Declare A Variable
Master of Java Code

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Object Oriented Programming
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ESPE

Constructors

Instantiation

Constructors

A constructor is a method used to create an instance of a class

A constructor (in Java) is a method with the same name as its class

A constructor has no return type

A constructor is used to initialize an object

Constructor types:

Default Constructor

No arguments Constructor

Parametrized Constructor

Example

Chicken
- id : int - name : String -color : String -age : int -molting : bool
+doStuff(forTime : int) -cluck() -wander() -eat() -drink() -poop() -layAnEgg() : Egg **Chicken()** **Chicken(int: id, name: String, color: String, age: int, molting: bool)**

Default Constructor

○ It is provided by Java, (inherited from the **Object** class)

○ It does not receive arguments.

○ It is always there, when the class does not have an implicit constructor

○ It is used when the object's properties are initialized by individual methods (getters), after its instantiation

```java
public static void main(String[] args) {
    Chicken chicken = new Chicken();
     System.out.println(chicken);
```

```
Chicken{id=0, name=null, color=null, age=0, isMolting=false}
```

No-Arg constructor

- Constructor with no arguments
- Used to initialize the state of an object
- For example, resources, network connections, logs, etc.
- It replaces the default constructor.

```
public Chicken() {
        id = 0;
        name = "";
        color = "";
        age = 1;
        isMolting = false;
    }
```

```
Chicken{id=0, name=, color=, age=1, isMolting=false}
```

Parametrized Constructor

- When the object is instantiated, it will initialize its state to the values sent through the arguments

```java
public Chicken(int id, String name, String color, int age,
            boolean isMolting) {
        this.id = id;
        this.name = name;
        this.color = color;
        this.age = age;
        this.isMolting = isMolting;
    }

Chicken chicken = new Chicken(1, "Lucy", "white", 2, false);
System.out.println(chicken);
```

```
Chicken{id=1, name=Lucy, color=white, age=2, isMolting=false}
```