Constructors

Constructors

- **A constructor is :**

1. **To create a constructor, use the same name as the class, followed by parentheses ().**
2. **a special method that is automatically called when an object of a class is created.**

Constructors

- **A constructor in C++ is :**

1. **The constructor has the same name as the class, it is always public, and it does not have any return value.**
2. **Constructors can also take parameters (just like regular functions), which can be useful for setting initial values for attributes.**

Example(1)

```
class myCon
{
public:
        int x, y;
        myCon(int a, int b)
        {
                x = a;
                y = b;
        }
};
   int main()
{       myCon ob(10, 20);
        cout << ob.x << endl;
                cout << ob.y;
}
```

Example(2)

```
class myCon
{
public:
        int x, y;
        myCon(int a, int b)
        {x = a;
        y = b;
        }
};
```

```
int main()
{       int n1, n2;
        cout << "Enter no1 \n";
        cin >> n1;
        cout << "Enter no2 \n";
        cin >> n2;
        myCon ob(n1,n2);
        cout << ob.x << endl;
                cout << ob.y;

}
```

Example(3)

```
class sum
{
private:
        int x, y;
public:
        sum(int a, int b)
        {       x = a;
                y = b;
        }
        int getSum( )
        {   return x + y;
          }
};
```

```
int main()
{
        int n1, n2;
        cout << "Enter no1 \n";
        cin >> n1;
        cout << "Enter no2 \n";
        cin >> n2;

        sum ob(n1,n2);
        cout << ob.getSum();
}
```

Example(4)

```
class sum
{
private:
        int x, y,z;
public:
        sum(int a, int b)
        {
                x = a;
                y = b;
        }
        sum(int a, int b, int c)
        {       x = a;
                y = b;
                z = c;}
```

```
int getSumXY( )
        {
                return x + y;
        }

        int getsumXYZ( )
        {
                return x + y + z;
        }
};
```

Example(4)

```
int main()
{
        int n1, n2;
        cout << "Enter no1 \n";
        cin >> n1;
        cout << "Enter no2 \n";
        cin >> n2;

        sum ob1(n1,n2);
        cout << ob1.getSumXY() << endl;

        sum ob2(20, 30, 10);
        cout << ob2.getsumXYZ() << endl;
}
```

Example(5)

```
class Numbers
{
private:
        int x, y;
public:
        Numbers( )
        {  x = 0;
          y = 0; }
        Numbers(int a, int b)
        {  x = a;
           y = b;  }
        void get( )
        {
        cout << x << "\n" << y << endl;
        }
};
```

```
 int main()
{
        Numbers ob1;
        ob1.get();

        cout << "****************** \n";

        Numbers ob2(7, 9);
        ob2.get();
   }
```