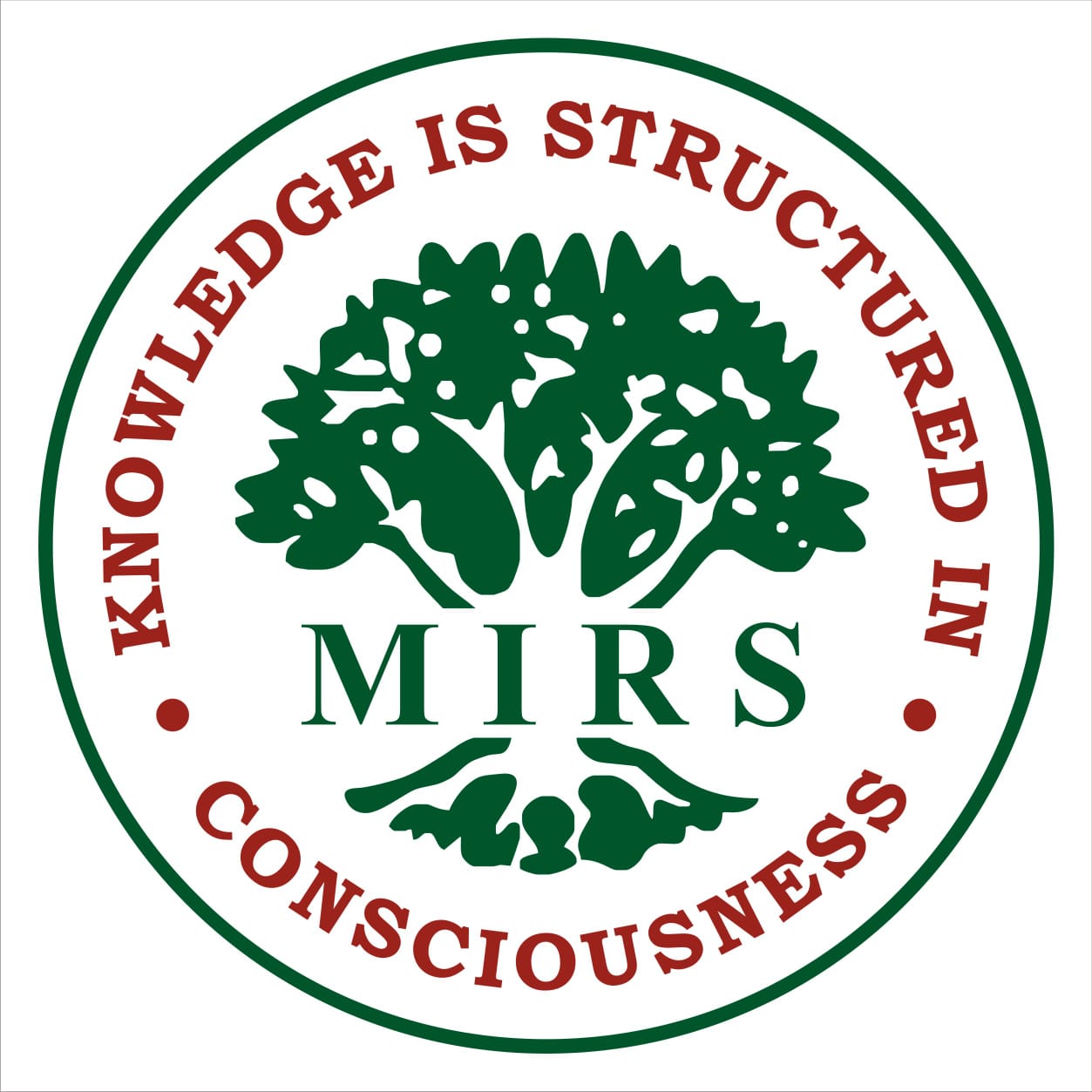
MAHARISHI INTERNATIONAL RESIDENTIAL SCHOOL



**COMPUTER SCIENCE (083)**

**PROJECT**

**2020-2021**

**TOPIC:**

**EXAMINATION MODULE** **SYSTEM**

**SUBMITTED BY : %name%**

**CLASS AND SECTION : %class% - %section%**

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**INTRODUCTION TO PYTHON**

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms, and can be freely distributed.

