📖 Google Colab Interface Manual

🔼 Top Menu Bar

File
- **New Notebook** – Create a fresh `.ipynb` file.
- **Open Notebook** – Load an existing notebook (from Drive, GitHub, local upload, or Colab examples).
- **Upload Notebook** – Import a `.ipynb` file from your computer.
- **Save a Copy in Drive** – Save a duplicate of the notebook into Google Drive.
- **Download** – Export as `.ipynb`, `.py`, or `.html`.
- **Revision History** – Check older versions and restore them.
- **Move to Trash** – Delete the notebook.

Edit
- **Undo/Redo** – Basic text editing.
- **Cut/Copy/Paste Cells** – Manage entire code/text cells.
- **Find & Replace** – Search or replace code inside notebook.
- **Indent/Outdent** – Adjust code alignment.

View
- **Expand Sections** – Collapse or expand cells.
- **Output Options** – Hide/show code outputs.
- **Presentation Mode** – Cleaner display for teaching.
- **Dark/Light Theme** – Switch between themes.

Insert
- **Code Cell** – Add new Python code cell.
- **Text Cell (Markdown)** – Add formatted text, images, equations.
- **Form Field** – Add interactive widgets (dropdowns, sliders).
- **Section Header** – For organization.

Runtime
- **Run All** – Execute all cells from top to bottom.
- **Run Before/Run After** – Selectively execute based on position.
- **Restart Runtime** – Clear memory & restart kernel.
- **Change Runtime Type** – Choose Python version, GPU/TPU.
- **Manage Sessions** – Disconnect or monitor memory usage.

Tools
- **Command Palette (⌘/Ctrl + Shift + P)** – Search all commands quickly.
- **Preferences** – Adjust font size, editor theme, keymap (Jupyter/Vim).
- **Keyboard Shortcuts** – See or customize shortcuts.
- **Variables Inspector** – Monitor live variables.

Help
- **Documentation** – Links to Colab & Python docs.
- **Cheat Sheets** – Keyboard shortcuts and commands.
- **Report a Problem** – Send feedback to Google.

⬜ Notebook Header
- **Filename (Untitled30.ipynb)** – Name of the notebook, click to rename.
- **Star Icon** ⭐ – Bookmark the notebook in Drive.
- **Folder Icon** – Shows location in Google Drive.
- **Share Button** – Control permissions (view/edit/comment).

▶️ Toolbar under Filename
- **Commands** – Quick access to actions.
- **+Code** – Insert a new code cell.
- **+Text** – Insert a new text/Markdown cell.
- **Run All (▼)** – Run all cells or choose variations (before/after, etc.).

📑 Sidebar (left icons)
1. **Table of Contents** – Navigate between notebook sections.
2. **Search** – Find text/code inside notebook.
3. **Files** – Browse your Drive/local files, upload/download.
4. **Code Snippets** – Ready-to-use Python snippets.
5. **Variables Panel** – Inspect all active variables & memory usage.

🖥️ Main Code Area
- Cells contain either:
  - **Code** (Python) – Executable with ▶️.
  - **Text (Markdown)** – Notes, titles, formatted text.
- Each cell has a toolbar:
  - ⬆️⬇️ (Move cell),
  - ▶️ (Run),
  - 🔗 (Add to playlist),
  - ⚙️ (Settings).

⚡ Runtime Connection (top-right "Connect")
- Shows if your notebook is connected to a backend.
- Options:
  - **Connect/Disconnect** – Attach to Google's cloud VM.
  - **Change runtime type** – Switch CPU, GPU, TPU.
  - **Manage sessions** – End unused runtimes.

🔽 Bottom Bar
- **Variables** – Open variable explorer.
- **Terminal** – Access Linux terminal inside Colab.