PROJECT REPORT

ON

COURSES

SUBMITTED TO

DEPARTMENT OF COMPUTER SCIENCE

UNDER THE SUPERVISION OF

DR. AMANDEEP KAUR

Submitted By:

Paras Sanserwal , Paras Vashist , Piyush

2210992021 2210992022 2210992038

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CHITKARA UNIVERSITY
CHANDIGARH-PATIALA NATIONAL HIGHWAY, RAJPURA, DISTT. PATIALA, PUNJAB, INDIA

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DECLARATION

We hereby declare that the courses submitted as part of Bachelor's degree in CSE, at Chitkara University, Punjab, is an authentic record of our own work carried out under the supervision of Dr. Amandeep Kaur.

Signature(s):

Name: Paras sanserwal
Roll No: 2210992021

Name: Paras Vashist
Roll No: 2210992022

Name: Piyush
Roll No: 2210992038

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HISTORY OF PYTHON

Python is a widely-used general-purpose, high-level programming language. It was initially designed by Guido van Rossum in 1991 and developed by Python Software Foundation. It was mainly developed for emphasis on code readability, and its syntax allows programmers to express concepts in fewer lines of code.

The language was finally released in 1991. When it was released, it used a lot fewer codes to express the concepts, when we compare it with Java, C++ & C. Its design philosophy was quite good too. Its main objective is to provide code readability and advanced developer productivity. When it was released it had more than enough capability to provide classes with inheritance, several core data types exception handling and functions.

Python has come a long way to become the most popular coding language in the world. Python has just turned 30 and just recently at pycon22(python conference) a new feature was released by Anaconda foundation it's known as py script with this now python can be written and run in the browser like javascript which was previously not possible.

Python 3.10.4 is the latest stable version.

Python has vast libraries for various fields such as Machine Learning (Numpy, Pandas, Matplotlib), Artificial intelligence (Pytorch, TensorFlow), and Game development (Pygame,Pyglet).

In this python project, we require a random module.

Tabulate Module

Tabulate is an open-source python package/module which is used to print tabular data in nicely formatted tables. It is easy to use and contains a variety of formatting functions.

INTRODUCTION OF PROJECT

This is a simple score card program which uses a Tabulate module for generating the table in the project. Data in the managed way is need of everybody so that to understand it quickly. The objective of this project is to maintain the data of their scores and percentages in the form of tables to provide ease of access to that data.

In this program user have to first specify for how many students he/she wants to store data then name of the student then corresponding marks as shown in screen then after typing all marks then another student name and it again asks for marks as previously asked and the code will goes on till it covers the number of student that user defined in starting.

There are steps followed:

- **Importing Module**
- **Ask input from user**
- **Generate Table with data**

1.Importing Module:

import Tabulate module

2.Ask input from user:

3.Generate Password in output window:

Generate a Table with data of n number of students that user defined with all data

Program Code

```
import os
from tabulate import tabulate
count=0
data = []
col_names = ["Sr No.","Name","MCP","BEE","English","Python","Total Marks","Percent","Result"]
print()
n=int(input("Number of student for which you want data :"))
for i in range(1,n+1):
    count=0
    sr=i
    name=input()
    mcp=int(input("MCP Marks    : "))
    if(mcp<35):
        count=count+1
    print()
    eng=int(input("English Marks  : "))
    if(eng<35):
        count=count+1
    print()
    bee=int(input("BEE Marks  : "))
    if(bee<35):
        count=count+1
    print()
    python=int(input("Python Marks: "))
    if(python<35):
        count=count+1
    if(count>0):
        Result="Fail"
    else:
        Result="Pass"
    Total=mcp+bee+eng+python
    percentage=(Total/400)*100
    print()
    print("Total marks are:",Total)
    print()
    data_1=[sr,name,mcp,bee,eng,python,Total,percentage,Result]
    for j in range(i,i+1,1):
        data.append(data_1)
print("Class:12")
print("                            SCORE CARD")
print()
print(tabulate(data, headers=col_names))
```

Output Window

```
Number of student for which you want data :2
Paras
MCP Marks    : 45

English Marks  : 43

BEE Marks  : 66

Python Marks: 77

Total marks are: 231

Vansh
MCP Marks    : 45

English Marks  : 99

BEE Marks  : 65

Python Marks: 68

Total marks are: 277

Class:12
                          SCORE CARD

  Sr No.  Name      MCP    BEE    English    Python    Total Marks    Percent  Result
--------  ------  -----  -----  ---------  --------  -------------  ---------  --------
       1  Paras      45     66         43        77            231      57.75  Pass
       2  Vansh      45     65         99        68            277      69.25  Pass
```

CONCLUSION

After doing this python project, we got to know how to import modules and how to use Tabulate module and more about tables and string.