

## Main steps:

### Step 1. Get the Notebook

- 1.1 Download the file named main.ipynb from <https://doi.org/10.6084/m9.figshare.28405409>

### Step 2. Open it with Google Colab

- 2.1 Sign Up for a Google Account (if needed)
- 2.2 Access Colab and Upload the Notebook

- Visit <https://colab.research.google.com>.
- From the main Colab page, click File > Upload notebook.
- Select the main.ipynb file downloaded to upload.

### Step 3. Run the notebook

Once uploaded, click Run All (in the top toolbar or via Runtime > Run all) to execute all cells in the notebook.

### Step 4. Enter OpenAI API Key

Once prompted like this, enter your personal OpenAI API key into the box and press Enter.

... Enter your OpenAI API key:

### Step 5. Enter OpenAI model name

Once prompted like this, enter the OpenAI model you would like to use throughout this workflow into the box and press Enter. Available options include gpt-4-1106-preview, gpt-4o, gpt-4o-mini, etc.

Enter the name of the LLM you want to use for this workflow (available options include gpt-4-1106-preview, gpt-4o, gpt-4o-mini, etc.)

### Step 6. Upload the papers

Once required, click “Select a file” and upload your papers in PDF format here. Multiple files can be uploaded at once.

Select a file

No files have been selected

Cancel upload

## Step 7. Plot system charts generated (Optional)

After obtaining all system charts, you can choose to plot them by entering “yes” in this box (entering “no” will terminate execution).

Would you like to plot all of the generated system charts? Type 'yes' or 'no'.

Once finished, all simplified system charts generated during the intermediate step will be saved in the file named “simplified\_system\_chart.txt.” All plots will be placed under the “/content/plots/” folder, with each subfolder corresponding to an individual system chart.

## Additional information:

### 1. Obtain and Manage an OpenAI API Key

1.1 Go to <https://platform.openai.com/>.

1.2 If you don’t have an account, click Sign up and follow the instructions.

1.3 Once logged in, click your profile icon (top-right corner) and select API keys from the menu.

1.4 Click + Create new secret key.

1.5 Optionally provide a descriptive name (e.g., “MyProjectKey”).

1.6 Copy the generated key to a secure location. You will not be able to view the full key again later.

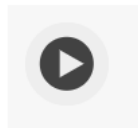
**Note:** You must keep your API key private. Use environment variables or a secure location in your notebook to store it, rather than hard-coding it directly.

## 2. Where Are the Generated Files Saved in Colab?

- By default, files generated by your notebook (e.g., .txt, .png output) are stored in the virtual machine’s file system.
- To view them, **click the folder icon** on the left panel in Colab to **unhide and browse** the file system.

## 3. How to Selectively Run (or Stop) Code Blocks

- Run a specific code cell: Click the play icon (triangle) on the left side of the cell.



- Stop (interrupt) a running cell: Click the stop icon (square) on the left side of the cell while it is executing.



## 4. How to Clear Files and Reset the Environment

4.1 In Colab, click Runtime in the top menu.

4.2 Select Disconnect and delete runtime (or Factory reset runtime).

4.3 This will end your current session, remove all temporary files, and reset any stored parameters in the virtual machine.