

OOP ASSIGNMENT 01

Course code: CS-116

Name: SYED MUHAMMAD TAIMOOR

Roll No: CS-031

Batch: 2020

Course Teacher: DR. MARIA WAQAS

Topic: Making a Database Application

Project: National University Admission Database

REPORT:

This Database is user-friendly and interactive. There is a menu given which provides you many different operations to perform, such as: Input Records, Display the Records, Save the records in the file, Search in the Records by providing the Student ID to the computer and there is also an Exit option whenever user wants to exit. There is a while which goes on continuation until user wants.

1) Input Records:

In inputting the records, there is a function built. In function, there is a while loop which takes input Student name, Student ID, SSC percentage, HSSC percentage, University Entry Test Marks and the records have been appended to the list. Then, it asks user if he/she wants to input records more if 'Yes' process continues,

otherwise it asks user to save in file at that time if he/she wants, if 'Yes' it saves in file, otherwise it returns to main menu.

2) Save Records in file:

To save, a function is built. It opens a file 'Universitydatabase.txt' in append mode. With the help of 'for loop' it writes the contents of records in the file and then prints a message "The records have been saved."

3) Display Records:

To display the records, a function is built. It calls the "Load Records" function which is also being made in the program. The "Load Records" function opens the file "Universitydatabase.txt" in read mode and with help of "readlines" appends all lines of file into list and returns into the called function. Then, with help of "for loop" accessing 1 list at a time, with help of "split" converts each element into string and then prints all the information in Table format by using ".format" presents beautifully in the screen. It also displays the aggregate of each student individually and also display the status "Pass" or "Fail".

4) Search:

To search in records, a function is built. It first calls "Load Records" function which returns all the records like in "Display Records" function. It then input Student Id from user and checks it with all ids in the file; if it matches, it displays all information about that student if it does not match, it displays an error message.

This is how this database works and at last whenever user wants to quit, he/she can quit.