# ***STUDENT INTERNAL MARK CALCULATION***

**CLASS:CSE A S1**

**Group No:9**

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# ABSTRACT

This is a simple project made using python. This project enables the teachers to calculate the internal marks of each student uniquely. The input are the marks of first & second series test and marks secured by the student for his extra activities like assignment and online aptitudes for each subject. The overall result would be the total internal marks secured by a student in each of his semester for each subject. This project makes the work of the teachers simple and can easily get the results.

# 1. INTRODUCTION

## 1.1 PROBLEM DEFINITION

The biggest challenge of a school or college office authority is to manage each and every students mark. In the existing scenario each student's marks are separately entered by their teachers first in a sheet of paper and then later an office staff copies the mark into a register. It is extremely tedious to search data from this registers and usually mark registers are kept separate from student registers, moreover there are every chance of entering wrong marks of the student. To overcome all the cons and disadvantages of the existing system, the proposed program is developed to make the entry and the retrieval of student data much easier. This is to calculate the total internal mark of each student uniquely. The teacher will enter the marks secured by each student. Then this entered data will store in a file that can be further used

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# 2. SYSTEM STUDY

## 2.1 EXISTING SYSTEM

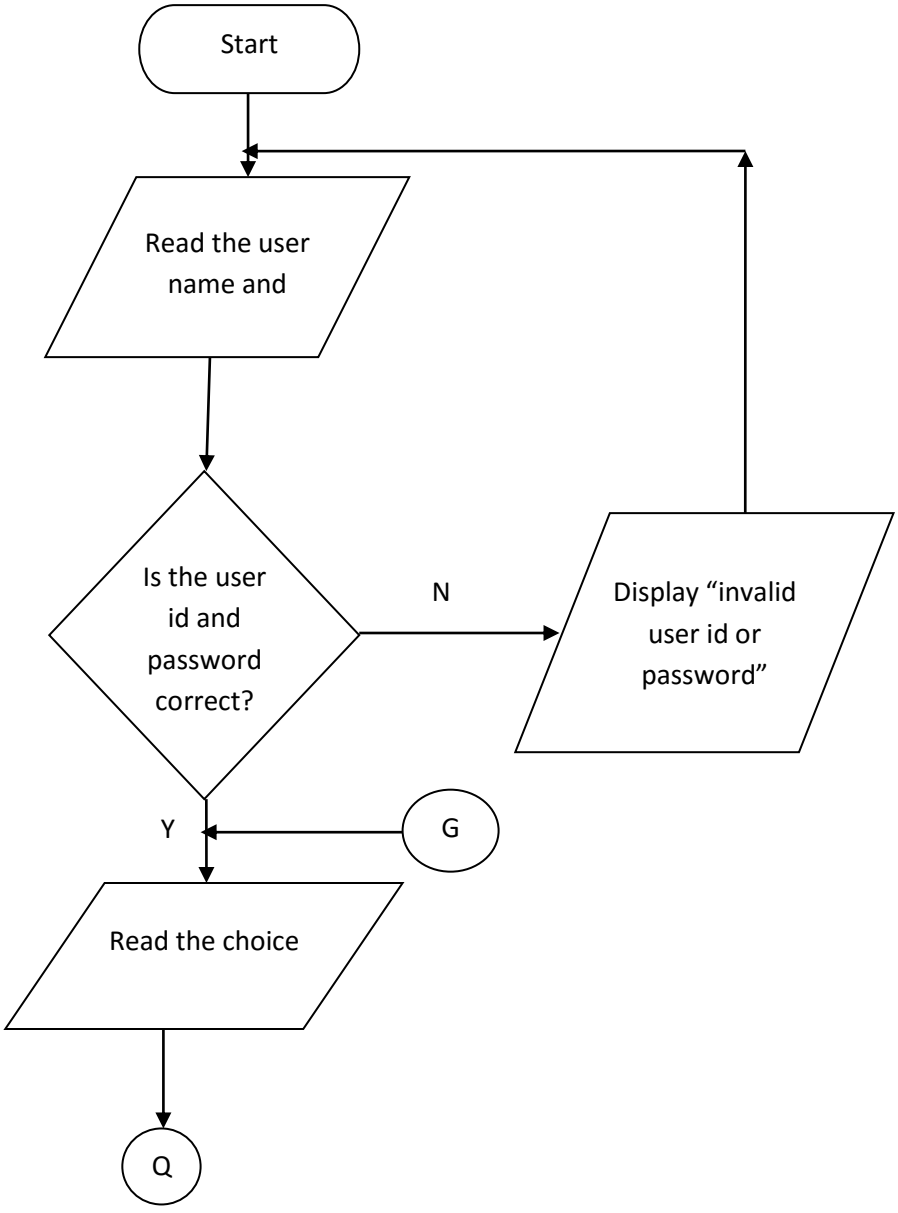
In Existing System, there are chances for data loss. All these processes consume more time and require more manual efforts. With the emergence of computers, generations have moved from pencils to pixels, gradually process of calculation are done in computer using excel. Here marks of students are fed into the computer and the calculations are done by computer itself. But the conversions of marks are done by the faculty itself which is a difficult and time consuming task. There is no centralized storage and thereby no facility for quick storage and retrieval of data. There is a chance of ambiguous data collection which will result in wastage of resources. In order to solve the above problem assessment emulator is being proposed.