**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.



**INTRODUCTION TO THE PROJECT**

The Examination Module System software is an ERP software used in government and private educational institutions in the senior secondary level. This software stores details of students and their marks details in different subjects. We can check the report card of the student and perform marks analysis by graphical method. This software helps us to create profile for students, update marks and attendance details as per the requirement.

**SYSTEM REQUIREMENTS**

**HARDWARE REQUIREMENT:**

* Printer- to print the required documents of the project.
* Compact Drive
* Proccesor: Pentium III and above
* RAM: 256 MB(minimum)
* Hard-Disk : 20 GB(minimum)

**SOFTWARE REQUIREMENT:**

* Windows 7 or higher
* My-SQL server 5.5 or higher (as backend)
* Python idle 3.6 or higher or spyder (as frontend).
* Microsoft Word 2010 or higher for documentation.

**BACKEND DETAILS**

**Database Name: EXAM**

**Code:**

Create Database Exam;

Use Exam;

**Table Name: STUDENT**

**Attributes:**

adm\_no int(6) Primary Key

name varchar(40)

class int(2)

section char(1)

**Code:**

CREATE TABLE STUDENT (

adm\_no INT(6) PRIMARY KEY,

Name VARCHAR(40),

class int(2),

section char(1));

**Table Name: RESULT**

**Attributes:**

Adm\_no int(6)

exam\_name varchar(30)

sub1 int(3)

sub2 int(3)

sub3 int(3)

sub4 int(3)

sub5 int(3)

total int(3)

percentage int(5)

attendance int(5)

grade char(1)

remarks varchar(50)

**Code:**

CREATE TABLE RESULT (

Adm\_no int(6) PRIMARY KEY,

exam\_name varchar(30),

sub1 int(3),

sub2 int(3),

sub3 int(3),

sub4 int(3),

sub5 int(3),

total int(3),

percentage int(5),

attendance int(5),

grade char(1),

remarks varchar(50));

**FRONTEND DETAILS**

**PROGRAM CODE**

import sys

import matplotlib.pyplot as plt

import mysql.connector

mycon=mysql.connector.connect(host='localhost',user='root', password='abhisek',database='exam')

mycur=mycon.cursor()

def Student\_Profile():

sql="Insert into student(adm\_no,name,class,section)values(%s,%s,%s,%s)"

print('\nPLEASE PROVIDE THE REQUIRED INFORMATION\n')

ad=input('\nENTER THE ADMISSION NUMBER TO REGISTER FOR EXAM:')

nm=input('\nENTER THE STUDENT NAME:')

cls=int(input('\nENTER THE CLASS(11/12):'))

sec=input('\nENTER THE SECTION(A-D):')

value=(ad,nm,cls,sec)

try:

mycur.execute(sql,value)

print(nm,'ADDED SUCCESSFULLY TO EXAM MODULE')

mycon.commit()

except:

print('UNABLE TO INSERT!!!!!')

def Edit\_Profile():

sql="Update student set section=%s where adm\_no=%s";

ph=input('\nENTER THE ADMISSION NUMBER WHOSE SECTION TO MODIFY:')

nm=input('\nENTER THE NEW SECTION(A-D):')

value=(nm,ph)

try:

mycur.execute(sql,value)

mycon.commit()

print('RECORD UPDATED SUCCESSFULLY')

except:

print('UNABLE TO UPDATE SECTION!!!!')

def Remove\_Profile():

ph=input('\nENTER THE ADMISSION NUMBER TO DELETE:')

sql='Delete from student where Adm\_no=%s'

value=(ph,)

try:

mycur.execute(sql,value)

mycon.commit()

print('RECORD DELETED SUCCESSFULLY')

except:

mycon.rollback()

print('UNABLE TO DELETE RECORD!!!')

