Java Lesson Notes Week-16

Java - Methods

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Methods (Functions)

A Java method is a collection of statements that are grouped together to perform an operation.

Creating Method

Considering the following example to explain the syntax of a method –

Syntax

```
public static int methodName(int a, int b) {
    // body
}
```

Here,

- **public static** – modifier

- **int** – return type

- **methodName** – name of the method

- **a, b** – formal parameters

- **int a, int b** – list of parameters

Example

```java
/** the snippet returns the minimum between two numbers */

public static int minFunction(int n1, int n2) {
    int min;
    if (n1 > n2)
        min = n2;
    else
        min = n1;

    return min;
}
```

Method Calling

For using a method, it should be called. There are two ways in which a method is called i.e., method returns a value or returning nothing (no return value).

The process of method calling is simple. When a program invokes a method, the program control gets transferred to the called method. This called method then returns control to the caller in two conditions, when –

✓ the return statement is executed.
✓ it reaches the method ending closing brace.

Example

```java
public class ExampleMinNumber {

    public static void main(String[] args) {
        int a = 11;
        int b = 6;
        int c = minFunction(a, b);
        System.out.println("Minimum Value = " + c);
    }

    /** returns the minimum of two numbers */
    public static int minFunction(int n1, int n2) {
        int min;
        if (n1 > n2)
            min = n2;
        else
            min = n1;

        return min;
    }
}
```

This will produce the following result −

Output

```
Minimum value = 6
```