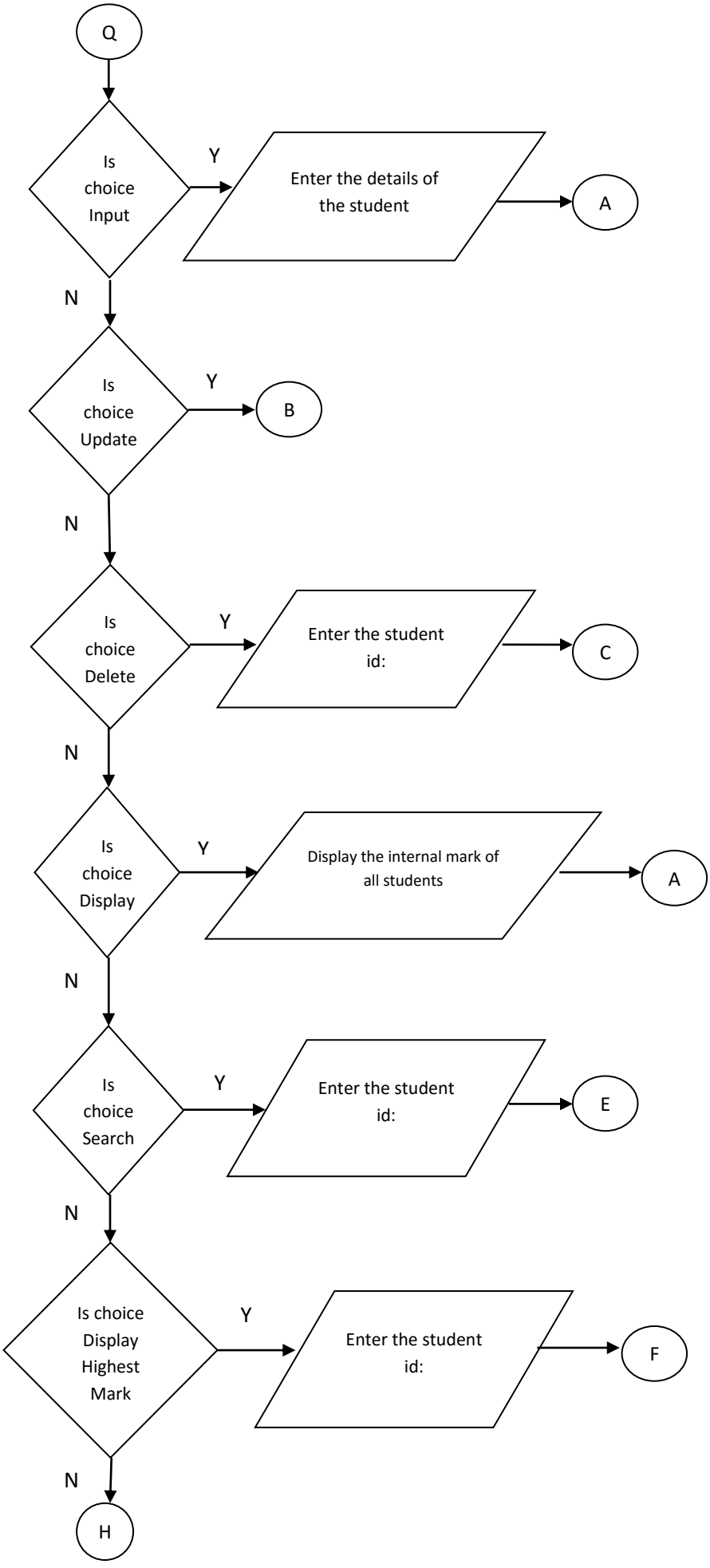
## 2.2 PROPOSED SYSTEM

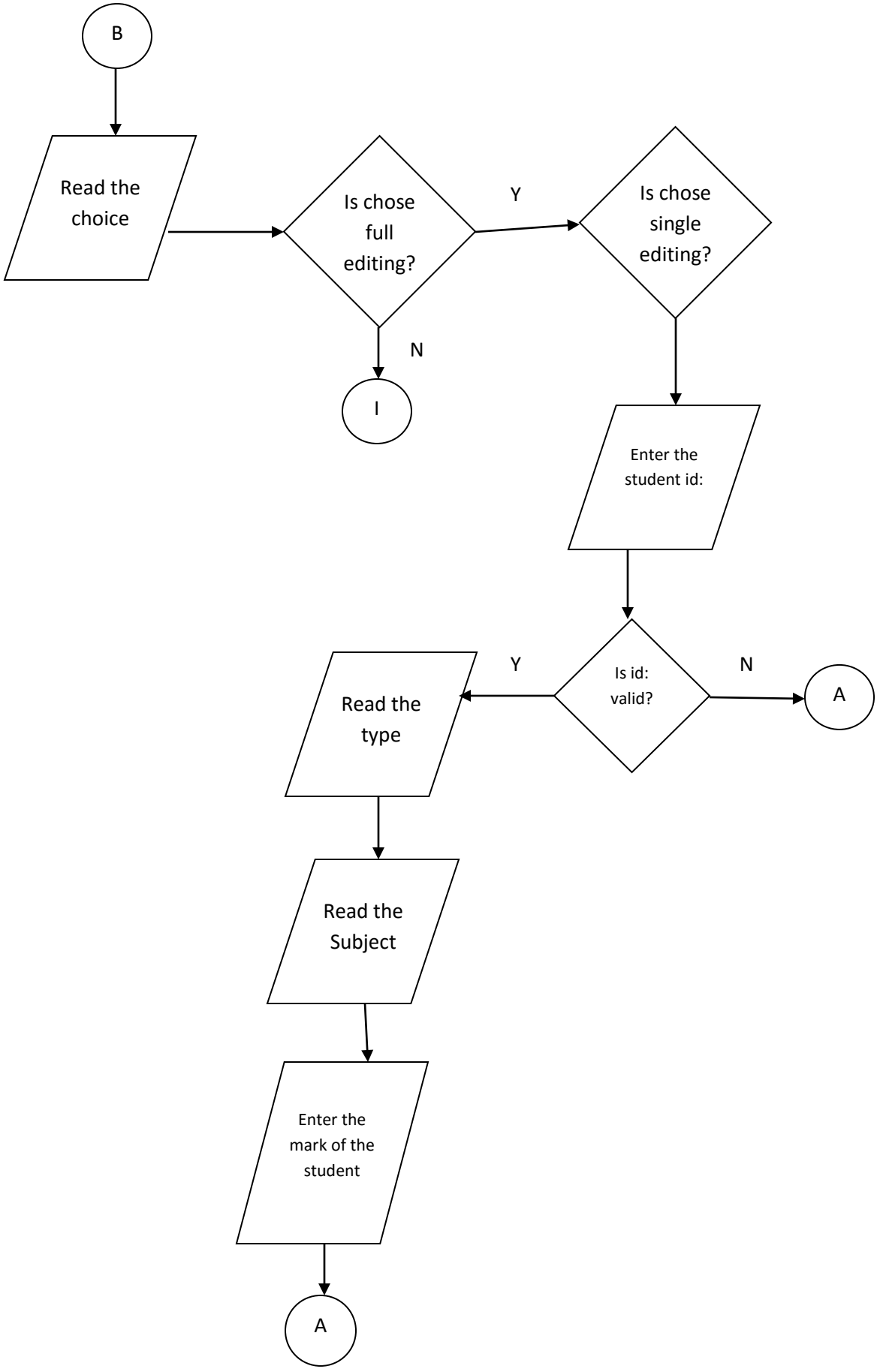
This system is done by making use of python. The admin can enter the details of a student such as name , id and marks can be added in the student entry form. It enables the paperless administrative implementation. The wholesome computerization of the data will ensure that the data loss is kept to a minimum and the details can be searched pretty easily.

