Lab 4: J. Daman 2005839

Q3 Create class complex which stores real and imaginary part of a complex number. Input 5 complex numbers and display them.

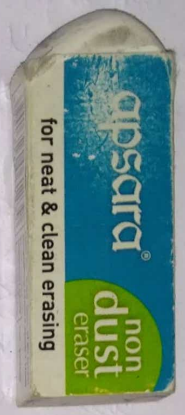
→
```
#include<iostream>
using namespace std;
class complex
{
  int a;
  int b;
  public:
    int number (int x, int y)
    {
      a = x;
      b = y;
    }
    int output()
    { cout << "the complex number is "<<a<<" + "<<b<<"i"
                                          <<endl;
    }
};
int main()
{
  complex q,v,c,d,e;
  q.number (4,6);
  q.output ();

  v.number (5,6);
  v.output ();

  c.number (7,6);
  c.output ();

  d.number (8,9);
  d.output ();

  e.number (10,12);
  e.output();
  return 0;
}
```



Output

The complex number is 4+6i

The complex number is 5+6i

The complex number is 7+6i

The complex number is 8+9i

The complex number is 10+12i

Q. Create class which store name, roll and total marks for a student. Input the data for a student and display it.

```
#include <iostream>
using namespace std;
class stud
  {
  char name [10];
  int roll;
  int marks;
  Public:
  void setdata(){
  {  Cout << "Enter the name of student " << endl;
   Cin >> name;
  Cout << " Enter the roll of student " << endl;
  Cin >> roll;
  Cout << " Enter total marks of students : " << endl;
  Cin >> marks;
  }
  void getdata()
  {
   Cout << "the name of student is " << name << endl;
   Cout << " roll no. is " << roll << endl;
   Cout << " total marks is " << marks << endl;
  }
 };
int main()
 {  stud S1;
    S1. setdata();
    S1. getdata();
    return 0;
 }
```

Output - Enter the name of student: Damyar
Enter the roll of student: 839
Enter total marks of students: 98
The name of student is Damyar
Roll no. is 839
total marks is 98

Q2. Modify the program to store marks in 3 subjects. Calculate the total marks and percentage of a student and display it

```
#include <iostream>
using namespace std;
class marks
{
  Private:
   int marks[3];
  public:
   Void setmarks()
   {
     for (int i=0; i<3; i++)
  { Cout << " Enter the marks of " <<i+1<< " subject " << endl;
   Cin >> marks [i];
  }
  }
   Void getvalues()
   {  int totalmarks = 0;
      float per;
      for (int i=0; i<3; i++)
      {  totalmarks += marks [i];
      }
      Cout << " total marks is " << total marks << endl;
      per = totalmarks/3.0;
      Cout << " percentage of student is: " << per;
    }
   };
int main ()
{  marks m1;
   m1.setmarks();
   m1. getvalues();
      return 0;
   }
```

Output:

```
Enter the mark of 1 subject
98
Enter the marks of 2 subject
99
Enter the marks of 3 subject
97
total marks is 294
percentage of student is: 98
```

Q3.

```
#include <iostream>
using namespace std;

class Complex
{
  private:
    int real;
    int img;

  Public:
   Void setData()
     {
       Cout << "Enter real part : \n";
       Cin >> real;
       Cout << "Enter imaginary part: \n";
       Cin >> img;
       Getdata();

   }
    Void getdata(){
      Cout <<" Complex number is "<< real <<" + "<<img<<"i "<<endl;
     }
};
int main()
 { Complex Com[5];
   int n = 5;
   for (int i=0; i<n; i++)
   { Cout <<" Enter values of "<<i+1<<" Complex number: \n";
     Com[i].setData();
   }
   return 0;
 }
```