Object-oriented programming is programming based on the concept of objects.

Take an example,

In Code:Block, program looks like this

In above program, class Student contains the variables id and name.

```
class Student {
  public:
    int id;
    string name;
};
```

To access the variables id and name from the class Student, there is the need of an object for the class Student.

Syntax to create object:

```
ClassName ObjectName;
```

Objects for a class are always created in a function. Here object is created in a main function.

```
int main() {
  Student obj;
  return 0;
}
```

Now with the help of object obj, members of class Student are accesible.

Syntax to access class members using objects:

```
ObjectName.ClassMemberName;
```

Using object obj, assign a value to variable id and name.

```
obj.id = 30;
obj.name = "easyexamnotes.com";
```

To print the values of variables code is,

```
cout << obj.id << "\n";
cout << obj.name;
```

C++ program to implement use of object

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

class Student {
  public:
    int id;
    string name;
};

int main() {
  Student obj;

  obj.id = 30;
  obj.name = "easyexamnotes.com";

  cout << obj.id << "\n";
  cout << obj.name;
  return 0;
}
```

Output

Now it will be easy to write some theory points on object oriented programming.

- Object oriented programming involve use of object.
- Object is like a key for any class.
- Class members are accessible, only in the function wehre object is created.
- A class can have more than one object.
- Without class there is no existence of object.

What is class in OOP ?

- A class is like a blueprint for an object.
- Class is like a container, to store data and functions.
- Class is a user defined data type.
- When a class is defined no memory allocated without object.
- In above program, Student is like a variable whose data type is Class.

We will read more about class in the next article.

What is an Object of a class ?

- An Object is an instance of a Class.

- Object makes class members accessible.
- Objects are runtime entities.
- When object is created, memory is allocated to the class.

Some other examples of OOP ?

C++, Python, Java, C Sharp dot net, etc.

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