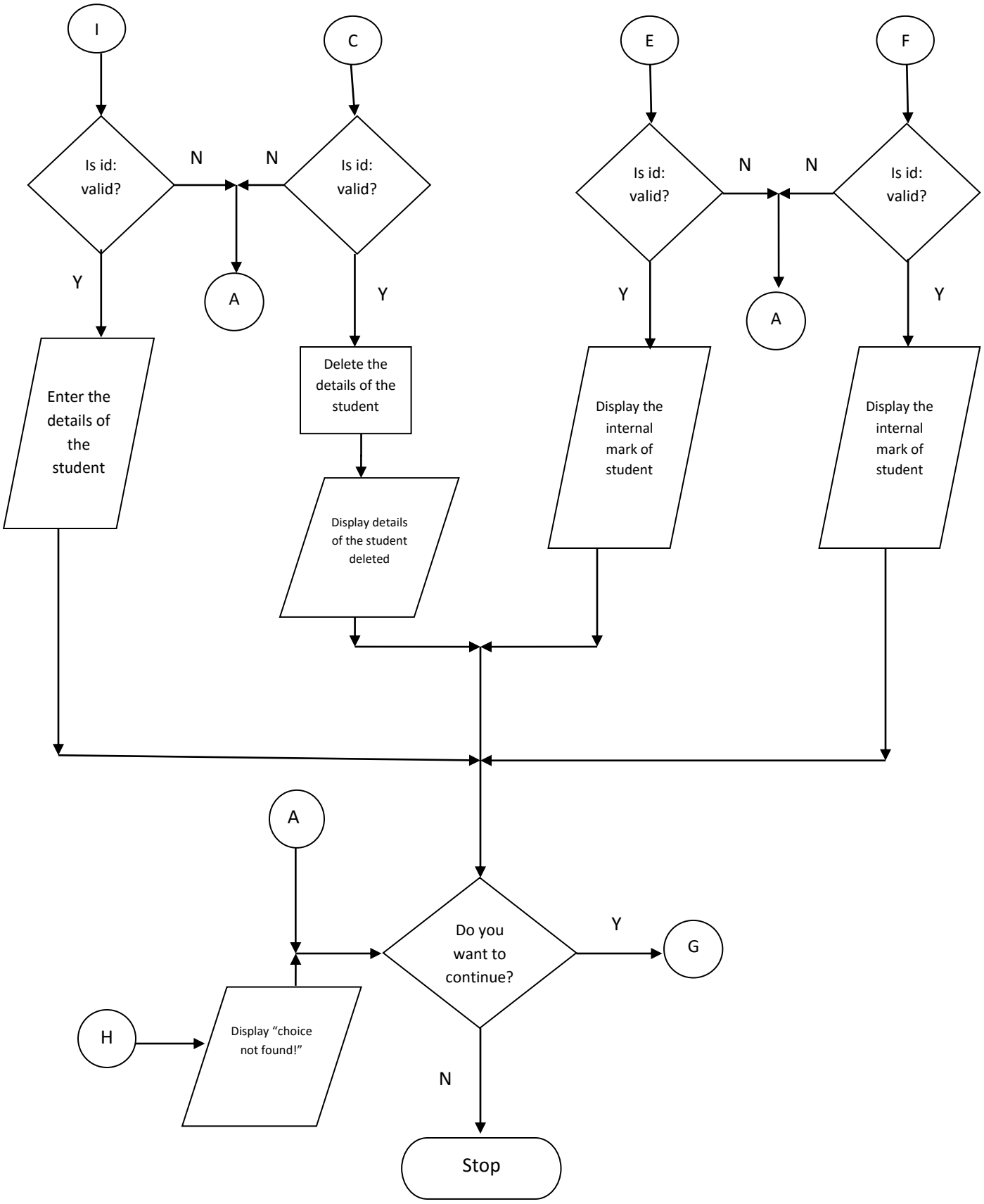
# 3. SYSTEM DESIGN

## 3.3FLOWCHART




Q
Is choice Input
Y
Enter the details of the student
A
N
Is choice Update
Y
B
N
Is choice Delete
Y
Enter the student id:
C
N
Is choice Display
Y
Display the internal mark of all students
A
N
Is choice Search
Y
Enter the student id:
E
N
Is choice Display Highest Mark
Y
Enter the student id:
F
N
H


B
Read the choice
Is chose full editing?
Y
Is chose single editing?
N
I
Enter the student id:
Is id: valid?
Y
N
A
Read the type
Read the Subject
Enter the mark of the student
A


I
C
E
F
Is id: valid?
Is id: valid?
Is id: valid?
Is id: valid?
N
N
N
N
Y
Y
Y
Y
A
A
Enter the details of the student
Delete the details of the student
Display details of the student deleted
Display the internal mark of student
Display the internal mark of student
A
Do you want to continue?
Y
G
H
Display "choice not found!"
N
Stop

# 4. CONCLUSION AND FUTURE SCOPE

## 4.1 CONCLUSION

Program to calculate internal mark of the student was successfully executed.

