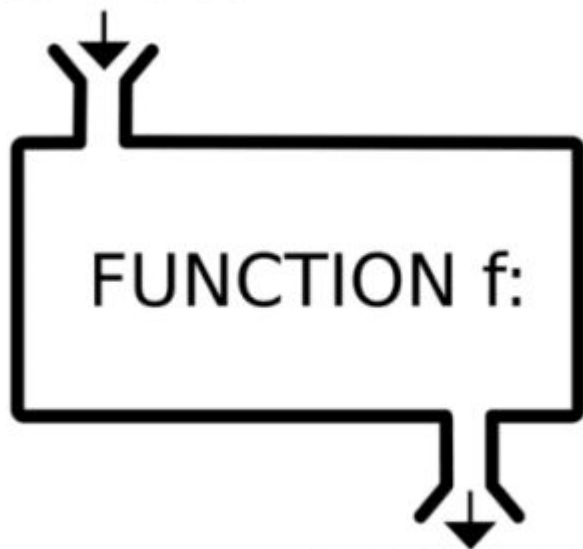


# Lecture 9

Java Methods

INPUT  $x$



OUTPUT  $f(x)$

# Variable Scope

Variable scope tells you where the variable is valid.

Default variable scope is block scope.

```
// Variable Declaration - Creates storage for the variable
// Variable Initialization - Assigns the value first time to the variable
// Variable Assignment - Update the value of the variable

class Main {
    public static void main(String[] args) {
        String ishanComputerScienceNotes = "ABCDEFGH";
        System.out.println( "Ishan's notes are " + ishanComputerScienceNotes);

        namanNotes(ishanComputerScienceNotes);
        System.out.println( "Ishan's notes are " + ishanComputerScienceNotes);

        dineshNotes(ishanComputerScienceNotes);

        System.out.println( "Ishan's notes are " + ishanComputerScienceNotes);

    }

    public static void namanNotes(String namanComputerScienceNotes) {
        System.out.println( "Naman's notes are " + namanComputerScienceNotes);
        namanComputerScienceNotes = "ABCDEFGH123456" ;
        System.out.println( "Naman's notes are " + namanComputerScienceNotes);
    }

    public static void dineshNotes(String dineshComputerScieneNotes) {
        System.out.println( "Dinesh's notes are " + dineshComputerScieneNotes);
        dineshComputerScieneNotes = "ABCEFGHBHAINS" ;
        System.out.println( "Dinesh's notes are " + dineshComputerScieneNotes);
    }
}
```

```
public static void main(String[] args) {  
    String name = "Shubham"; // this name variable is under main scope only  
    String name1 = "Vikas";  
    String name2 = "Neha";  
    String name3 = "Sumit";  
  
    // printName(name);  
    printName(name1); // it copies the value of name1 variable and stores it in name variable of printName function  
    // printName(name2);  
    // printName(name3);  
}  
  
// pass by value  
  
public static void printName(String name) { // this variable name is under the scope of printName function  
    System.out.println("Student name is " + name);  
  
    name = "Ishan";  
}
```

# MARKS QUESTION

```
public static void main(String[] args) {  
    int marks = 90;  
    System.out.println( "Marks in main " + marks);  
  
    printMarks(marks);  
    marks = 100;  
    printMarks(marks);  
    marksheet(marks);  
  
}  
  
public static void printMarks(int studentMarks) {  
    System.out.println( "Marks in printMarks " + studentMarks);  
  
    // studentMarks = 100;  
    // System.out.println("Marks in printMarks " + studentMarks);  
}  
  
public static void marksheet(int marksheet) {  
    System.out.println( "Marks in marksheet " + marksheet);  
  
}
```