PERCENTAGE MANAGEMENT SYSTEMS

Class	CODING
Materials	
Property	LOOPS AND LOGIC, PYTHON, TEACHERS HELPER
Reviewed	☐
Type	

INTRODUCTION

- This project is based on pecentage calculator .
- In this we have python language for solving the problems .
- In this documentation you will explore every single method which you can follow in order to create and percdentage management system .

MODULES USED

- Here we have used xlsxwriter module in python
- This module is used to write , read and update the excel or csv files via python programming language .

HOW TO INSTALL THE MODULE

- Go in the cmd pannel .
- paste the below wriiten command in order to download it .
    - Make sure you have pip install in order to download the external modules .

```
pip install XlsxWriter
```

- After wriiting this go to the code editor .
- If you do not have one then you can download .
    - Sublime text .
    - Vs code .
    - Pycharm.

- I am doing in VS code .
- After creating the file write down the below written code on the top .

```
import xlswriter
```

- By this the module is successfully imported in your code base .

PROCESS OR WORKING

- Now at first we will initialize the new workbook and in it a new worksheet by writing the following code .

```
book = xlsxwriter.Workbook('percentage.xlsx')
sheet = book.add_worksheet()
row = 4
column = 7
```

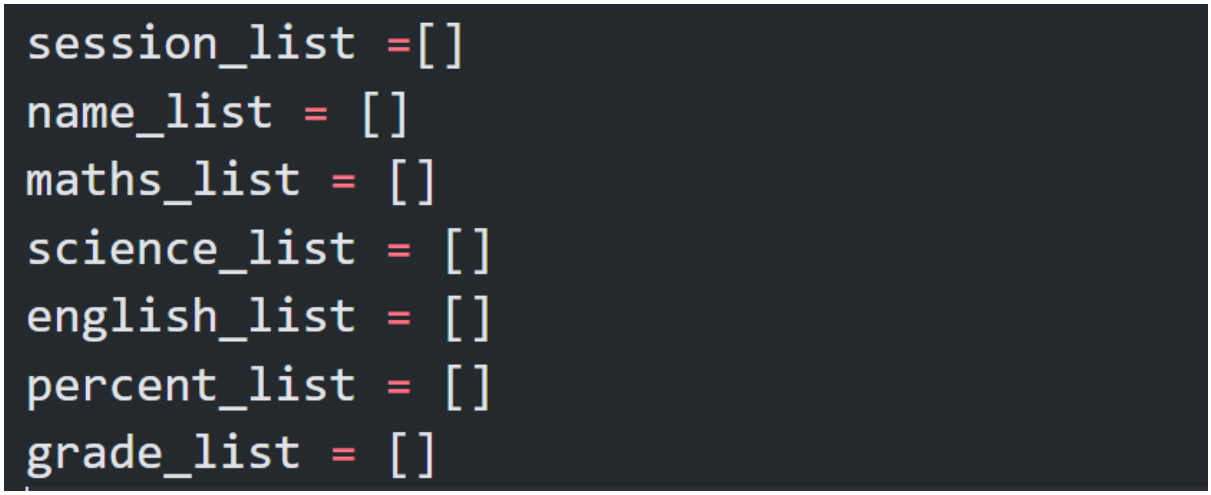
```
book = xlsxwriter.Workbook('percentage.xlsx')
sheet = book.add_worksheet()
row = 4
column = 7
```

- Now we will take the input of number of students for which we are calculating an percentage and grade .

```
number_students = int(input("Please enter number of students\n"))
```

```
number_students = int(input("Please enter number of students\n"))
```

- Now we will initialize some of the lists in order to enter the data in the excel file .



