CONSTRUCTOR

CLASS AND OBJECTS

Recap

Let's Start !

Recap

Which keyword is used to create Object in java

✓ **new**

Recap

What is the default value of int and boolean?

- ✓ int : 0
- ✓ boolean : false

Recap

What is the scope of private access specifier?

- ✓ Members that are declared private cannot be accessed outside the class.

OBJECTIVES

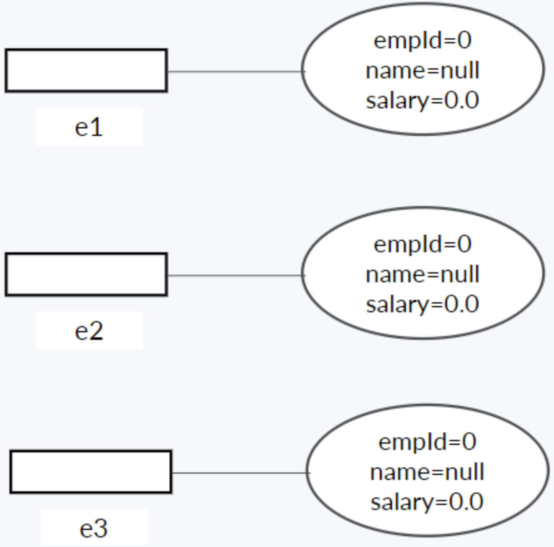
On completion of this topic, you will be able to:

- Make use of Constructor
- Identify types of Constructors
- Use this in various perspectives
- Create Constructor Overloading
- Perform Method Overloading

CONSTRUCTOR & OVERVIEW

CREATE THREE OBJECT FOR EMPLOYEE CLASS

```
Employee e1 = new Employee();
Employee e2 = new Employee();
Employee e3 = new Employee();
```



- ✓ Object are created
- ✓ They are not in proper state.
- ✓ Instance variables are allocated the default value

How to create the object with proper state?

Ans: By using Constructor

CONTRUCTOR

What is a constructor?

Special method is invoked implicitly when an object is created.

Why constructor?

To initialize the instance variables with proper values.

Rules for writing a constructor:

Constructor must not have a return type (not even void).

Constructor name must be the same as the name of the class.

When does a constructor get executed?

Constructor is automatically invoked when an object is created.

CONTRUCTOR TYPES

TYPES OF CONSTRUCTORS

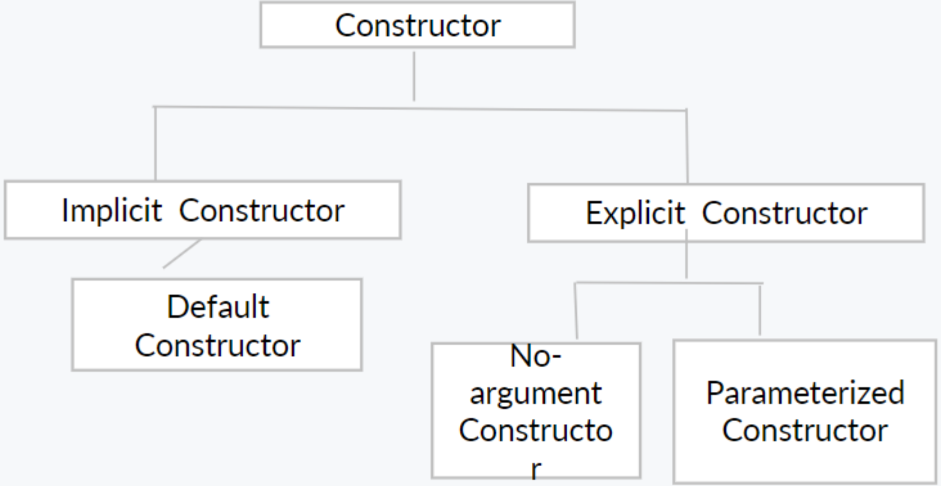
Implicit Constructor

Explicit Constructor

- Implicit Constructor – Provided by compiler.
- Explicit Constructor – User defined Constructor.
- **Explicit Constructor Types**

  No Argument Constructor.

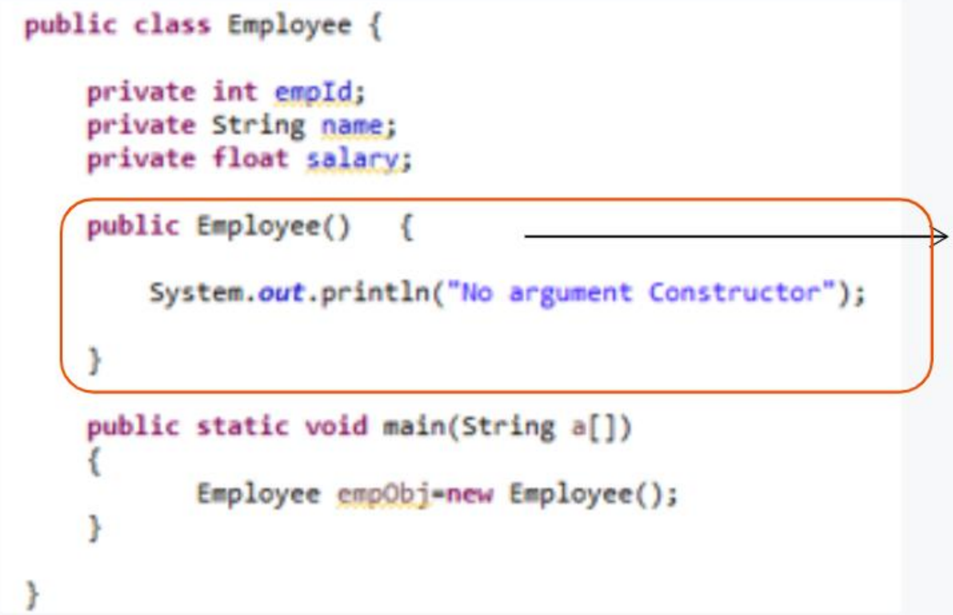
  Parameterized Constructor.



