



INTRODUCTION GOOGLE COLAB

Google Colaboratory

- Zero configuration required
- Free access to GPUs
- Easy sharing

Tools

Data Preparation



Data Visualization



Machine Learning



Deep Learning



Keras

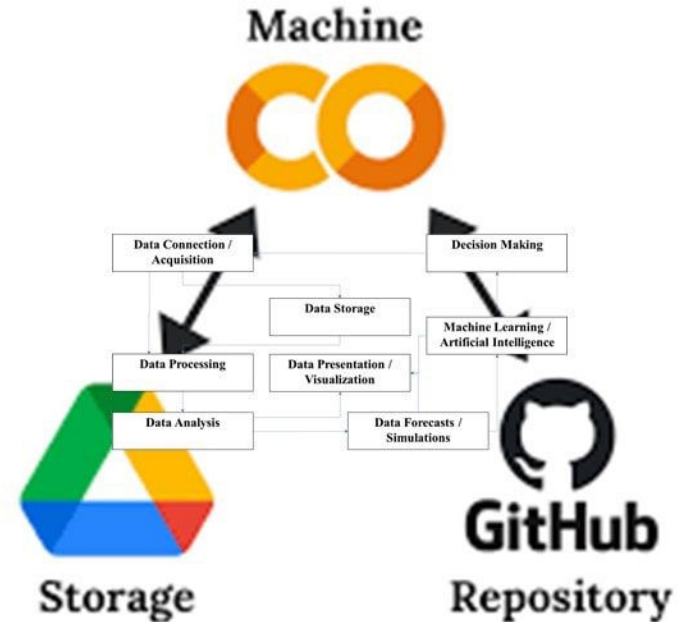


TensorFlow

GIS mapping



GeoPandas





Welcome To Colab

File Edit View Insert Runtime

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- Getting started
- Data science
- Machine learning
- More Resources
- Featured examples
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Share



K

Connect



Open notebook

Examples >

Recent >

Google Drive >

GitHub >

Upload >

Search notebooks



Title

Last opened ↓

First opened ↑↓



Welcome To Colab

2:29 AM

Jun 11, 2024



Untitled11.ipynb

2:19 AM

2:19 AM



Untitled10.ipynb

2:18 AM

February 22



Solution_Practice_awk_partII.ipynb

February 22

February 22



Solution_Practice_awk.ipynb

February 22

February 15



Practice_basic AWK part II.ipynb

February 22

February 15



Copy of Basic Linux_commands

February 22

February 22



+ New notebook

Cancel

add code cell

add text cell

Google Colab interface showing the 'Untitled10.ipynb' notebook. The 'File' menu is open, and the '+ Code' and '+ Text' options are highlighted with red boxes. Arrows point from the text labels 'add code cell' and 'add text cell' to these options. The main editor area contains a single code cell with the text '1 | start coding or generate with AI.' The left sidebar shows icons for file explorer, search, and other tools. The top right has a 'Connect' button and a 'Gemini' AI model selector.

table of content

upload file

The screenshot shows the Google Colab web interface. At the top, there's a header with the Colab logo, the text 'Untitled10.ipynb', and a star icon. Below this is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Runtime', and 'Tools'. The 'File' menu is open, showing options like 'New', 'Open', 'Save', 'Download', 'Upload', 'Mount to drive', and 'Recent'. The 'Mount to drive' option is highlighted with a red box. Below the menu, there's a file explorer showing a folder named 'sample_data'. At the bottom, there's a status bar showing 'Disk' and '75.06 GB available'. Arrows from the text labels point to the 'Mount to drive' option and the 'sample_data' folder.

files

Help

All changes saved

+ Code + Text

1 Start coding or generate with AI.

↑ ↓ ✦ 🔗 📄 ⚙️ 📄 🗑️ ⋮

Resources

✓ RAM
Disk

Gemini

You are not subscribed. [Learn more](#)

You currently have zero compute units available. Resources offered free of charge are not guaranteed. Purchase more units [here](#).

At your current usage level, this runtime may last up to 85 hours 40 minutes.

[Manage sessions](#)

Want more memory and disk space? [Upgrade to Colab Pro](#)

Python 3 Google Compute Engine backend

Showing resources from 2:59 PM to 3:00 PM

System RAM
1.1 / 12.7 GB

Disk
32.7 / 107.7 GB

[Change runtime type](#)

✓ Connected to Python 3 Google Compute Engine backend

Colab interface showing the "Change runtime type" dialog box. The dialog allows switching between runtime types (Python 3) and hardware accelerators (CPU, T4 GPU, A100 GPU, L4 GPU, v2-8 TPU, v5e-1 TPU). The "CPU" option is selected. The dialog also includes a link to "Purchase additional compute units" for premium GPUs.