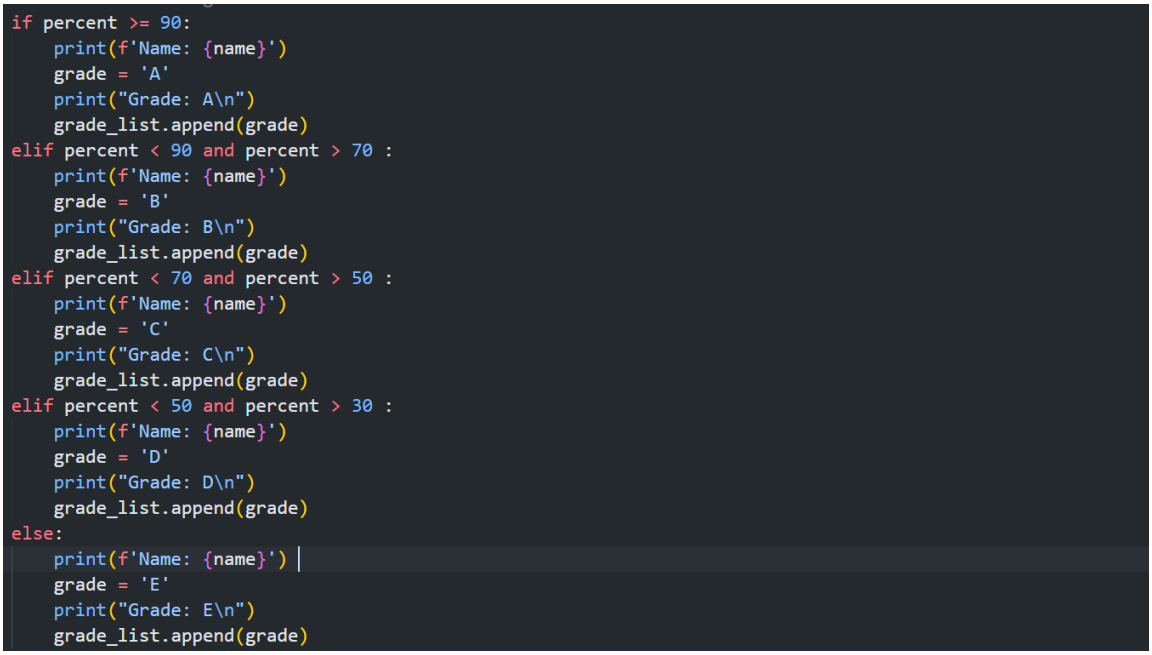

```
session_list =[]
name_list = []
maths_list = []
science_list = []
english_list = []
percent_list = []
grade_list = []
```

- Now we will initialize an for loop in python in order to start the process of data entering based on the number of students for which we have seten the range .
- Once the condition or range exceeds the loop will be breaked and we will get our desired worksheet in no time .
- so here name , maths , science , english , percent , grade are the string quantites .
- where as nameli , mathsli , scienceli , percentli , gradeli are int quantites which we have created sepratly in order to calculate the percantage .
- Now after calculation of percentage by using the below formula and code we will store the values in rows , columns and till this the code will look like this .

```
for marks in range(0,number_students):
    name = input("Please enter your name\n")
    name_list.append(name)
    maths = (input("Please enter maths marks\n"))
    mathsli = int(maths)
    maths_list.append(maths)
    science =(input("Please enter science marks\n"))
    scienceli = int(science)
    science_list.append(science)
    english =(input("Please enter english marks\n"))
    englishli = int(english)
    english_list.append(english)
    #code for calculation of precentage
    percent = (mathsli + scienceli + englishli)/3
    percentli = int((mathsli + scienceli + englishli)/3)
    percent_list.append(percentli)
```

```
for marks in range(0,number_students):
    name = input("Please enter your name\n")
    name_list.append(name)
    maths = (input("Please enter maths marks\n"))
    mathsli = int(maths)
    maths_list.append(maths)
    science =(input("Please enter science marks\n"))
    scienceli = int(science)
    science_list.append(science)
    english =(input("Please enter english marks\n"))
    englishli = int(english)
    english_list.append(english)
    #code for calculation of precentage
    percent = (mathsli + scienceli + englishli)/3
    percentli = int((mathsli + scienceli + englishli)/3)
    percent_list.append(percentli)
```

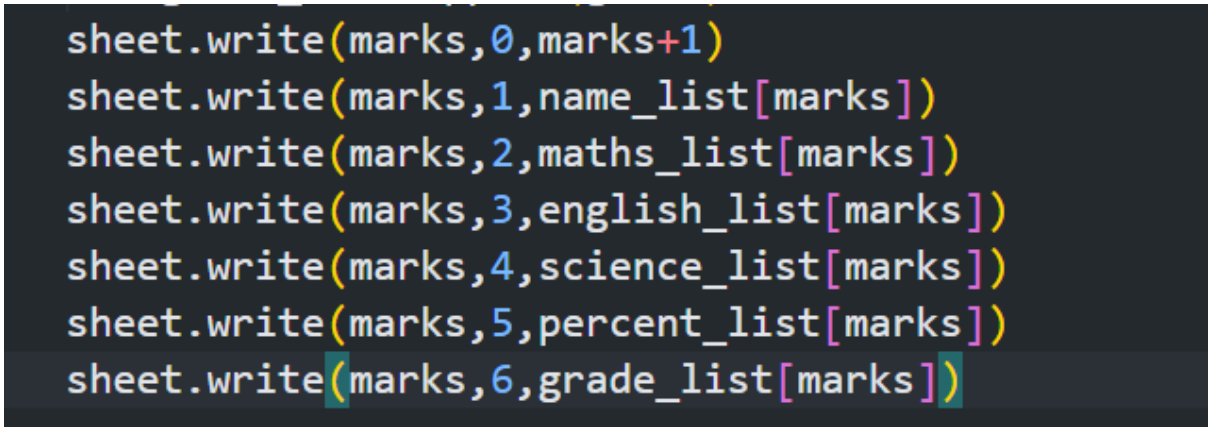
- Now we will use the if-else in order to calculate the grading which will look like this .



```
if percent >= 90:
    print(f'Name: {name}')
    grade = 'A'
    print("Grade: A\n")
    grade_list.append(grade)
elif percent < 90 and percent > 70 :
    print(f'Name: {name}')
    grade = 'B'
    print("Grade: B\n")
    grade_list.append(grade)
elif percent < 70 and percent > 50 :
    print(f'Name: {name}')
    grade = 'C'
    print("Grade: C\n")
    grade_list.append(grade)
elif percent < 50 and percent > 30 :
    print(f'Name: {name}')
    grade = 'D'
    print("Grade: D\n")
    grade_list.append(grade)
else:
    print(f'Name: {name}')
    grade = 'E'
    print("Grade: E\n")
    grade_list.append(grade)
```

