**NAME:-VIVEK BULANI**

**ROLL NO:-SECOA115**

**ASSIGNMENT NO:-01**

**AIM** **:-**Write C++ program to store marks scored for first test of subject ‘Data structure and

Algorithm’ for n students compute

i)Average score of class

ii)Highest score and lowest score of class.

iii)marks scored by most of the students.

iv)list of students who were absent for the test.

**PROGRAM:-**

#include<iostream>

using namespace std;

class data

{

public:

int rollno,marks;

char name[10];

static int max,min,count,absent,sum;

public:

void accept();

void display();

void result();

};

int data::count;

int data::min=30;

int data::max;

int data::absent;

int data::sum;

void data::accept()

{

cout<<"\n enter rollno";

cin>>rollno;

cout<<"\n enter name";

cin>>name;

cout<<"\n enter marks ";

cin>>marks;

if(marks<0)

{

absent++;

}

else

{

if(marks<min)

min=marks;

if(marks>max)

max=marks;

sum=sum+marks;

}

count++;

}

void data::display()

{

cout<<"\t"<< rollno<<"\t"<<name<<"\t"<<marks<<"\n";

}

void data::result()

{

int avg,present;

present=count-absent;

avg=sum/present;

cout<<" \n avg of class "<<avg;

cout<<" \n min marks in class "<<min;

cout<<" \n max marks in class "<<max;

cout<<" \n students present in class "<<present;

cout<<" \n students absent in class "<<absent;

}

int main()

{

int m[31];

int n;

cout<<"enter the no.of students";

cin>>n;

data d[30],c;

int i;

for(i=1;i<=n;i++)

{

d[i].accept();

}

cout<<"\t rollno"<<"\t name"<<"\t marks"<<"\n";

for(i=0;i<=n;i++)

{

d[i].display();

}

c.result();

for(int i=0;i<31;i++)

{

m[i]=0;

}

for(int i=0;i<n;i++)

{

if(d[i].marks>0)

{

m[d[i].marks]++;

}

}

int x,y;

x=m[0];

for(int i=0;i<31;i++)

{

if(m[i]>x)

{

x=m[i];

y=i;

}

}

if(x>1)

{

cout<<"\n"<<x <<"no.of student scored "<<y<<"\n";

}

else

{

cout<<"\n"<<"0 no.of student scored same "<<"\n";

}

return 0;

}

**OUTPUT:-**

**enter the no.of students 3**

**enter rollno 1**

**enter name riya**

**enter marks 22**

**enter rollno 2**

**enter name tiya**

**enter marks -1**

**enter rollno 3**

**enter name tiya**

**enter marks 0**

**enter rollno 4**

**enter name siya**

**enter marks 19**

**rollno name marks**

**1 riya 22**

**2 tiya -1**

**3 piya 0**

**4 siya 19**

**avg of class 13**

**min marks in class 0**

**max marks in class 22**

**students present in class 3**

**students absent in class 1**

**0 no.of students scored same marks**