## 4.2LIMITATIONS

Program can’t run in a system where python is not installed.

## 4.3FUTURE SCOPE

Graphical interface is should be made for make it user friendly. Export this program into mobile application.

# REFERENCES


1. Python.org
2. Python.docs
3. Stackoverflow.com

## SAMPLE CODE

```
import pickle
import os

all_id=[]

def clear():
    os.system('cls')


class student():
    sub=['MA','ICS','BEE','EM','PH','SE']
    s=['Series 1','Series 2','Assignment','Aptitude']
    k=0
    def __init__(self):
        self.s1marks=[]
        self.s2marks=[]
        self.asmarks=[]
        self.apmarks=[]
        self.total=[]
        self.total1=0
        self.eid=0
        self.name='null'



    def getdata(self,check=0):
        self.eid=input("Enter Id: ")
        while self.eid in all_id and check==0:
            self.eid=input("Already Exist, Enter Id: ")
        self.name=raw_input("Enter Name: ")
        print "-----Subjects-----"
        print "MA: Calcalus"
        print "ICS: Introduction to Computer Science"
        print "BEE: Basic Electrical Engg."
        print "EM: Engg. mechanics"
        print "PH: Engg. physics"
        print "SE: Introduction to Sustainable engg."
```

```
    print "------------------"
    self.getmark()
    self.calculate()


def getdata1(s):
    print "-------Type-------"
    print "1: Series 1"
    print "2: Series 2"
    print "3: Assignment"
    print "4: Aptitude"
    print "------------------"
    a=9
    while a not in [0,1,2,3] or a<0:
        a=input("Enter type:")-1
    print "-----------------Subjects-----------------"
    print "1: MA: Calcalus"
    print "2: ICS: Introduction to Computer Science"
    print "3: BEE: Basic Electrical Engg."
    print "4: EM: Engg. mechanics"
    print "5: PH: Engg. physics"
    print "6: SE: Introduction to Sustainable engg."
    print "----------------------------------------"
    b=9
    while b not in [0,1,2,3,4,5] or a<0:
        b=input("Enter Sub:")-1
    if a==0:
        s.s1marks[b]=check1(input("Enter Mark"))
    if a==1:
        s.s2marks[b]=check1(input("Enter Mark"))
    if a==2:
        s.asmarks[b]=check2(input("Enter Mark"))
    if a==3:
        s.apmarks[b]=check2(input("Enter Mark"))
    s.calculate()
```

```
def calculate(self):
        print "lol"
        self.total=[]
        for i in range(0,len(self.sub)):
            a=self.s1marks[i]+self.s2marks[i]+self.asmarks[i]+self.apmarks[i]
            self.total.append(a)
        self.total1=0
        for i in self.total:
            self.total1+=i


    def getmark(self):
        self.s1marks=[]
        self.s2marks=[]
        self.asmarks=[]
        self.apmarks=[]
        self.total=[]
        for j in self.s:
            for i in self.sub:
                print '%30s'%("Enter "+i+" mark for "+j+" : "),
                if j=="Series 1" or j=="Series 2":
                    a=check1(input())
                else:
                    a=check2(input())
                if j=="Series 1":
                    self.s1marks.append(a)

                elif j=="Series 2":
                    self.s2marks.append(a)

                elif j=="Assignment":
                    self.asmarks.append(a)

                else:
                    self.apmarks.append(a)
```

```
    def outdata1(self):
        student.k+=1
        print student.k,"ID:",self.eid, "|","Name:",self.name
        print"-------------------------------------------------------------------------------------------"



    def outdata(self):
        print"-------------------------------------------------------------------------------------------"
        print "ID:",self.eid
        print "Name:",self.name
        self.outmarks()



    def outmarks(self):
        #print self.sub,self.s1marks,self.s2marks,self.total
        print"-------------------------------------------------------------------------------------------"
        print"| Subject    |   %s   |    %s    | %s     | %s      | Total        | %s
"%(self.s[0],self.s[1],self.s[2],self.s[3],"Status")
        print"-------------------------------------------------------------------------------------------"
        for i in range(0,len(self.sub)):
            if self.total[i]>=22.5:
                p="PASS"
            else:
                p="FAIL*"
            #print self.total1
            #print "%3s          |  %4.2f        |  %3.2f          |  %3.2f          |        %3.2f   |
%3.2f  " % (self.sub[i],self.s1marks[i],self.s2marks[i],self.asmarks[i],
            #                                                    self.apmarks[i],self.total[i])
            print "%3s          |  %4s        |  %4s          |  %4s          |        %4s   |        %4s  |
%4s   " %
(self.sub[i],str(float(self.s1marks[i])),str(float(self.s2marks[i])),str(float(self.asmarks[i])),

str(float(self.apmarks[i])),str(float(self.total[i])),p)
      print"-------------------------------------------------------------------------------------------"
```

```
def check1(a):
    while a>20 or a<0:
        a=input("Enter a mark between 0 and 20 :")
    return a


def check2(a):
    while a>5 or a<0:
        a=input("Enter a mark between 0 and 5 :")
    return a


def einput():
    get_all_id()
    f=open('student.dat','ab')
    e=student()
    e.getdata()
    pickle.dump(e,f)
    f.close()


def edisplay():
    f=open('student.dat','rb')
    try:
        while True:
            e=pickle.load(f)
            e.outdata()
    except EOFError:
        pass
    f.close()


def edisplay1():

    print"-------------------------------------------------------------------------------------------------"
    f=open('student.dat','rb')
    try:
        while True:
            e=pickle.load(f)
```

```
            e.outdata1()

    except EOFError:
        pass
    student.k=0
    f.close()


def esearch(r=0):
    if r==0:
        edisplay1()
    f=open('student.dat','rb')
    if r==0:
        r=input('Enter student ID: ')
    try:
        while True:
            e=pickle.load(f)
            if e.eid==r:
                print "student Found!"
                e.outdata()
                break
    except EOFError:
        print "student not found!!"
    f.close()


def high_mark():
    h=0;hid=0
    f=open('student.dat','rb')
    try:
        while True:
            e=pickle.load(f)
            if e.total1>h:
                h=e.total1
                hid=e.eid
                #print h,hid
    except EOFError:
        pass
```

```
    f.close()
    esearch(hid)


def edelete():
    edisplay1()
    f=open('student.dat','rb')
    f1=open('temp.dat','wb')
    flag=0
    id=input('Enter student ID: ')

    try:
        while True:
            e=pickle.load(f)
            if e.eid!=id:
                pickle.dump(e,f1)
            else:
                flag=1
    except EOFError:
        pass
    f.close();f1.close()
    os.remove('student.dat');os.rename('temp.dat','student.dat')
    if flag==1:
        print "Details Deleted!"
    else:
        print "Id not found!"


def eupdate():
    get_all_id()
    flag=0
    edisplay1()
    f=open('student.dat','rb')
    f1=open('temp.dat','wb')
    id=input('Enter student ID: ')
    clear()
    try:
        while True:
```

```
            e=pickle.load(f)
            if e.eid==id:
                e.getdata(1)
                pickle.dump(e,f1)
                print "Updated!"
                flag=1
            else:
                pickle.dump(e,f1)
    except EOFError:
        pass
    if flag!=1:
        print "Student not found!"
    f.close();f1.close()
    os.remove('student.dat');os.rename('temp.dat','student.dat')



def eupdate1():
    get_all_id()
    flag=0

    f=open('student.dat','rb')
    f1=open('temp.dat','wb')
    edisplay1()
    id=input('Enter student ID: ')
    clear()
    try:
        while True:
            e=pickle.load(f)
            if e.eid==id:
                e.outdata()
                e.getdata1()
                pickle.dump(e,f1)
                print "Updated!"
                e.outdata()
                flag=1
            else:
                pickle.dump(e,f1)
```