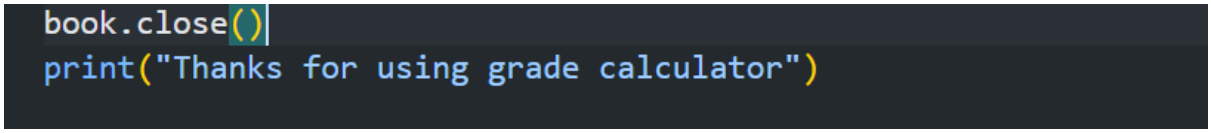
```
if percent >= 90:
        print(f'Name: {name}')
        grade = 'A'
        print("Grade: A\n")
        grade_list.append(grade)
    elif percent < 90 and percent > 70 :
        print(f'Name: {name}')
        grade = 'B'
        print("Grade: B\n")
        grade_list.append(grade)
    elif percent < 70 and percent > 50 :
        print(f'Name: {name}')
        grade = 'C'
        print("Grade: C\n")
        grade_list.append(grade)
    elif percent < 50 and percent > 30 :
        print(f'Name: {name}')
        grade = 'D'
        print("Grade: D\n")
        grade_list.append(grade)
    else:
        print(f'Name: {name}')
        grade = 'E'
        print("Grade: E\n")
        grade_list.append(grade)
```

- Now we will use sheet.write() in order to write the data in the initialized excel file .




```
sheet.write(marks,0,marks+1)
    sheet.write(marks,1,name_list[marks])
    sheet.write(marks,2,maths_list[marks])
    sheet.write(marks,3,english_list[marks])
    sheet.write(marks,4,science_list[marks])
    sheet.write(marks,5,percent_list[marks])
    sheet.write(marks,6,grade_list[marks])
```

- After then after the closing of the loop we will use the command book.close()
- This will close the book and will save it .
- Then we will print the greetings like "Thanks for using"




```
#greeting messages
book.close()
print("Thanks for using grade calculator")
```

FULL CODE IS AVAILABLE HERE

```
import xlsxwriter
#actual code

#creating excel book
book = xlsxwriter.Workbook('percentage.xlsx')
sheet = book.add_worksheet()
row = 4
column = 7
```

```
#entering number of students
number_students = int(input("Please enter number of students\n"))
#Marks entering
session_list =[]
name_list = []
maths_list = []
science_list = []
english_list = []
percent_list = []
grade_list = []

for marks in range(0,number_students):
    name = input("Please enter your name\n")
    name_list.append(name)
    maths = (input("Please enter maths marks\n"))
    mathsli = int(maths)
    maths_list.append(maths)
    science =(input("Please enter science marks\n"))
    scienceli = int(science)
    science_list.append(science)
    english =(input("Please enter english marks\n"))
    englishli = int(english)
    english_list.append(english)
    #code for calculation of precentage
    percent = (mathsli + scienceli + englishli)/3
    percentli = int((mathsli + scienceli + englishli)/3)
    percent_list.append(percentli)
    #Condition checking
    if percent >= 90:
        print(f'Name: {name}')
        grade = 'A'
        print("Grade: A\n")
        grade_list.append(grade)
    elif percent < 90 and percent > 70 :
        print(f'Name: {name}')
        grade = 'B'
        print("Grade: B\n")
        grade_list.append(grade)
    elif percent < 70 and percent > 50 :
        print(f'Name: {name}')
        grade = 'C'
        print("Grade: C\n")
        grade_list.append(grade)
    elif percent < 50 and percent > 30 :
        print(f'Name: {name}')
        grade = 'D'
        print("Grade: D\n")
        grade_list.append(grade)
    else:
        print(f'Name: {name}')
        grade = 'E'
        print("Grade: E\n")
        grade_list.append(grade)
    sheet.write(marks,0,marks+1)
    sheet.write(marks,1,name_list[marks])
    sheet.write(marks,2,maths_list[marks])
    sheet.write(marks,3,english_list[marks])
    sheet.write(marks,4,science_list[marks])
```

```
    sheet.write(marks,5,percent_list[marks])
    sheet.write(marks,6,grade_list[marks])

#greeting messages
book.close()
print("Thanks for using grade calculator")
```
