import sys

from student import student

from password import password

#STEP1:welcome message

print(" Welcome to Humber College")

print()

#STEP2:password input and check

attempt=3

while 1<=attempt<=3:

print()

passw=password()

passw.getpw()

passw.validpw()

if passw.validpw():

print("Login Successful")

print()

break

else:

print("Invalid password, Try again \nWarning!Attempts left: ",attempt-1)

attempt -=1

if attempt<1:

print("Sorry,no more attempts possible")

sys.exit()

#STEP3:enter number of students

def main():

attempt=1

while attempt<=3:

stu=int(input("Warning! Only three attempts in total possible \nEnter number of students(Between 1 to 50): "))

if not 1<=stu<=50:

print("Invalid input")

print()

attempt +=1

else:

print()

break

if attempt>3:

print("Sorry,No more attempts possible")

sys.exit()

#STEP4:enter names,scores of students and calculate gpa

nam=[]

tscore=[]

schl=[]

print()

for i in range(0,stu):

apply=student()

nam.append(apply.name())

apply.getscore()

tscore.append(apply.setgpa())

schl.append(apply.setschool())

print()

print()

#STEP5:print report 1

print("Report 1")

print(format("Student name",'25s'),end=" ")

print(format("School Name",'25s'))

for i in range(len(nam)):

print(format(nam[i],'25s'),end=" ")

print(format(schl[i],'25s'))

print()

#STEP6:print report 2&3

count=0

for i in range(len(schl)):

if schl[i] not in("Rejected"):

count +=1

eng=schl.count("School of engineering")

bus=schl.count("School of business")

law=schl.count("School of law")

rej=schl.count("Rejected")

print("Report 2")

print("Total number of students accepted to Humber College is: ",count)

print("Total number of students accepted into School of engineering is: ",eng)

print("Total number of students accepted into School of business is: ",bus)

print("Total number of students accepted into School of law is: ",law)

print()

print("Report 3")

print("Total number of students rejected by Humber College is: ",rej)

print()

#STEP7:print report 4

sumeng=0

sumbus=0

sumlaw=0

for i in range(len(schl)):

if schl[i] in("School of engineering"):

sumeng +=tscore[i]

elif schl[i] in("School of business"):

sumbus +=tscore[i]

elif schl[i] in("School of law"):

sumlaw +=tscore[i]

print("Report 4")

if eng!=0:

print("Average GPA of School of engineering is: ",sumeng/eng)

else:

print("No students admitted in School of engineering")

if bus!=0:

print("Average GPA of School of business is: ",sumbus/bus)

else:

print("No students admitted in School of business")

if law!=0:

print("Average GPA of School of law is: ",sumlaw/law)

else:

print("No students admitted in School of law")

main()

print()

print("THE END \nThank you for your input!")

class student:

def \_\_init\_\_(self):

self.no=None

def name(self):

n=str(input("Enter name of STUDENT: "))

return n

def getscore(self):

self.m=float(input("Enter Math score of STUDENT(Credit hours=4): "))

self.s=float(input("Enter Science score of STUDENT(Credit hours=5): "))

self.l=float(input("Enter Language score of STUDENT(Credit hours=4): "))

self.d=float(input("Enter Drama score of STUDENT(Credit hours=3): "))

self.mu=float(input("Enter Music score of STUDENT(Credit hours=2): "))

self.b=float(input("Enter Biology score of STUDENT(Credit hours=4): "))

return self.m,self.s,self.l,self.d,self.mu,self.b

def setgpa(self):

wsum=self.m\*4 + self.s\*5 + self.l\*4 + self.d\*3 + self.mu\*2 + self.b\*4

totalcredits=22

self.gpa=wsum/totalcredits

return self.gpa

def setschool(self):

if 90 <= self.gpa <=100:

sch="School of engineering"

elif 80<= self.gpa <90:

sch="School of business"

elif 70 <= self.gpa <80:

sch="School of law"

else:

sch="Rejected"

return sch

class password:

def \_\_init\_\_(self):

self.no=None

def getpw(self):

print("Password Requirements: \nAtleast 10 characters \nAtleast one uppercase \nAtleast 2 to 3 numbers \nAtleast 1 special character")

self.pw=str(input("ENTER LOGIN PASSWORD: "))

def validpw(self):

upper=0

num=0

spl=0

for i in self.pw:

if i.isupper():

upper += 1

if i.isdigit():

num +=1

if not i.isalnum():

spl +=1

if len(self.pw)>=10 and upper>=1 and spl>=1 and num in(2,3):

return True

else:

return False