_____ PUBLIC SCHOOL

CITY

COMPUTER SCIENCE (083)

PROJECT

20XX-20XX

TOPIC:

EXAMINATION MODULE SYSTEM

GUIDED BY:- SWAROOP2SKY

SUBMITTED BY : YOUR NAME

CLASS AND SECTION : YOUR CLASS

ROLL NUMBER : ROLL NUMBER

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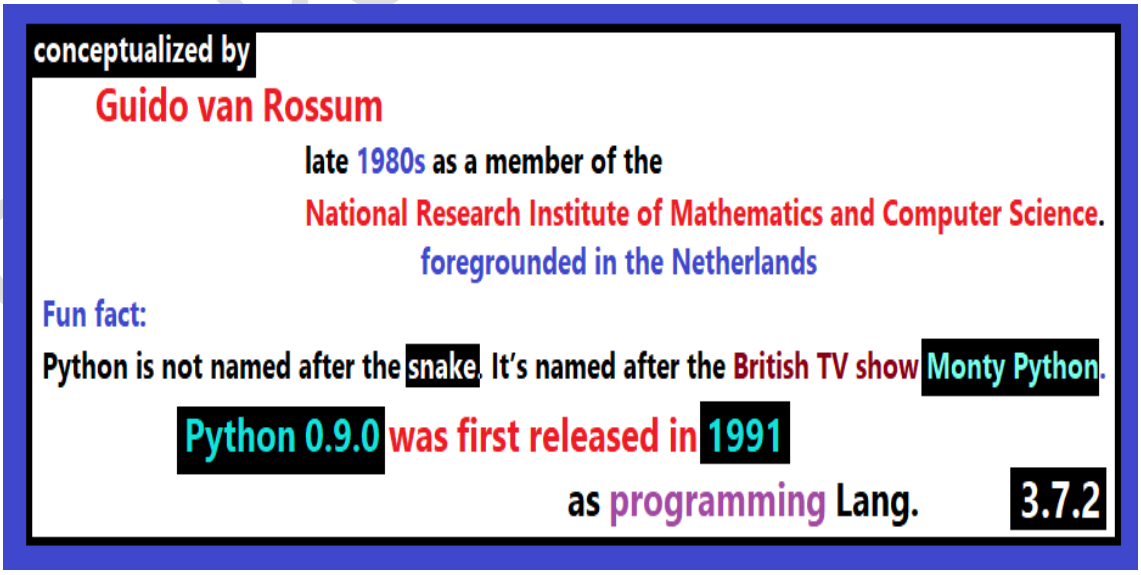
INTRODUCTION TO PYTHON

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.

ACKNOWLEDGEMENT

I thank my Computer Science teacher Swaroop2sky for guidance and support. I am also thankful to our principal Swaroop2sky. I would also thank to my parent for encouraging during the course of this project. Finally, I would like to thank CBSE for giving me this opportunity to undertake this project.

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',use
r='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,s
ub5,total,percentage,attendance,grade,remarks)va
lues(%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,a
    tt,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','Po
   l.Sc','Economics','Geography'
elif(sec=='B'):

   sub1,sub2,sub3,sub4,sub5='English','Accountanc
   y','B.Studies','Economics','Info.Practices'
elif(sec=='C'):

    sub1,sub2,sub3,sub4,sub5='English','Physics','C
    omputer Sc.','Chemistry','Mathematics'
elif(sec=='D'):
```

```
        sub1,sub2,sub3,sub4,sub5='English','Physics','B
        iology','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

```
----------WELCOME TO EXAMINATION MODULE  SYSTEM FOR CLASS-XI & XII----------


PRESS 1 TO CREATE A STUDENT PROFILE
PRESS 2 TO EDIT A STUDENT PROFILE
PRESS 3 TO DELETE A STUDENT PROFILE
PRESS 4 FOR MARKS AND ATTENDANCE ENTRY
PRESS 5 TO GENERATE REPORT CARD
PRESS 6 TO DELETE MARKS DETAILS
PRESS 7 TO PRODUCE A GRAPH PERFORMANCE
PRESS 8 TO CLOSE THE APPLICATION
ENTER YOUR CHOICE :
```