Annotations:

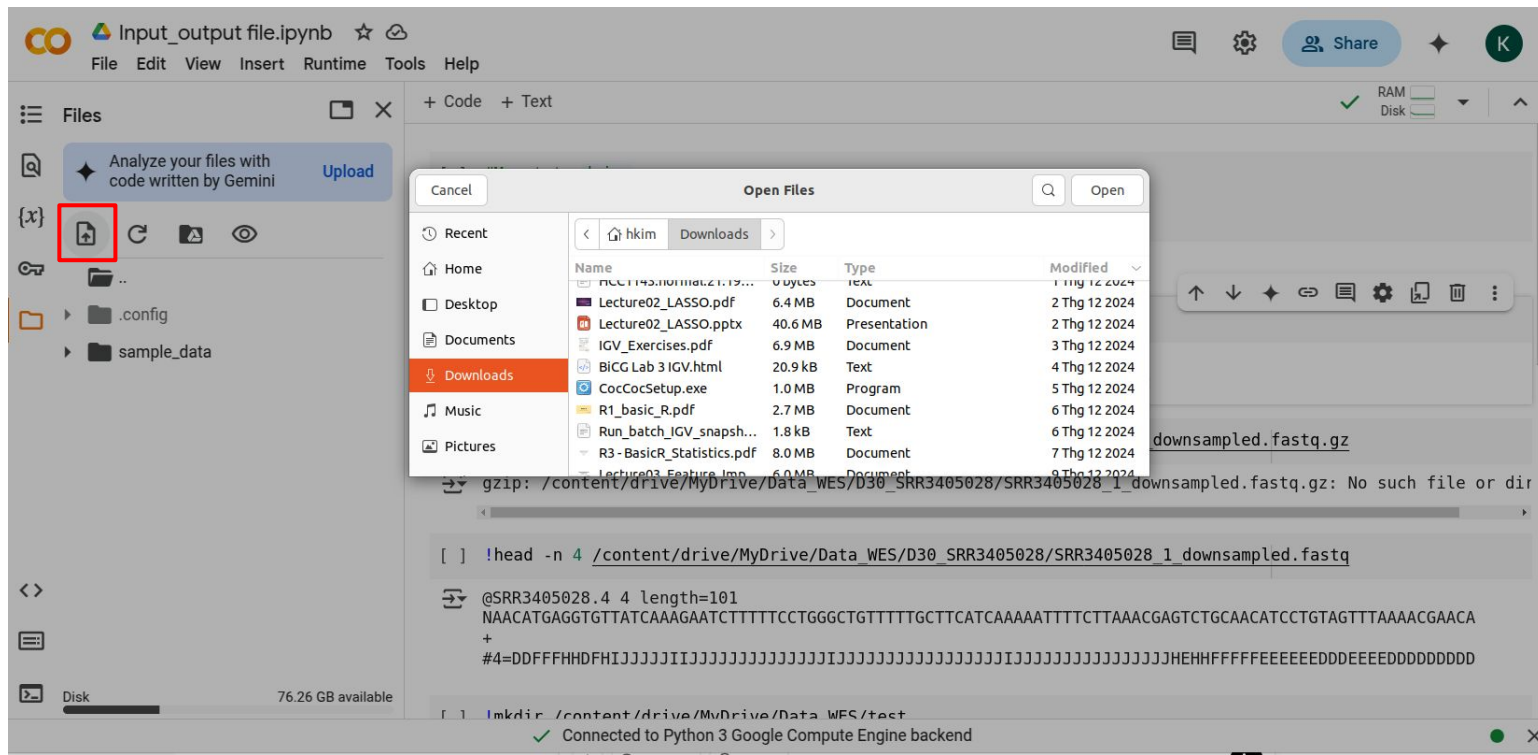
- "only for colab pro" points to the "Purchase additional compute units" link.
- "can switch back and forth between python and R" points to the "Runtime type" dropdown menu.

Resources panel on the right shows system RAM (1.1 / 12.7 GB) and Disk (32.7 / 107.7 GB) usage.

