



DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING  
AIR UNIVERSITY

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# PROJECT REPORT

Computer Application And Engineering Design

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## Teacher Portal Using Python GUI

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# 1 INTRODUCTION

GUI-based Teacher Portal that takes care of handling CSV/Excel files with the format that is defined by the user and Computes the End Result automatically without the user manually adding up values and writing at the end. This Portal allows the user to Select files in your system, Evaluate it, Display the CSV Files, Search the Matching Description by Roll Number and lastly, Writing the Evaluated File into a new CSV File.

## 2 OBJECTIVES

- To develop a code to help teacher determine result with provided weight-age, and structure of csv file.
- To allow teacher to enter the file.
- To search respective students based on result.
- To allow make file of respective result file of desired result.
- And to display the output file.

### Software Used :

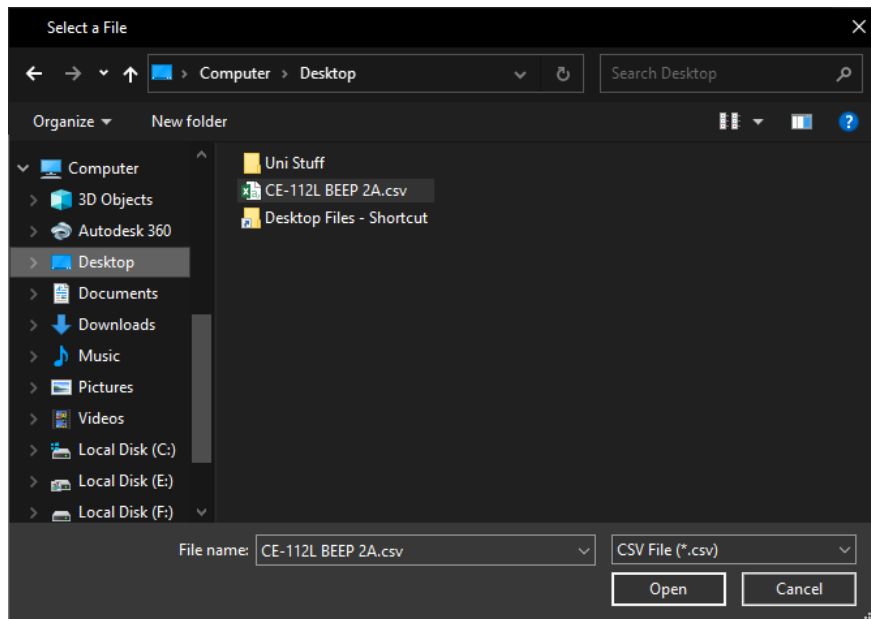
- VS Code
- Jupyter notebook

## 3 Project Learning Outcomes

- Understand the flow of the Project.
- Plan and flow Project Plan.
- Collaborate Together for final output.
- Review the Objectives

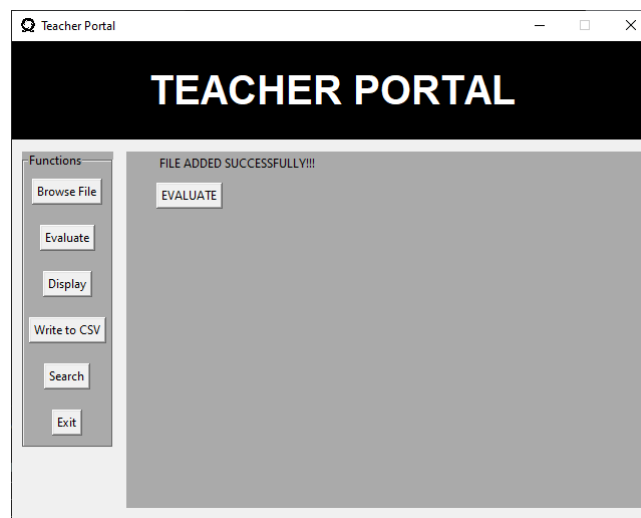
## 4 Code Snippets:

Following are the Output Screenshots of Source Code;



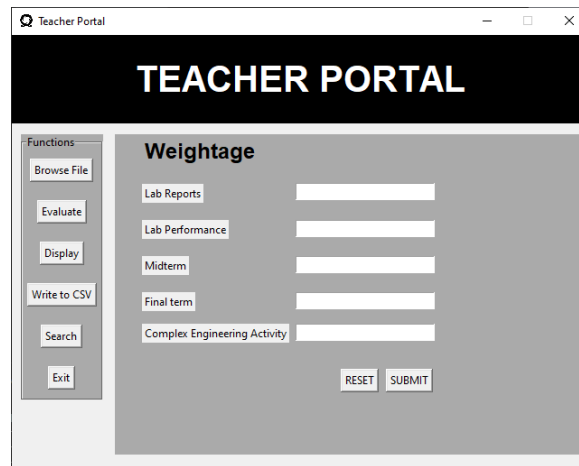
This is our file which hold all the information required by the portal except the weightage which will be added manually

