Constructor

## Definition:

Constructor is used to create an instance of the class. It is a block of code, which allows us to initialize the variables before methods are invoked or fields are accessed.

## Key Points:

Every class including abstract class contains at least one constructor (i.e Default or User defined constructor)

The name of the constructor should match with the name of the class.

Return types are not allowed. So we can’t return any value from the constructor.

Allowed modifiers are public, private, protected & default.

Constructors are never inherited.

Constructor overloading is allowed.

The first line inside any constructor is either super () or this () and we are not allowed to use both simultaneously.

Examples:

class Demo {

[**void / int]** Demo() {

}

}

As shown in the above, if we are adding any return type then we won’t get any CTE or RTE.

class Demo {

**static** Demo() {

}

}

If we are adding any other modifier apart from the allowed modifiers then we will get CTE.

## Types Of constructors:

Default constructor

Parameterized constructor

### Default Constructor:

Compiler will place the default constructor, if we didn’t specify any constructor explicitly inside the class. As shown below, it doesn’t take any parameter.While creating the object, this will assign the default values to the properties.

Signature: [public / default] constructor\_name (){

Super()

}

DefaultConstructorSample.java

If we run the above program, then it will display the default values for Id and constructorName.

### Parameterized Constructor:

Constructor which contains the parameters is known as parameterized constructor.

Constructor parameters are used to initialize the object.

class Employee {

String name;

int age;

Employee(String name, int age) {

this.name = name;

this.age = age;

}

}

## Overloaded Constructor:

Constructor having the same name with different parameter list is known as overloaded constructor.

This will allows us to create different instances of a class based on the parameter list.

ParameterizedConstructorSample.java

As shown in the above, first constructor is accepting two parameters id and name.

Next overloaded constructor is accepting three parameters id, name and type.

## Best Practices:

It is always a good practice to write a default constructor whenever we are adding an parameterized constructor.

ConstructorBestPracticeSample\_V.java