Lab # 3

Object:
To understand the concepts of classes and to build classes and create object.

Theory:
A class can be viewed as a customized 'struct' that **encapsulates data** and **function**. Format of a class definition:

```
class your_class_name
{           member_access_specifier:
                    data members;
            member_access_specifier:
                    member_functions();
};
```

When cin and cout are used to perform I/O, actually objects are created from istream and ostream respectively that has been defined in iostream header file.

Building a Class

```cpp
#include <iostream>
using namespace std;
class smallobj                          //declare a class
{
private:
        int somedata;                   //class data
public:
        void setdata(int d)             //member function to set data
                { somedata = d; }
        void showdata()                 //member function to display data
                {
                cout << "Data is " << somedata << endl; }
};

void main()
{
smallobj s1, s2;                //define two objects of class smallobj
s1.setdata(1066);               //call member function to set data
s2.setdata(1776);
s1.showdata();                  //call member function to display data
s2.showdata();
}
```

Exercise:

1. Create a class DM which stores and displays the values of distances. DM stores distances in meters and centimeters. The value of distance should be entered by the user.