

What is Class and Object?

Class:-

Class is a blueprint or template of object. It is user defined datatype which contains data members and functions. It is logical representation of the data. The class does not occupy any memory space, until an object is instantiated.

C++ Syntax (for class):

```
class student{  
public:  
int id;                      // data member  
int mobile;  
string name;  
int add(int x, int y){      // member functions  
return x + y;  
}  
};
```

Object:-

Object is run time entity. Object is an instance of class which have properties and behaviors. Object takes memory when it is created.

Note:- When an object is created using a new keyword, then space is allocated for the variable in a heap, and the starting address is stored in the stack memory.

When an object is created without a new keyword, then space is not allocated in the heap memory, and the object contains the null value in the stack.

C++ Syntax (for object):

```
student s = new student();
```