that may not always be available, and requires extra steps to ensure your work is saved. Be sure to read the docs on the Colab web-site to ensure you understand the limitations of the system.

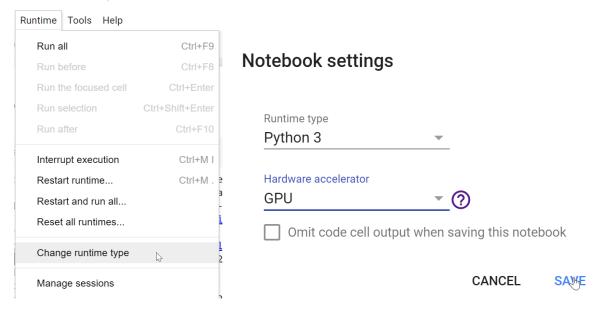
# Getting Set Up

#### Step 1: Accessing Colab

- First of all you should sign in to you Google account if you are not signed in by default. You must do this step before opening Colab, otherwise the notebooks will not work. You can sign in <a href="here">here</a>.
- Next, head on to the <u>Colab Welcome Page</u> and click on 'Github'. In the 'Enter a GitHub URL or search by organization or user' line enter 'fastai/course-v3'. You will see all the courses notebooks listed there. Click on the one you are interested in using.



3. You should see your notebook displayed now. Before running anything, you need to tell Colab that you are interested in using a GPU. You can do this by clicking on the 'Runtime' tab and selecting 'Change runtime type'. A pop-up window will open up with a drop-down menu. Select 'GPU' from the menu and click 'Save'.



### Step 2: Configuring your notebook instance

- 1. Before you start using your notebook, you need to install the necessary packages. You can do this by creating a code cell, and running:
- 2. !curl -s https://course.fast.ai/setup/colab | bash
- 3. When you run the first cell, you will face a pop-up saying 'Warning: This notebook was not authored by Google'; you should leave the default tick in the 'Reset all runtimes before running' check box and click on 'Run Anyway'.

# Warning: This notebook was not authored by Google.

This notebook is being loaded from GitHub. It may request access to your data stored with Google, or read data and credentials from other sessions. Please review the source code before executing this notebook. To prevent this notebook reading state from other sessions, you can reset all runtimes.

Reset all runtimes before running

CANCEL

RUNANYWAY

4. On the new window click 'Yes'.

#### Reset all runtimes

Are you sure you want to reset all runtimes? State of all runtimes, including all local variables and files, will be lost.

CANCEL

# Step 3: Saving your notebook

If you opened a notebook from Github, you will need to save your work to Google Drive. You can do this by clicking on 'File' and then 'Save'. You should see a pop-up with the following message:

#### Cannot save changes

This notebook is in playground mode. Changes will not be saved unless you make a copy of the notebook.

CANCEL SAVE A COPY IN DRIVE

Click on 'SAVE A COPY IN DRIVE'. This will open up a new tab with the same file, only this time located in your Drive. If you want to continue working after saving, use the file in the new tab. Your notebook will be saved in a folder called Colab Notebooks in your Google Drive by default.

## Step 4: Saving your data files

If you run a script which creates/ downloads files, the files will NOT persist after the allocated instance is shutdown. To save files, you need to permit your Colaboratory instance to read and write files to your Google Drive. Add the following code snippet at the beginning of every notebook.

```
from google.colab import drive

drive.mount('/content/gdrive', force_remount=True)

root_dir = "/content/gdrive/My Drive/"

base_dir = root_dir + 'fastai-v3/'
```

Now, you may access your Google Drive as a file system using standard python commands to both read and write files. Don't forget to append base\_dir before root path(s) in all notebooks. For example, in lesson2-download.ipynb 5th cell, make the following changes:

```
path = Path(base_dir + 'data/bears')

dest = path/folder

dest.mkdir(parents=True, exist_ok=True)
```

# Step5: Saving the CNNonMusicData.ipynb to Github with the results

Now we click on the menu File>Save a copy in Github and it will replace the file we connected to Google Colab with the open presentation we have now.