def Record\_Entry():

sql="Insert into result(adm\_no,exam\_name,sub1,sub2,sub3,sub4,sub5,total,percentage,attendance,grade,remarks)values(%s,%s,%s,%s,%s,%s,%s,%s,%s,%s,%s,%s)"

print('\nPLEASE PROVIDE THE REQUIRED INFORMATION\n')

ad=int(input('\nENTER THE ADMISSION NUMBER TO ENTER RECORD:'))

nm=input('\nENTER THE EXAM NAME:')

sub1=int(input('ENTER MARKS IN SUBJECT 1(MAX:100):'))

sub2=int(input('ENTER MARKS IN SUBJECT 2(MAX:100):'))

sub3=int(input('ENTER MARKS IN SUBJECT 3(MAX:100):'))

sub4=int(input('ENTER MARKS IN SUBJECT 4(MAX:100):'))

sub5=int(input('ENTER MARKS IN SUBJECT 5(MAX:100):'))

total=sub1+sub2+sub3+sub4+sub5

per=total//5

wrkday=int(input('ENTER TOTAL NUMBER OF WORKING DAYS:'))

present=int(input('ENTER NO OF DAYS PRESENT:'))

att=present/wrkday\*100

att=int(att)

if(per>=90):

g='A'

rem='EXCELLENT PERFORMANCE!!'

elif(per>=75 and per<90):

g='B'

rem='VERY GOOD PERFORMANCE!!'

elif(per>=55 and per<=75):

g='C'

rem='SATISFACTORY PERFORMANCE!!'

elif(per>=35 and per<55):

g='D'

rem='AVERAGE PERFORMANCE!!'

else:

g='E'

rem='SCOPE FOR IMPROVEMENT!!'

value=(ad,nm,sub1,sub2,sub3,sub4,sub5,total,per,att,g,rem)

try:

mycur.execute(sql,value)

print('RECORD ADDED SUCCESSFULLY TO EXAM MODULE')

mycon.commit()

except:

print('UNABLE TO INSERT!!!!!')

def Report\_Card():

ad=int(input('\nENTER THE ADMISSION NUMBER TO SEARCH:'))

sql1='Select \* from student where adm\_no=%s'

value=(ad,)

mycur.execute(sql1,value)

rec1=mycur.fetchone()

if(rec1!=None):

adm=rec1[0]

name=rec1[1]

cls=rec1[2]

sec=rec1[3]

sql2='Select \* from result where adm\_no=%s'

value=(ad,)

mycur.execute(sql2,value)

rec2=mycur.fetchone()

if(rec2!=None):

adm=rec2[0]

exname=rec2[1]

sub1=rec2[2]

sub2=rec2[3]

sub3=rec2[4]

sub4=rec2[5]

sub5=rec2[6]

total=rec2[7]

per=rec2[8]

att=rec2[9]

g=rec2[10]

rem=rec2[11]

if(rec1==None and rec2==None):

print('WRONG ADMISSION NUMBER GIVEN!!!!!!')

else:

print('\n\n--------REPORT CARD OF',name,'----------\n\n')

print('\nCLASS-',cls,'SECTION-',sec,'\n')

print('\n------------------------------\n')

print('\nRESULT OF',exname,'\n')

print('\n------------------------------\n')

if(sec=='A'):

print('\n ENGLISH : ',sub1)

print('\n HISTORY : ',sub2)

print('\n POL. SC : ',sub3)

print('\n ECONOMICS : ',sub4)

print('\n GEOGRAPHY : ',sub5)

print('\n TOTAL : ',total)

print('\n PERCENTAGE : ',per)

print('\n ATTENDANCE : ',att,'%')

print('\n GRADE : ',g)

print('\n REMAKS : ',rem)

elif(sec=='B'):

print('\n ENGLISH : ',sub1)

print('\n ACCOUNTANCY: ',sub2)

print('\n B.STUDIES : ',sub3)

print('\n ECONOMICS : ',sub4)

print('\n INFO.PRAC : ',sub5)

print('\n TOTAL : ',total)

print('\n PERCENTAGE : ',per)

print('\n ATTENDANCE : ',att,'%')

print('\n GRADE : ',g)

print('\n REMAKS : ',rem)

elif(sec=='C'):

print('\n ENGLISH : ',sub1)

print('\n PHYSICS : ',sub2)

print('\n COMP.SC : ',sub3)

print('\n CHEMISTRY : ',sub4)

print('\n MATHEMATICS: ',sub5)

print('\n TOTAL : ',total)

print('\n PERCENTAGE : ',per)

print('\n ATTENDANCE : ',att,'%')

print('\n GRADE : ',g)

print('\n REMAKS : ',rem)

elif(sec=='D'):

print('\n ENGLISH : ',sub1)

print('\n PHYSICS : ',sub2)

print('\n BIO.SC : ',sub3)

print('\n CHEMISTRY : ',sub4)

