

Expected solution steps:

- Implement a class called *Command* (or any other name) that includes functions for each of the following:
 - Grep
 - Categorize
 - Mv_last

The project has a description of each one of the mentioned commands. For the grep command, you may also use <directory> instead of the <filename>.

Factory design pattern shows how to use inheritance from a main class in python. It will be helpful in this class.

- Implement a class called *Parse* (or any other name) that will **import** previous class and its functions. This class will **read a text** file that has commands chosen from the three commands (grep, categorize, mv_last) **only**. **An example of how this text file can look like is also mentioned at project description (script.txt).**

Start by using a fixed path for the script and output (log), after that you switch to option parser.

- Some commands/steps need configuration values (**like code constants**). These values will be specified into a JSON file. This file can be read as a dictionary in python, check:

https://www.w3schools.com/python/python_json.asp

This step will be the beginning of the Parse class – you load the values from JSON and get them into your code. Once you have the values, you can use them within your code.

- To run the code with arguments, we need to use what we call an **option parser** in python to add “-s” and “-o”. Check the following to check how to add options to a python run command:

- <https://wiki.python.org/moin/OptParse>
- <https://docs.python.org/3/library/optparse.html>

- When you run the code, the text file will be read and **each line will be executed** and a result will be **pushed into a python dictionary** (you are free to use the output you want for each command – True/False for example). **If we have more commands than max_commands in JSON → execution stops**. Your dictionary may look like something like this – or any other format you choose:

```
{
  "Line-1": "True",
  "Line-2": "False",
}
```

- When execution is done, the code will do the following:
 - paste data **in the format of logger statements** from the above-mentioned dictionary to a new log file. Each run will create a new log file (**output**). Write a small function to create your new log, the function will take the dictionary and paste results to a file using logging statements:

- <https://realpython.com/python-logging/>
- The output can take the form of normal log or csv. JSON value “**csv**” decides. One way to create csv from python output:
<https://stackoverflow.com/questions/37912556/convert-a-log-file-into-a-csv-file-using-python>
- If log files are more than the max log files number (value in JSON), you need to delete the **oldest one**.
- PASSED value in JSON decides if you need a separate directory for PASSED scripts or not. In case its **True**, create a separate log folder for PASSED scripts.