Constructor Overloading

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Constructor overloading can be defined as the concept of having more than one constructor with different parameters so that every constructor can perform a different task.

As there is a concept of function overloading, similarly constructor overloading is applied when we overload a constructor more than a purpose.

The declaration is the same as the class name, but there is no return type as they are constructors.

The criteria to overload a constructor is to differ the number of arguments or the type of arguments. The corresponding constructor is called depending on the number and type of arguments passed.

Example using smartphone class:

```
class smartphone{

    //Data Members(Properties)
    string model;
    int year_of_manufacture;
    bool _5g_supported;

    public:
    //constructor with 0 parameter
    smartphone(){
        model = "unknown";
        year_of_manufacture = 0;
        _5g_supported = false;
    }

    //constructor with 2 parameter
    smartphone(string model_string, bool _5g_){
        model = model_string;
        _5g_supported = _5g_;
    }
```

```
    //constructor with 3 parameter
    smartphone(string model_string, int manufacture, bool _5g_){
        //initialising data members
        model = model_string;
        year_of_manufacture = manufacture;
        _5g_supported = _5g_;
    }
};


int main(){
    //creating objects of smartphone class

    // using constructor with 0 parameter
    smartphone unknown;

    //using constructor with 0 parameter
    smartphone redmi("Note 7 Pro", false);

    // using constructor with 3 parameter
    smartphone iphone("iphone 11", 2019, false );
}
```