print('\n MATHEMATICS: ',sub5)

print('\n TOTAL : ',total)

print('\n PERCENTAGE : ',per)

print('\n ATTENDANCE : ',att,'%')

print('\n GRADE : ',g)

print('\n REMAKS : ',rem)

def Remove\_Record():

ph=input('\nENTER THE ADMISSION NUMBER TO DELETE:')

sql='Delete from RESULT where Adm\_no=%s'

value=(ph,)

try:

mycur.execute(sql,value)

mycon.commit()

print('RECORD DELETED SUCCESSFULLY')

except:

mycon.rollback()

print('UNABLE TO DELETE RECORD!!!')

def Graph():

ad=int(input('\nENTER THE ADMISSION NUMBER TO SEARCH:'))

sql1='Select \* from result where adm\_no=%s'

value=(ad,)

mycur.execute(sql1,value)

T=mycur.fetchone()

sql2='Select section from student where adm\_no=%s';

mycur.execute(sql2,value)

s=mycur.fetchone()

L=[T[2],T[3],T[4],T[5],T[6]]

sec=s[0]

if(sec=='A'):

sub1,sub2,sub3,sub4,sub5='English','History','Pol.Sc','Economics','Geography'

elif(sec=='B'):

sub1,sub2,sub3,sub4,sub5='English','Accountancy','B.Studies','Economics','Info.Practices'

elif(sec=='C'):

sub1,sub2,sub3,sub4,sub5='English','Physics','Computer Sc.','Chemistry','Mathematics'

elif(sec=='D'):

sub1,sub2,sub3,sub4,sub5='English','Physics','Biology','Chemistry','Mathematics'

sub=[sub1,sub2,sub3,sub4,sub5]

clr=('red','green','blue','orange','brown')

plt.bar(sub,L,color=clr)

plt.xlabel('Subjects')

plt.ylabel('Marks')

plt.title('Marks Analysis')

plt.show()

def Close():

print('\nTHANK YOU FOR USING THE APPLICATION')

sys.exit()

print('-----------WELCOME TO EXAMINATION MODULE SYSTEM FOR CLASS-XI & XII-------------\n\n')

while(True):

print('\n\nPRESS 1 TO CREATE A STUDENT PROFILE')

print('PRESS 2 TO EDIT A STUDENT PROFILE')

print('PRESS 3 TO DELETE A STUDENT PROFILE')

print('PRESS 4 FOR MARKS AND ATTENDANCE ENTRY')

print('PRESS 5 TO GENERATE REPORT CARD')

print('PRESS 6 TO DELETE MARKS DETAILS')

print('PRESS 7 TO PRODUCE A GRAPH PERFORMANCE')

print('PRESS 8 TO CLOSE THE APPLICATION')

choice=int(input('ENTER YOUR CHOICE : '))

if(choice==1):

Student\_Profile()

elif(choice==2):

Edit\_Profile()

elif(choice==3):

Remove\_Profile()

elif(choice==4):

Record\_Entry()

elif(choice==5):

Report\_Card()

elif(choice==6):

Remove\_Record()

elif(choice==7):

Graph()

elif(choice==8):

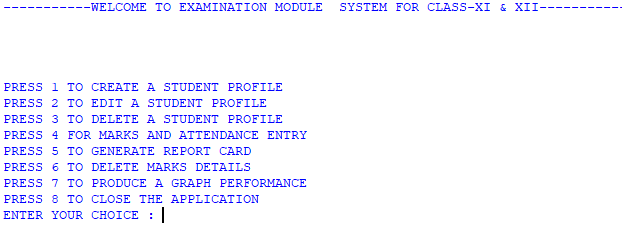
Close()

**MOTIVE**

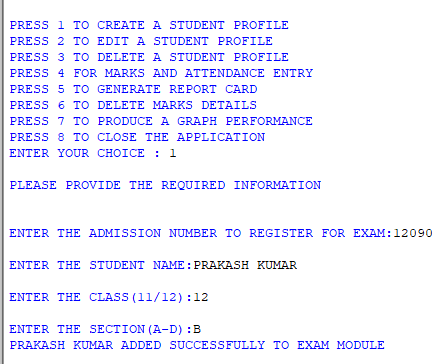
* To maintain the student profile, marks and attendance details of the students of class-XI and XII.
* To generate report card displaying the marks of a student in different subjects in a particular exam and represent the same by graphical analysis.
* Globalized usage.