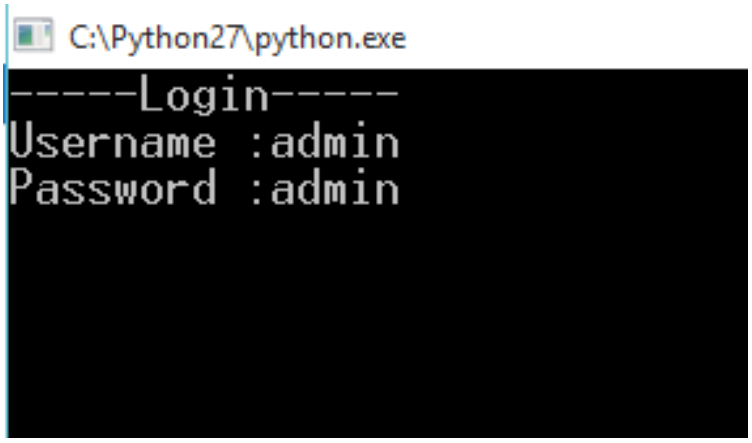
```
    except EOFError:
        pass
    if flag!=1:
        print "Student not found!"
    f.close();f1.close()
    os.remove('student.dat');os.rename('temp.dat','student.dat')



def get_all_id():
    global all_id
    f=open('student.dat','rb')
    try:
        while True:

            e=pickle.load(f)
            all_id.append(e.eid)


    except EOFError:
        pass
    f.close()



get_all_id()
uid=""
pas=""
loop='y'
while loop=='y':
    if (uid=="" and pas==""):
        clear()
        print "-----Login-----"
        uid=raw_input("Username :")
        pas=raw_input("Password :")
        print "--------------"
    if (uid=="admin" and pas=="admin")or(uid=="allen" and pas=="allen")or(uid=="amit"
and pas=="amit"):
```

```
    clear()
    print "-----Menu-----"
    print "1: Input"
    print "2: Update"
    print "3: Delete"
    print "4: Display"
    print "5: Search"
    print "6: Highest Mark"
    print "--------------"
    n=input("Enter Choice: ")
    if n==1:
       einput()
    elif n==2:
       print "-----Update-----"
       print "1: Full Editing"
       print "2: Single Editing"
       print "--------------"
       w=input("Enter Choice :")
       while (w>2 or w<=0):
          w=input("Invalid, Enter again :")
       if w==1:
          eupdate()
       elif w==2:
          eupdate1()
    elif n==3:
       edelete()
    elif n==4:
       edisplay()
    elif n==5:
       esearch()
    elif n==6:
       high_mark()
    else:
       print "Choice not found!"

else:
    print "Username or Password is incorrect!"
    uid=""
```

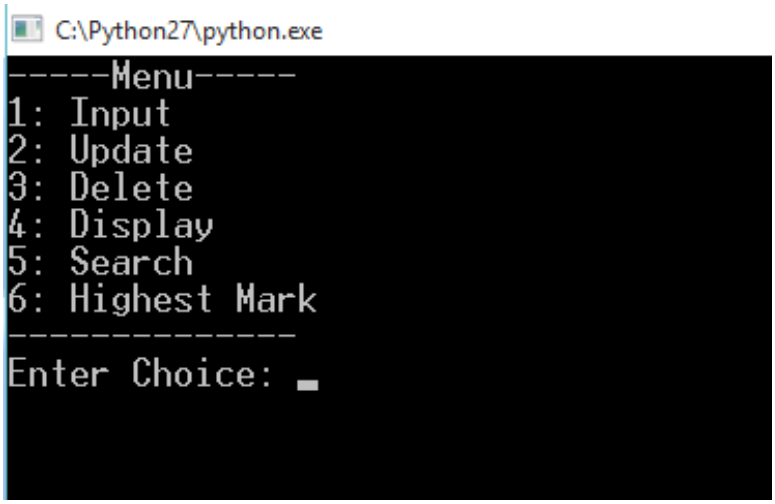
```
    pas=""
loop=raw_input("Do you want to continue? y/n: ")

while True:
    if loop=="y" or loop=="n":
        break
    else:
        loop=raw_input("Invaid Input, Do you Continue? y/n: ")
```