CONTRUCTOR TYPES

NO ARGUMENT CONSTRUCTOR

Constructor written with no arguments is known as a default constructor.



```java
public class Employee {

    private int empId;
    private String name;
    private float salary;

    public Employee()   {

        System.out.println("No argument Constructor");

    }

    public static void main(String a[])
    {
          Employee empObj=new Employee();
    }

}
```

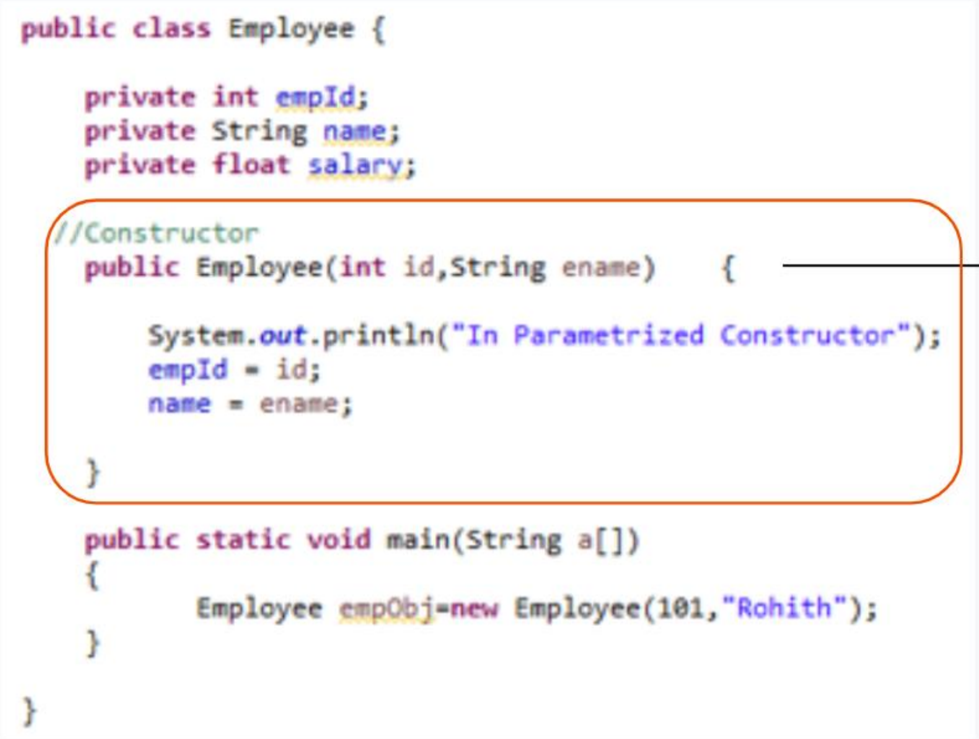
No argument Constructor

Output
No argument
Constructor.

EXPLICIT CONSTRUCTOR

PARAMETERIZED CONSTRUCTOR

Constructor written with argument list is known as a parameterized constructor.



```
public class Employee {

    private int empId;
    private String name;
    private float salary;

  //Constructor
    public Employee(int id,String ename)    {

        System.out.println("In Parametrized Constructor");
        empId = id;
        name = ename;

    }

    public static void main(String a[])
    {
        Employee empObj=new Employee(101,"Rohith");
    }

}
```

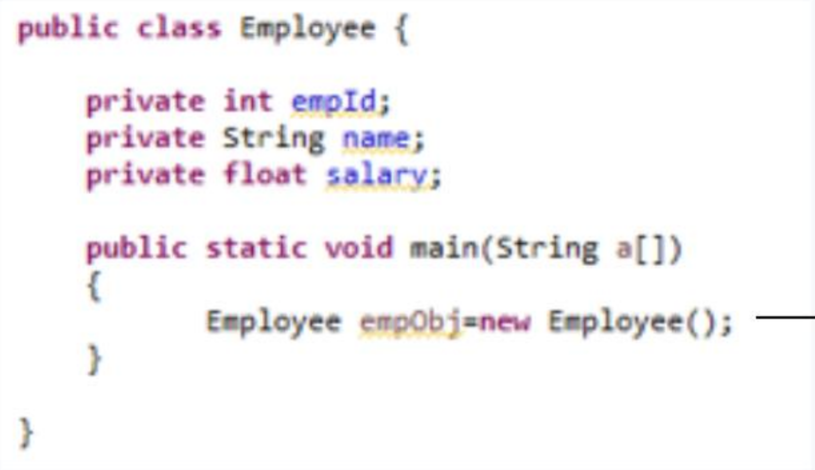
Parameterized Constructor

Output
In Parameterized Constructor.

IMPLICIT CONSTRUCTOR

DEFAULT CONSTRUCTOR

Constructor is provided by the compiler, when no constructor is written for a class it’s known as a default constructor.



```
public class Employee {

    private int empId;
    private String name;
    private float salary;

    public static void main(String a[])
    {
            Employee empObj=new Employee();
    }

}
```

Invokes default Constructor

HANDS ON TRAINING

Doubts Time

QUIZ TIME

Quiz Time

Q1. Object can be created by ____________ keywod?

A create

B this

[✓ C new]

D default

Quiz Time

Object will be create in ________________ memory area

A stack

B method

[✓ C] heap

SUMMARY

SUMMARY

- ✓ Explain Class and Object
- ✓ Create Class and Object
- ✓ Use appropriate Access Specifier
- ✓ Write Getters, Setters Method