# Class and Object

# Class and object

A **class** in **C++** is a user-defined type or data structure declared with Keyword `class` that has data and functions (also called member variable and member functions as its members whose access is governed by the three access specifiers *private*, *protected* or *public*.

By default access to members of a C++ class is *private*. The private members are not accessible outside the class; they can be accessed only through methods of the class. The public members form an interface to the class and are accessible outside the class.

An Object is **an instance of a Class**.
When a class is defined, no memory is
allocated but when it is instantiated (i.e. an
object is created) memory is allocated.
Defining Class and Declaring Objects. A
class is defined in C++ using keyword
class followed by the name of class

## Example

```cpp
#include<bits/stdc++.h>
#include<string.h>
using namespace std;
class fruit{ <--class name is fruit
    public:
    string name;
    int price;
    public:
    void getdata(void){
        name = "mango";
        price = 100;
    }
    void display(void);
};
void fruit :: display(void){
```

```cpp
        cout<<"fruit name is
"<<name<<endl;
        cout<<"1kg price is "<<price;
}

int main(){
        fruit item; <--object is item
        item.getdata();
        item.display();
        return 0;
}
```

# Output:

fruit name is mango

1kg price is 100