## SCREEN SHOTS

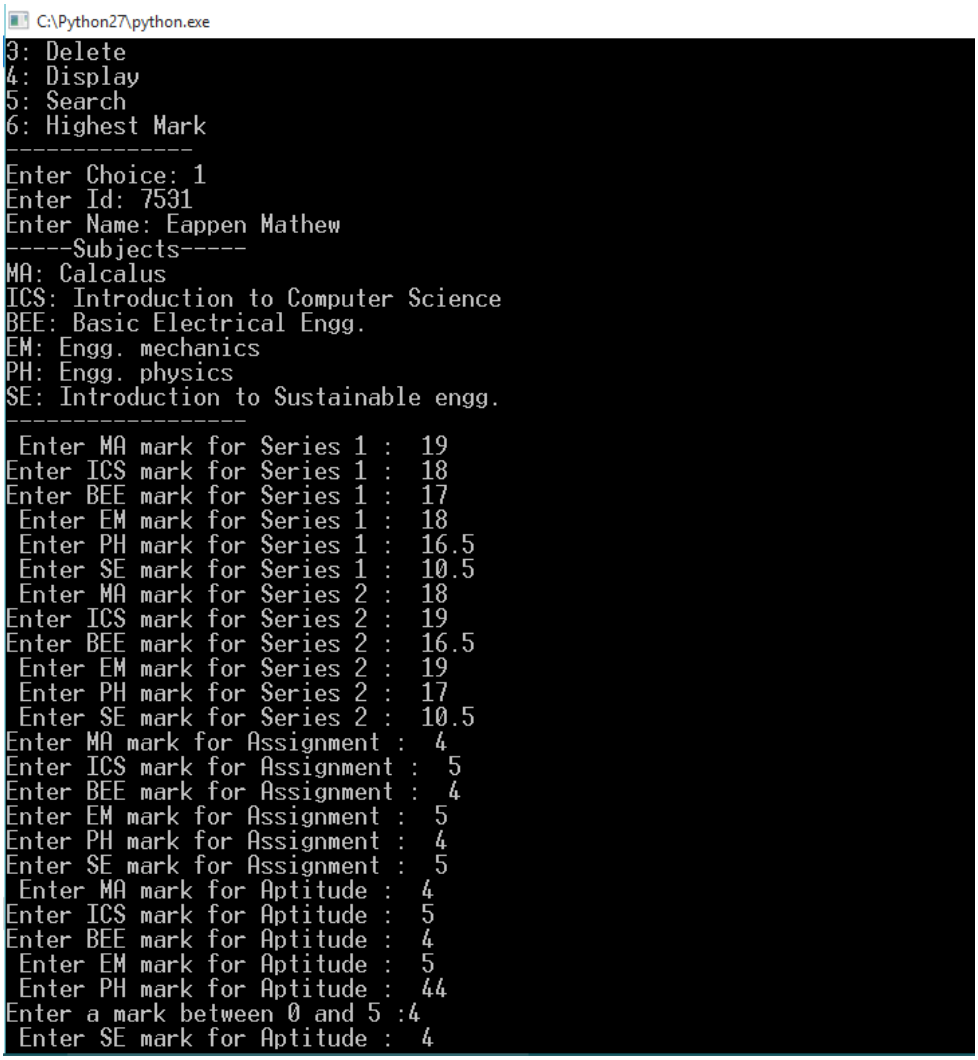
1. Login page



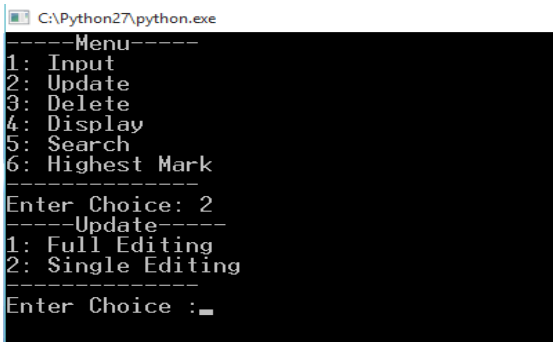

2. Menu



3. Adding a new student




4. Update choice



5. Full editing

```
15 ID: 8790 | Name: Ashily Joseph
----------------------------------------------------------------------------------------------------
16 ID: 6789 | Name: Ann C Thomas
----------------------------------------------------------------------------------------------------
17 ID: 6666 | Name: Riya Mol
----------------------------------------------------------------------------------------------------
18 ID: 8888 | Name: Greshma Joseph
----------------------------------------------------------------------------------------------------
19 ID: 5678 | Name: Allen
----------------------------------------------------------------------------------------------------
20 ID: 7555 | Name: Amal George Jacob
----------------------------------------------------------------------------------------------------
21 ID: 7531 | Name: Eappen Mathew
----------------------------------------------------------------------------------------------------
Enter student ID:
```

```
C:\Python27\python.exe
Enter Id: 7531
Enter Name: Eappen Mathew
-----Subjects-----
MA: Calcalus
ICS: Introduction to Computer Science
BEE: Basic Electrical Engg.
EM: Engg. mechanics
PH: Engg. physics
SE: Introduction to Sustainable engg.
------------------
 Enter MA mark for Series 1 :  14
Enter ICS mark for Series 1 :  15
Enter BEE mark for Series 1 :  14
 Enter EM mark for Series 1 :  15
 Enter PH mark for Series 1 :  161
Enter a mark between 0 and 20 :14
 Enter SE mark for Series 1 :  14
 Enter MA mark for Series 2 :  13
Enter ICS mark for Series 2 :  15
Enter BEE mark for Series 2 :  17
 Enter EM mark for Series 2 :  17
 Enter PH mark for Series 2 :  17
 Enter SE mark for Series 2 :  18
Enter MA mark for Assignment :  4
Enter ICS mark for Assignment :  5
Enter BEE mark for Assignment :  3
Enter EM mark for Assignment :  4
Enter PH mark for Assignment :  5
Enter SE mark for Assignment :  3
 Enter MA mark for Aptitude :  4
Enter ICS mark for Aptitude :  5
Enter BEE mark for Aptitude :  3
 Enter EM mark for Aptitude :  4
 Enter PH mark for Aptitude :  5
 Enter SE mark for Aptitude :  5
```