CREATING STUDENT PROFILE

```
PRESS 1 TO CREATE A STUDENT PROFILE
PRESS 2 TO EDIT A STUDENT PROFILE
PRESS 3 TO DELETE A STUDENT PROFILE
PRESS 4 FOR MARKS AND ATTENDANCE ENTRY
PRESS 5 TO GENERATE REPORT CARD
PRESS 6 TO DELETE MARKS DETAILS
PRESS 7 TO PRODUCE A GRAPH PERFORMANCE
PRESS 8 TO CLOSE THE APPLICATION
ENTER YOUR CHOICE : 1

PLEASE PROVIDE THE REQUIRED INFORMATION


ENTER THE ADMISSION NUMBER TO REGISTER FOR EXAM:12090

ENTER THE STUDENT NAME:PRAKASH KUMAR

ENTER THE CLASS(11/12):12

ENTER THE SECTION(A-D):B
PRAKASH KUMAR ADDED SUCCESSFULLY TO EXAM MODULE
```

EDITING STUDENT PROFILE

```
PRESS 1 TO CREATE A STUDENT PROFILE
PRESS 2 TO EDIT A STUDENT PROFILE
PRESS 3 TO DELETE A STUDENT PROFILE
PRESS 4 FOR MARKS AND ATTENDANCE ENTRY
PRESS 5 TO GENERATE REPORT CARD
PRESS 6 TO DELETE MARKS DETAILS
PRESS 7 TO PRODUCE A GRAPH PERFORMANCE
PRESS 8 TO CLOSE THE APPLICATION
ENTER YOUR CHOICE : 2

ENTER THE ADMISSION NUMBER WHOSE SECTION TO MODIFY:12090

ENTER THE NEW SECTION(A-D):A
RECORD UPDATED SUCCESSFULLY
```

MARKS AND ATTENDANCE ENTRY

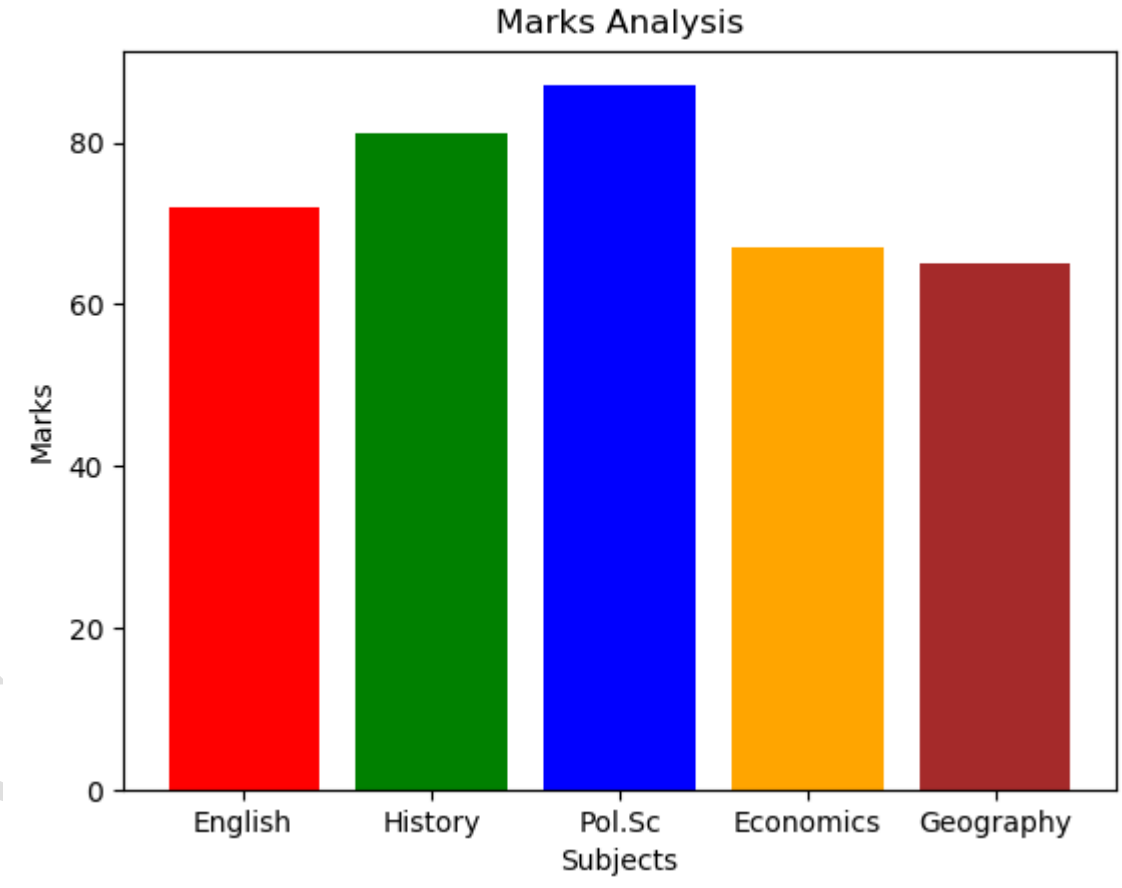
```
ENTER YOUR CHOICE : 4

PLEASE PROVIDE THE REQUIRED INFORMATION


ENTER THE ADMISSION NUMBER TO ENTER RECORD:12090

ENTER THE EXAM NAME:HALF YEARLY
ENTER MARKS IN SUBJECT 1(MAX:100):72
ENTER MARKS IN SUBJECT 2(MAX:100):81
ENTER MARKS IN SUBJECT 3(MAX:100):87
ENTER MARKS IN SUBJECT 4(MAX:100):67
ENTER MARKS IN SUBJECT 5(MAX:100):65
ENTER TOTAL NUMBER OF WORKING DAYS:166
ENTER NO OF DAYS PRESENT:143
RECORD ADDED SUCCESSFULLY TO EXAM MODULE
```

