User Guide

There are two options for users who want to use this application to evaluate potential passwords. One option is to run this in Google Colab, where it was created. The only restriction here is that to run the file; you must first log in to an active Google account. If you do not have access to a Google account, please see Option 2, which uses Juypter Notebook to run the application.

Option 1: Run the program in Google Colab.

1. In your browser of choice, navigate to <https://colab.research.google.com/github/AhWhale/CapstonePasswordEvaluator/blob/main/CapstonePasswordEval.ipynb>
2. Your screen should now look like this:  
   A screenshot of a computer

   Description automatically generated  
   From here, please click Runtime / Run All.
3. You will see the following message on your screen:  
   A screenshot of a computer

   Description automatically generated  
   Click Run Anyway.
4. Scroll to the bottom of the page, and you will see the initial message: “Processing Passwords. This will take some time to run, as the machine learning model is training on the test data and preparing for user input. On my machine, which is a fairly generic laptop, it takes around 7 minutes. When ready for user input, the CLI will look like this:  
   A screenshot of a computer

   Description automatically generated
5. Input a password in the box on the CLI.  
   
6. Look at the response from the application to see the strength evaluation for your password.  
   A group of black letters

   Description automatically generated
7. Repeat as desired or input q to quit the process.
8. To view the visualizations, click on the folder icon on the left-hand side of the page.  
   A screenshot of a computer

   Description automatically generated
9. From here, click on the desired visualization to populate it on the right-hand side of the page.

A screenshot of a computer

Description automatically generated

Option 2: Run the program in Jupyter Notebook.

1. Install any required libraries. To do this, open a terminal or command prompt, and run this command: pip install pandas numpy scikit-learn matplotlib seaborn jupyter unittest
2. Navigate to the directory where you have stored the attached .ipynb file using this command: cd /path/to/your/file/location.
3. Launch Juypter Notebook with this command: jupyter notebook.
4. When the interface opens, find the .ipnyb file and select it.
5. This will open the notebook. Once open, please click Kernal in the top menu, and then select Restart and run all.
6. Please wait for the program to run in its entirety; this may take some time.
7. When complete, there will be a prompt in the output at the bottom of the program requesting that you enter a password. Enter a password here and press enter.
8. View the returned strength rating and repeat as desired. Enter “q” to quit.
9. To view the generated visualizations, look for .png files in the same directory as your .ipynb file. You can open these files using any image viewer on your system.

Thank you for using the Password Strength Evaluator! Let me know if you have any questions.