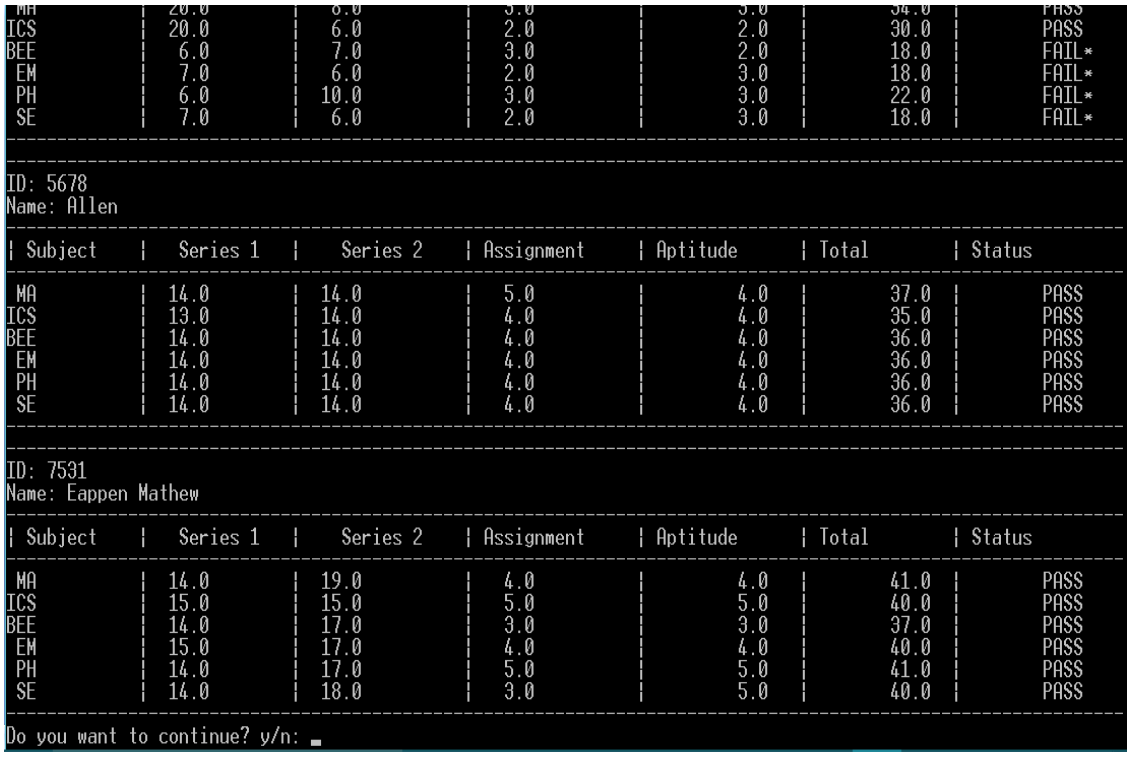
6. Single editing

```
C:\Python27\python.exe
| Subject    |   Series 1   |    Series 2    | Assignment     | Aptitude       | Total          | Status
-------------------------------------------------------------------------------------------------------------
 MA          |  14.0        |  13.0          |   4.0          |          4.0   |         35.0   |         PASS
ICS          |  15.0        |  15.0          |   5.0          |          5.0   |         40.0   |         PASS
BEE          |  14.0        |  17.0          |   3.0          |          3.0   |         37.0   |         PASS
 EM          |  15.0        |  17.0          |   4.0          |          4.0   |         40.0   |         PASS
 PH          |  14.0        |  17.0          |   5.0          |          5.0   |         41.0   |         PASS
 SE          |  14.0        |  18.0          |   3.0          |          5.0   |         40.0   |         PASS
-------------------------------------------------------------------------------------------------------------
-------Type-------
1: Series 1
2: Series 2
3: Assignment
4: Aptitude
------------------
Enter type:2
-----------------Subjects-----------------
1: MA: Calcalus
2: ICS: Introduction to Computer Science
3: BEE: Basic Electrical Engg.
4: EM: Engg. mechanics
5: PH: Engg. physics
6: SE: Introduction to Sustainable engg.
----------------------------------------
Enter Sub:1
Enter Mark19

Updated!
-------------------------------------------------------------------------------------------------------------
ID: 7531
Name: Eappen Mathew
-------------------------------------------------------------------------------------------------------------
| Subject    |   Series 1   |    Series 2    | Assignment     | Aptitude       | Total          | Status
-------------------------------------------------------------------------------------------------------------
 MA          |  14.0        |  19.0          |   4.0          |          4.0   |         41.0   |         PASS
ICS          |  15.0        |  15.0          |   5.0          |          5.0   |         40.0   |         PASS
BEE          |  14.0        |  17.0          |   3.0          |          3.0   |         37.0   |         PASS
 EM          |  15.0        |  17.0          |   4.0          |          4.0   |         40.0   |         PASS
 PH          |  14.0        |  17.0          |   5.0          |          5.0   |         41.0   |         PASS
 SE          |  14.0        |  18.0          |   3.0          |          5.0   |         40.0   |         PASS
-------------------------------------------------------------------------------------------------------------
```

