Google Colab: Quick Reference Guide

MIS 769 - Big Data Analytics for Business | Spring 2026

What is Google Colab?

Google Colab is a free, cloud-based Jupyter notebook environment that requires no setup. Write and execute Python code in your browser with free access to GPUs.

Start here: colab.google/notebooks

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10 Power Tips for 2025/2026

1. **Secrets Manager** - Use the Key icon to securely store API keys (Kaggle, OpenAI). Access with `google.colab.userdata.get('key_name')`.
   Keys for this class: OPENROUTER_API_KEY, HF_TOKEN
2. **AI Toggle** - Instructors can disable built-in AI assistance per notebook to ensure authentic student learning.
3. **Free GPU Access** - Free tier includes T4 GPUs. Purchase compute units ($0.41-$4.71/hr) for A100 access or better uptime.
4. **Data Table View** - Automatic visualizations appear when viewing DataFrames—explore data without writing plot code.
5. **Google Drive Mount** - `from google.colab import drive; drive.mount('/content/drive')` for fast access to large datasets.
6. **Terminal Access** - Open a terminal for file management or running background processes.
7. **VS Code Integration** - Connect local VS Code to Colab runtime via SSH—use your preferred editor with cloud compute.
8. **Git Sync** - Push commits directly back to GitHub from your notebook.
9. **Slideshow Mode** - Convert notebooks into interactive presentations instantly.
10. **Fun Modes** - Enable “corgi mode” or “kitty mode” in settings for animated coding companions.

Runtime: Python 3.12

Resources

- **Official Docs:** developers.google.com/colab
- **Notebook Gallery:** awesome-colab-notebooks - Curated collection of useful Colab notebooks for ML, data science, and more