# WEEK 2

```java
class Cat {
    String name;
    int age;

    // Constructor
    Cat(String name, int age) {
        this.name = name;
        this.age = age;
    }

    // Display method
    void display() {
        System.out.println("Name is : " + name);
        System.out.println("Age is : " + age);
    }
}

class CatMain {
    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Cat obj = new Cat(name: "Tommy", age: 20);
        obj.display();
    }
}
```

```
PS C:\Users\VLT-BNT\OneDrive\Documents\Desktop\OOP JAVA> javac CatMain.java
PS C:\Users\VLT-BNT\OneDrive\Documents\Desktop\OOP JAVA> java CatMain
Name is : Tommy
Age is : 20
PS C:\Users\VLT-BNT\OneDrive\Documents\Desktop\OOP JAVA>
```

```java
class Animal {
    void makeSound() {
        System.out.println(x: "Animal makes sound");
    }
}


class Dog extends Animal {
    void makeSound() {
        System.out.println(x: "Dog Barks");
    }
}


public class AnimalMain {
    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Animal a = new Animal();
        Dog d = new Dog();
        a.makeSound();
        d.makeSound();
    }
}
```

```
PS C:\Users\VLT-BNT\OneDrive\Documents\Desktop\OOP JAVA> javac AnimalMain.java
PS C:\Users\VLT-BNT\OneDrive\Documents\Desktop\OOP JAVA> java AnimalMain
Animal makes sound
Dog Barks
```

```java
class Book {
    String title;
    String author;
    double price;

    // Default constructor
    Book() {
        title = "Unknown";
        author = "Unknown";
        price = 0.0;
    }

    // Constructor with title and author
    Book(String title, String author) {
        this.title = title;
        this.author = author;
        this.price = 0.0;
    }

    // Constructor with title, author, and price
    Book(String title, String author, double price) {
        this.title = title;
        this.author = author;
        this.price = price;
    }

    // Method to print values
    void display() {
        System.out.println("Book Title: " + title);
        System.out.println("Book Author: " + author);
        System.out.println("Book Price: " + price);
        System.out.println();
    }

    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Book b1 = new Book();
        Book b2 = new Book(title: "Java Programming", author: "John Doe");
        Book b3 = new Book(title: "Python Guide", author: "Alice Smith", price: 49

        b1.display();
        b2.display();
        b3.display();
    }
```

```
Book Title: Java Programming
Book Author: John Doe
Book Price: 0.0
```