7. Deleting the details of the student

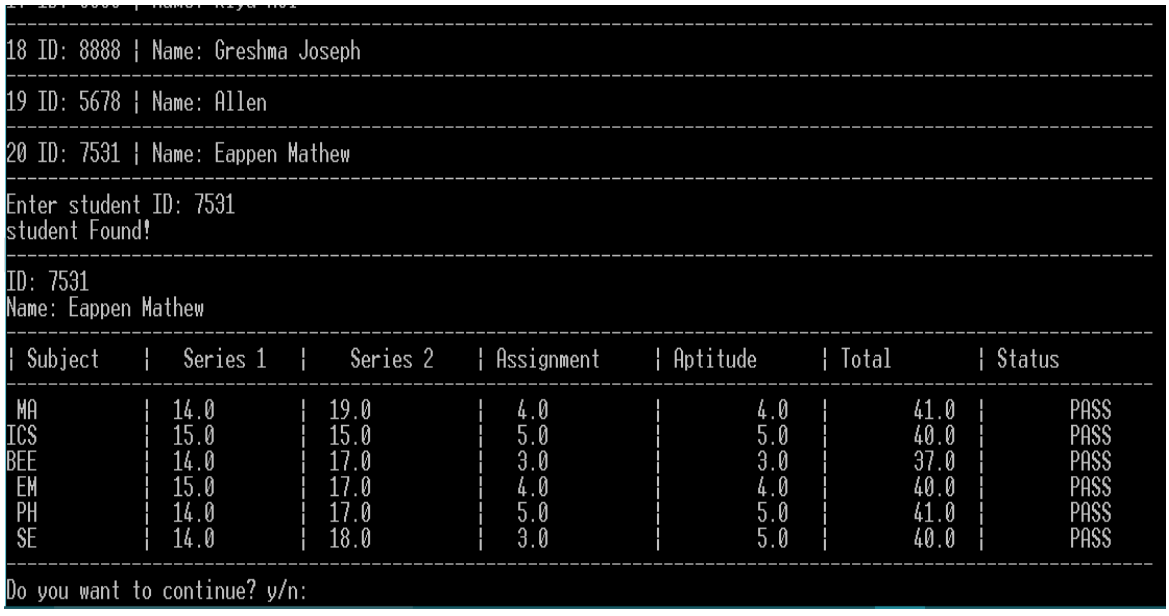
```
-------------------------------------------------------------------------------------------------------------
19 ID: 5678 | Name: Allen
-------------------------------------------------------------------------------------------------------------
20 ID: 7555 | Name: Amal George Jacob
-------------------------------------------------------------------------------------------------------------
21 ID: 7531 | Name: Eappen Mathew
-------------------------------------------------------------------------------------------------------------
Enter student ID: 7555
Details Deleted!
Do you want to continue? y/n:
```

8. Display the details of all student



```
 MA          |  20.0        |   8.0        |   3.0        |        3.0   |        34.0  |        PASS
ICS          |  20.0        |   6.0        |   2.0        |        2.0   |        30.0  |        PASS
BEE          |   6.0        |   7.0        |   3.0        |        2.0   |        18.0  |        FAIL*
 EM          |   7.0        |   6.0        |   2.0        |        3.0   |        18.0  |        FAIL*
 PH          |   6.0        |  10.0        |   3.0        |        3.0   |        22.0  |        FAIL*
 SE          |   7.0        |   6.0        |   2.0        |        3.0   |        18.0  |        FAIL*
-----------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------
ID: 5678
Name: Allen
-----------------------------------------------------------------------------------------------------------
| Subject    |   Series 1   |    Series 2    | Assignment     | Aptitude      | Total        | Status
-----------------------------------------------------------------------------------------------------------
 MA          |  14.0        |  14.0        |   5.0        |        4.0   |        37.0  |        PASS
ICS          |  13.0        |  14.0        |   4.0        |        4.0   |        35.0  |        PASS
BEE          |  14.0        |  14.0        |   4.0        |        4.0   |        36.0  |        PASS
 EM          |  14.0        |  14.0        |   4.0        |        4.0   |        36.0  |        PASS
 PH          |  14.0        |  14.0        |   4.0        |        4.0   |        36.0  |        PASS
 SE          |  14.0        |  14.0        |   4.0        |        4.0   |        36.0  |        PASS
-----------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------
ID: 7531
Name: Eappen Mathew
-----------------------------------------------------------------------------------------------------------
| Subject    |   Series 1   |    Series 2    | Assignment     | Aptitude      | Total        | Status
-----------------------------------------------------------------------------------------------------------
 MA          |  14.0        |  19.0        |   4.0        |        4.0   |        41.0  |        PASS
ICS          |  15.0        |  15.0        |   5.0        |        5.0   |        40.0  |        PASS
BEE          |  14.0        |  17.0        |   3.0        |        3.0   |        37.0  |        PASS
 EM          |  15.0        |  17.0        |   4.0        |        4.0   |        40.0  |        PASS
 PH          |  14.0        |  17.0        |   5.0        |        5.0   |        41.0  |        PASS
 SE          |  14.0        |  18.0        |   3.0        |        5.0   |        40.0  |        PASS
-----------------------------------------------------------------------------------------------------------
Do you want to continue? y/n:
```

9. Search the details about student



```
-----------------------------------------------------------------------------------------------------------
18 ID: 8888 | Name: Greshma Joseph
-----------------------------------------------------------------------------------------------------------
19 ID: 5678 | Name: Allen
-----------------------------------------------------------------------------------------------------------
20 ID: 7531 | Name: Eappen Mathew
-----------------------------------------------------------------------------------------------------------
Enter student ID: 7531
student Found!
-----------------------------------------------------------------------------------------------------------
ID: 7531
Name: Eappen Mathew
-----------------------------------------------------------------------------------------------------------
| Subject    |   Series 1   |    Series 2    | Assignment     | Aptitude      | Total        | Status
-----------------------------------------------------------------------------------------------------------
 MA          |  14.0        |  19.0        |   4.0        |        4.0   |        41.0  |        PASS
ICS          |  15.0        |  15.0        |   5.0        |        5.0   |        40.0  |        PASS
BEE          |  14.0        |  17.0        |   3.0        |        3.0   |        37.0  |        PASS
 EM          |  15.0        |  17.0        |   4.0        |        4.0   |        40.0  |        PASS
 PH          |  14.0        |  17.0        |   5.0        |        5.0   |        41.0  |        PASS
 SE          |  14.0        |  18.0        |   3.0        |        5.0   |        40.0  |        PASS
-----------------------------------------------------------------------------------------------------------
Do you want to continue? y/n:
```

10. Student who secured highest mark