### Screenshot 1



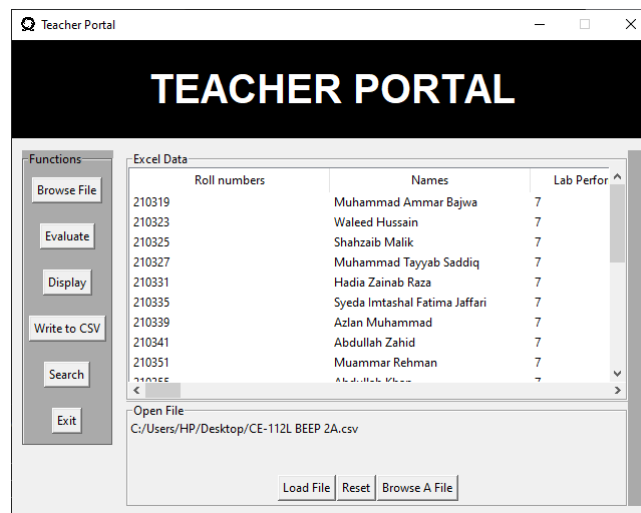
In this after adding the file to the Portal, the code asks user whether he/she wants to evaluate the file now or not.

### Screenshot 2



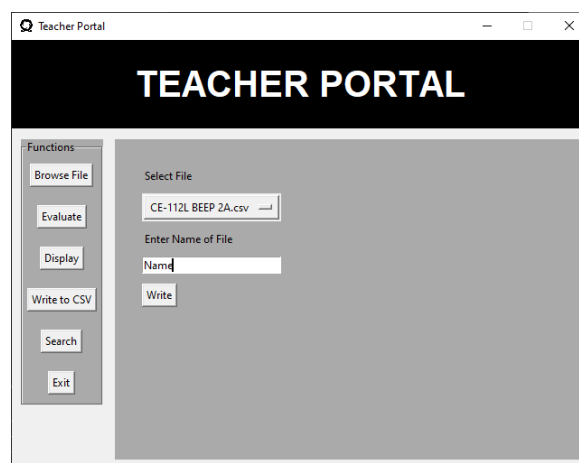
When we select evaluate the code ask us to define the weight-age of our assessment.on the bases of that the code will evaluate and show output.

### Screenshot 3



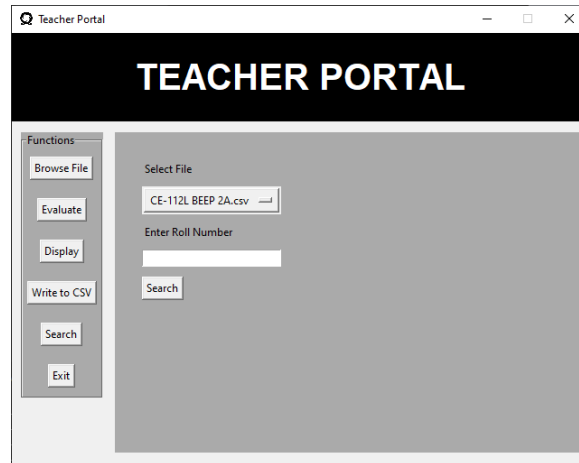
This is the GUI display bar it display the file which is amended after our work is done in the file.

### Screenshot 4



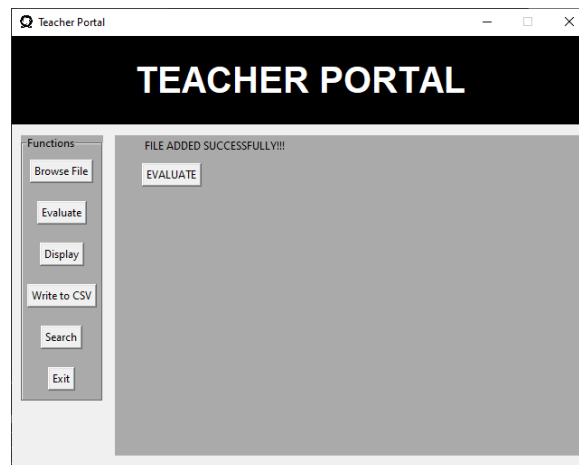
In this function the code ask us whether we want to write the file and also to enter the name of the file we want to write.

### Screenshot 5



This is the final function and it allows the user to search student result through its roll number.