**SCREEN SHOTS OF EXECUTION**

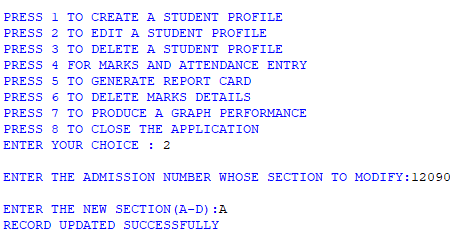
**MAIN MENU**



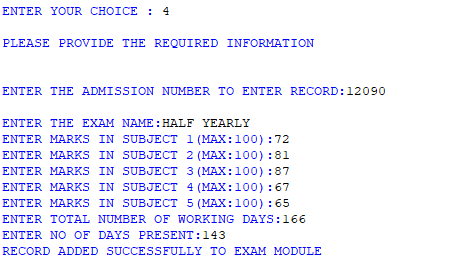
**CREATING STUDENT PROFILE**



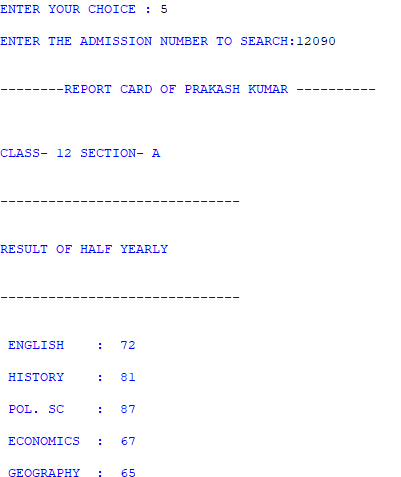
**EDITING STUDENT PROFILE**

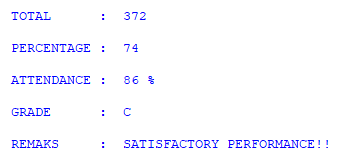


**MARKS AND ATTENDANCE ENTRY**

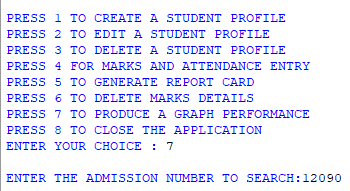


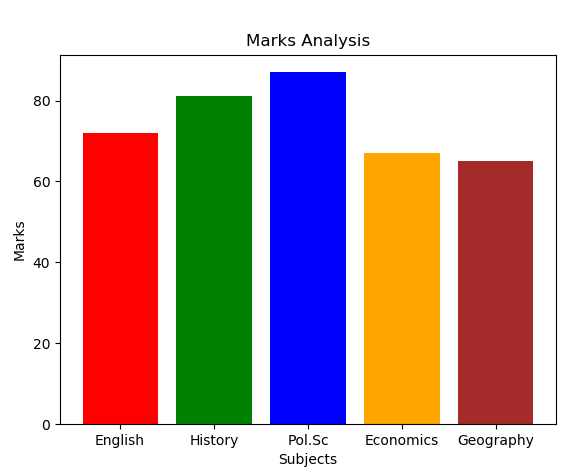
**GENERATING REPORT CARD**



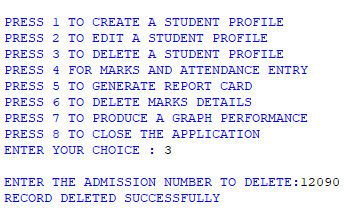


**PRODUCING GRAPH**





**DELETING STUDENTS PROFILE**



**BIBLIOGRAPHY**

**BOOKS:**

* COMPUTER SCIENCE WITH PYTHON- BY SUMITA ARORA
* COMPUTER SCIENCE WITH PYTHON-BY PREETI ARORA
* PYTHON COOKBOOK

**WEBSITES:**

* www.geeksforgeeks.org
* <https://docs.python.org/3/>
* [https://www.w3schools.com/python/](https://www.w3schools.com/python/python_strings.asp)

**LIMITATIONS**

* The Project has no provision to update marks after the report card is generated.
* The project does not incorporate the provision of producing the result of the entire class for a particular examination.
* The project is limited to the examination system of class-XI and XII and does not provide the yearly summary sheet report generation facility.