GENERATING REPORT CARD

```
ENTER YOUR CHOICE : 5
ENTER THE ADMISSION NUMBER TO SEARCH:12090

--------REPORT CARD OF PRAKASH KUMAR ----------

CLASS- 12 SECTION- A

------------------------------

RESULT OF HALF YEARLY

------------------------------

 ENGLISH     :  72
 HISTORY     :  81
 POL. SC     :  87
 ECONOMICS   :  67
 GEOGRAPHY   :  65
 TOTAL       :  372
 PERCENTAGE  :  74
 ATTENDANCE  :  86 %
 GRADE       :  C
 REMAKS      :  SATISFACTORY PERFORMANCE!!
```

PRODUCING GRAPH

```
PRESS 1 TO CREATE A STUDENT PROFILE
PRESS 2 TO EDIT A STUDENT PROFILE
PRESS 3 TO DELETE A STUDENT PROFILE
PRESS 4 FOR MARKS AND ATTENDANCE ENTRY
PRESS 5 TO GENERATE REPORT CARD
PRESS 6 TO DELETE MARKS DETAILS
PRESS 7 TO PRODUCE A GRAPH PERFORMANCE
PRESS 8 TO CLOSE THE APPLICATION
ENTER YOUR CHOICE : 7

ENTER THE ADMISSION NUMBER TO SEARCH:12090
```



DELETING STUDENTS PROFILE

```
PRESS 1 TO CREATE A STUDENT PROFILE
PRESS 2 TO EDIT A STUDENT PROFILE
PRESS 3 TO DELETE A STUDENT PROFILE
PRESS 4 FOR MARKS AND ATTENDANCE ENTRY
PRESS 5 TO GENERATE REPORT CARD
PRESS 6 TO DELETE MARKS DETAILS
PRESS 7 TO PRODUCE A GRAPH PERFORMANCE
PRESS 8 TO CLOSE THE APPLICATION
ENTER YOUR CHOICE : 3

ENTER THE ADMISSION NUMBER TO DELETE:12090
RECORD DELETED SUCCESSFULLY
```

BIBLIOGRAPHY

BOOKS:

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

WEBSITES:

- ✓www.geeksforgeeks.org
- ✓https://swaroop2sky.github.io
- ✓https://docs.python.org/3/
- ✓https://www.w3schools.com/python/

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.

CERTIFICATE

This is to certify that of class XII, _____ Public School, City_name has successfully completed his/her project in Computer Science Practical for the AISSCE as prescribed by CBSE in the year 20xx-20xx.

Roll No :

Sign. of Internal **Sign. of External**