### Screenshot 6



This is a Generic Program that allows the user to calculate the Class result even if you are a Lab instructor or other simply 3 credit hour class Screenshot 7

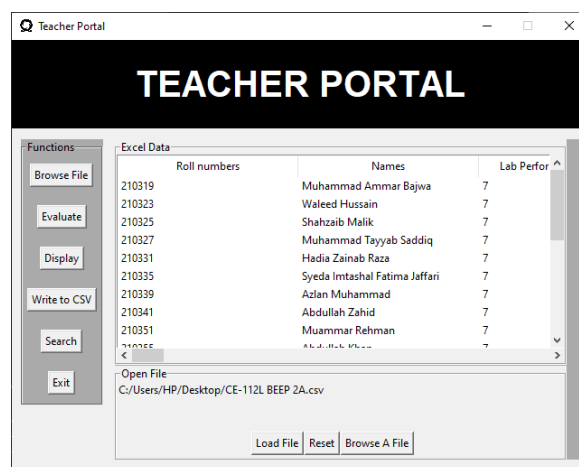
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS
5. Back
6. Exit
1
Roll Num Name Lab Performances ... Grand Total Total Grade
0 211135 Muniba Ali 17.33333 ... 68.169697 100 B
1 211136 Ifrah Kamran 15.466667 ... 63.569697 100 B
2 211142 Iman Ali Shahid 10.133333 ... 38.868606 100 D
3 211143 Kahab Abdullah 14.133333 ... 56.868606 100 C
4 211145 Noor-Ul-Ain 19.733333 ... 56.739394 100 C
5 211148 Syeda Iqra Naveen 15.2 ... 64.589891 100 B
6 211149 Aamnah Sultan 14.4 ... 39.945455 100 D
7 211150 Muhammad Ahmed 13.6 ... 44.678788 100 D
8 211152 Muhammad Anslan Siddique 12.8 ... 45.975758 100 D
9 211153 Muqaddas Shakeel 12.0 ... 45.581818 100 D
10 211154 Anum Faisal 10.4 ... 44.515152 100 D
11 211155 Khunsha Ahmed 13.066667 ... 39.363636 100 D
12 211156 Rania Khalid 6.666667 ... 31.424242 100 D
13 211157 Zunaina Shafqat 7.466667 ... 34.636364 100 D
14 211158 Zohaib Hassan Shakir 11.733333 ... 53.838303 100 C
15 211159 Aroosha Irfan 14.666667 ... 70.38303 100 A
16 211160 Laiba Idrees Kayani 12.0 ... 42.375758 100 D
17 211161 Shanzay Nadeem 13.066667 ... 52.363636 100 C
18 211162 Manahil Fatima 18.4 ... 53.068606 100 C
19 211164 Manal Haider 15.466667 ... 46.38303 100 D
20 211166 Ahsan Naveed 18.133333 ... 55.206061 100 C
21 211167 Rida-E-Fatima 16.0 ... 38.842424 100 D
22 211168 Nimra Riaz 14.133333 ... 58.018182 100 C
23 211170 Mahnoor Jabeen 12.8 ... 51.418182 100 C
24 211173 Aliza Ranash 15.2 ... 45.98303 100 D
25 211174 Muhammad Talha Imad El Din 10.666667 ... 32.363636 100 D
26 211175 Muhammad Hammad Javaid 12.8 ... 60.6 100 B
27 211940 Sadeem Ali 13.866667 ... 56.58303 100 C
28 212045 Muhammad Abdur Rehman Ali 14.133333 ... 41.169697 100 D
29 212094 Abdul Rehman 15.2 ... 61.678788 100 B

[30 rows x 10 columns]
1. Display class result
2. Generate class result in a new .csv file
3. Particular Student result
4. Highest and Lowest Marks in Class
5. Back
6. Exit
2
File Successfully Generated into .csv file
1. Display class result
2. Generate class result in a new .csv file
3. Particular Student result
4. Highest and Lowest Marks in Class
5. Back

```

These are the functions . **Screenshot 8**



## 5 Conclusion

- In this project we used our knowledge about python and different libraries of python to develop a teacher portal based on pandas and numpy.
- Our code is not restricted to a specific structure of csv file its generic by this i mean it ask the user to define the structure of csv file.
- On further Implementation we were provided with the task to use GUI and design an application that make these implementation more easier for the user which we have implemented using Visual Studio code and GUI.



- This project helped me to learn about numpy and pandas, and how we can use them to modify our data.
- We get to know about so many built-in function of numpy and pandas that help us to perform different functions.
- We practiced to read and write data into our csv files. we also get to know about different functions of Numpy like how to create a ndarray or matrix and vector using Numpy and perform different operations on that array.
- Further, we get to know about more built-in functions offered by numpy. Last but not the least, we learn to display data in a professional manner using Pandas. LUL
- the main aim of this project was to Implement GUI which we have done successfully and learnt about different functions and features of Tkinter based GUI.