

C++ Constructor

In C++, **constructor** is a special method which is invoked automatically at the time of object **creation**. It is used to initialize the data members of new object generally. The constructor in C++ has the same name as class or structure.

There can be two types of constructors in C++.

- Default constructor
- Parameterized constructor

C++ Default Constructor

A constructor which has no argument is known as default constructor. It is invoked at the time of creating object.

Let's see the simple example of C++ default Constructor.

```
#include <iostream>
using namespace std;
class Employee
{
public:
    Employee()
    {
        cout << "Default Constructor Invoked" << endl;
    }
};
int main(void)
{
    Employee e1; //creating an object of Employee
    Employee e2;
    return 0;
}
```

Output:

```
Default Constructor Invoked
Default Constructor Invoked
```

C++ Parameterized Constructor

A constructor which has parameters is called parameterized constructor. It is used to provide different values to distinct objects.

Let's see the simple example of C++ Parameterized Constructor.

```
#include <iostream>
using namespace std;
class Employee {
public:
    int id;//data member (also instance variable)
    string name;//data member(also instance variable)
    float salary;
    Employee(int i, string n, float s)
    {
        id = i;
        name = n;
        salary = s;
    }
    void display()
    {
        cout<<id<<" "<<name<<" "<<salary<<endl;
    }
};
int main(void) {
    Employee e1 =Employee(101, "Sonoo", 890000); //creating an object of Employee
    Employee e2=Employee(102, "Nakul", 59000);
    e1.display();
    e2.display();
    return 0;
}
```

Output:

```
101  Sonoo  890000
102  Nakul  59000
```