CYDEO

Method Overloading

Method Overloading

- Allows us to have more than one method with the same name
- Parameters must be different (either the data type or the number of parameters)
- Improves the code readability and re-usability
- It’s easier to remember one method name instead of remembering multiple method names

Multiple Methods Without Method Overloading

```java
public static int sumOfTwoNumbers(int a, int b){
    return a + b;
}

public static int sumOfThreeNumbers(int a, int b, int c){
    return a + b + c;
}

public static int sumofFourNumbers(int a, int b, int c, int d){
    return a + b + c + d;
}
```

Three different methods with three different names

Multiple Methods With Method Overloading

```java
public static int sum(int a, int b){
    return a + b;
}

public static int sum(int a, int b, int c){
    return a + b + c;
}

public static int sum(int a, int b, int c, int d){
    return a + b + c + d;
}
```

Three different methods with the same name

Things to Remember

- Parameters of the overloaded must be different
- Return Type of the overloaded method can be same or different
- Method can be overloaded any number of times
- Any method can be overloaded