Footer: Connected to Python 3 Google Compute Engine backend

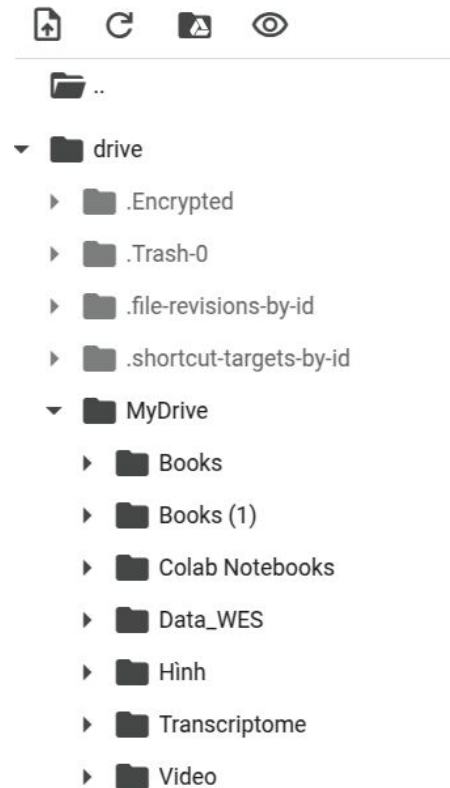
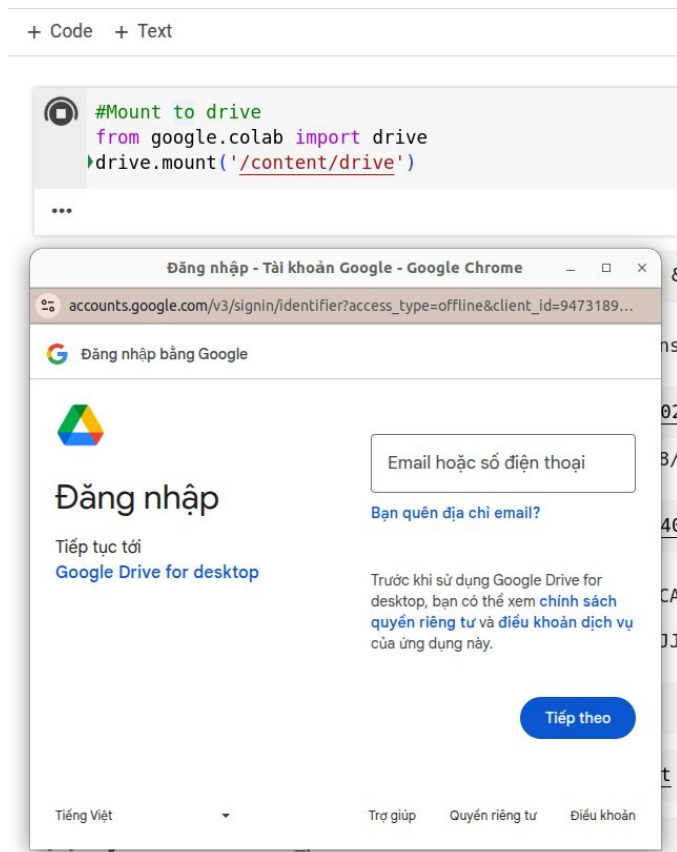
Input file

- From local to colab



Input file

- From Drive to colab



Input file

- Download file from drive to colab

```
[ ] !gdown 1WBkCxx8HWv_p2LaKvJ0cLwXKA-bABMfL
```



Downloading...

From (original): https://drive.google.com/uc?id=1WBkCxx8HWv_p2LaKvJ0cLwXKA-bABMfL

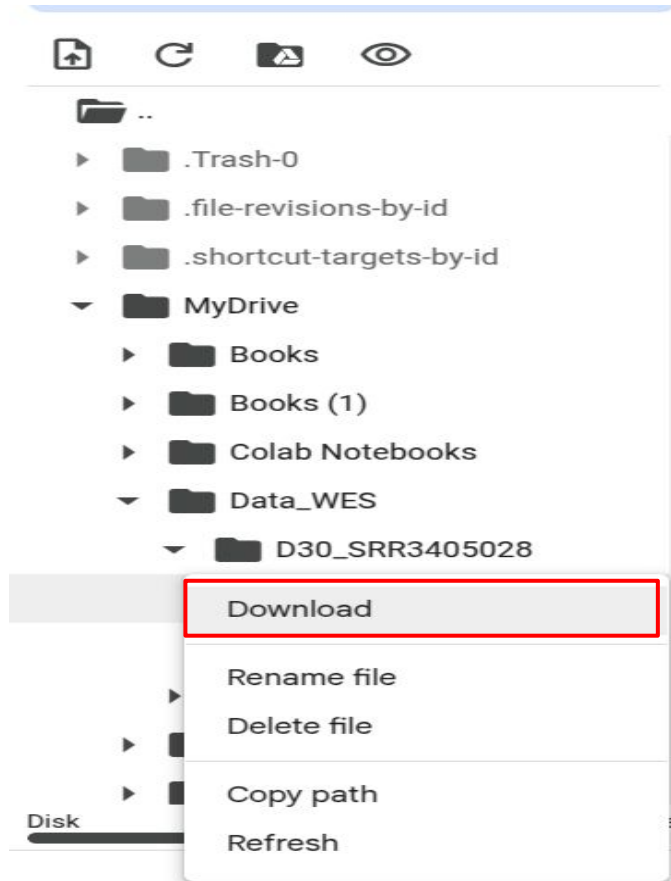
From (redirected): https://drive.google.com/uc?id=1WBkCxx8HWv_p2LaKvJ0cLwXKA-bABMfL&confirm=t&uuid=30a80dbd-9eb1-4780-aa89-ac

To: /content/SRR3405028_2_downsampled.fastq.gz

100% 901M/901M [00:07<00:00, 123MB/s]

Output file

- Download file to local



The background is a blurred image of a computer screen displaying code. The code is in various colors (blue, green, yellow) on a dark background, typical of a code editor. Some legible snippets include 'the_post()?', 'has_post_thumbnail()', 'col-sm-6 col-xs-12 sidebar-', and 'the_permalink();'.

THANK YOU