

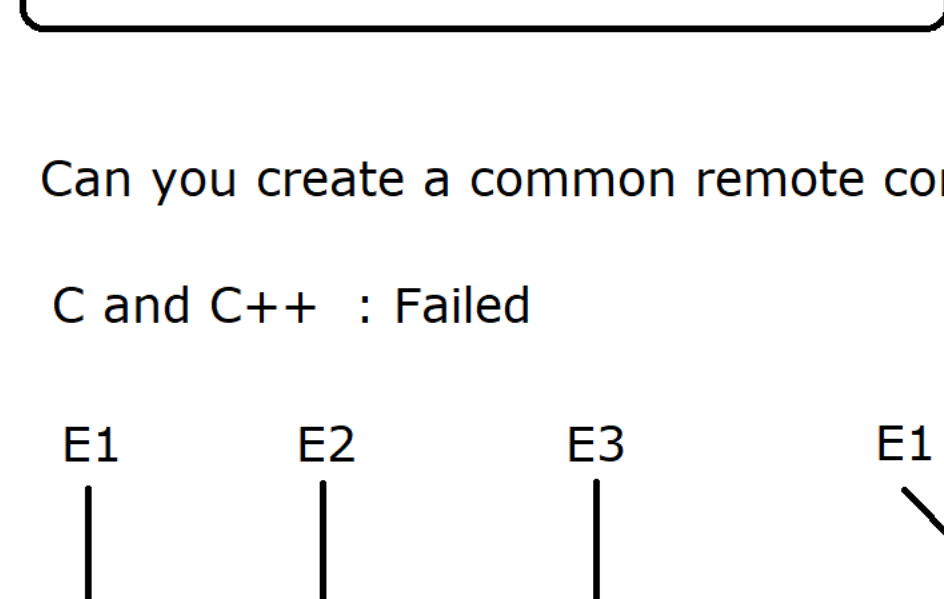
Flavors of Java Language :  
\* Java has total 4 flavors :

- 1) **JSE** (Java Standard Edition) OR Core Java [By using JSE we can develop stand-alone appln]
- 2) **JEE** (Java Enterprise Edition) OR Adv. Java [By using JEE we can develop web application]
- 3) **JME** (Java Micro/Mobile Edition) OR Android Java [We can develop mobile application]
- 4) **JavaFX** [It is used to develop GUI applications but now it is out dated]

Note : We have Spring core, Spring boot and Micro services frameworks with various tools.

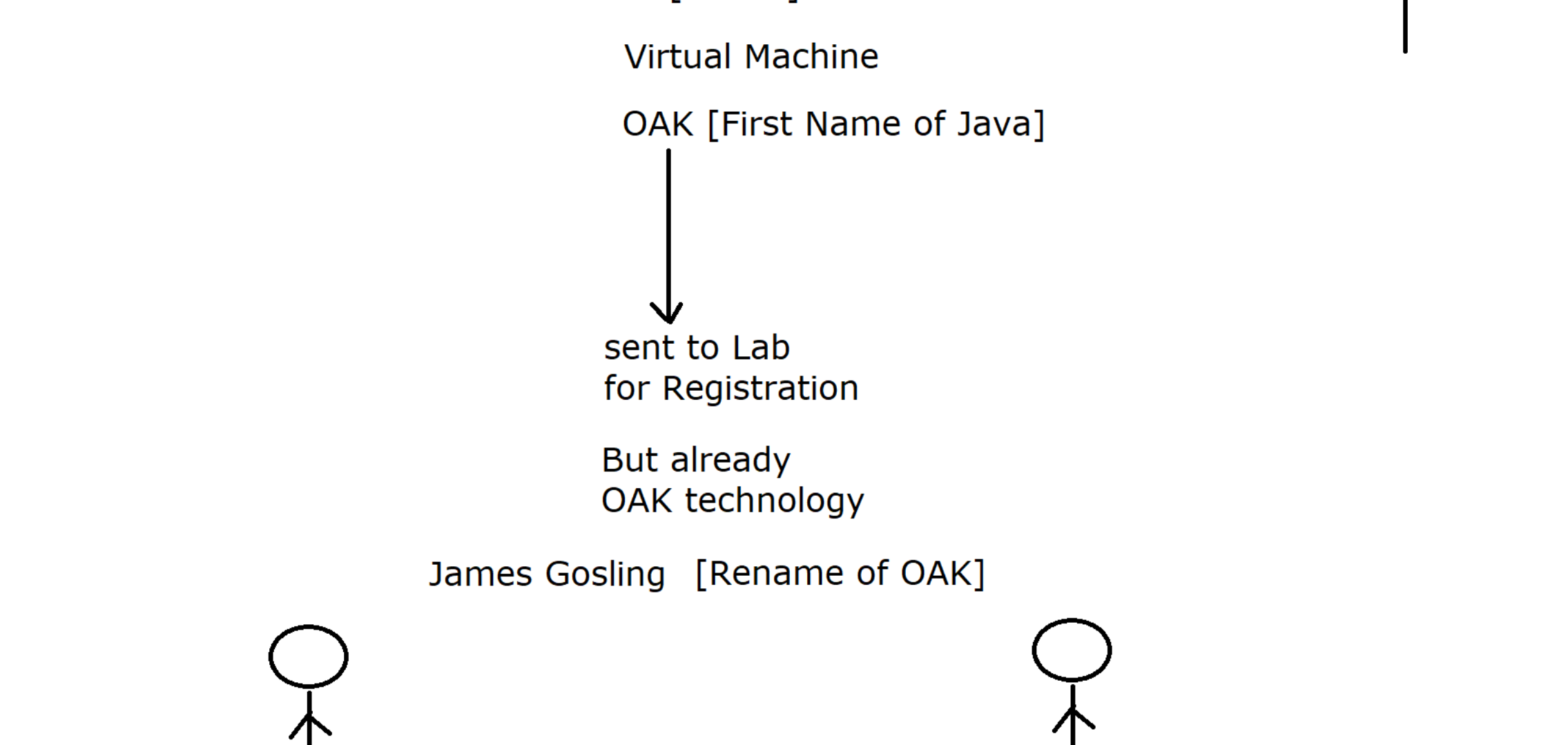
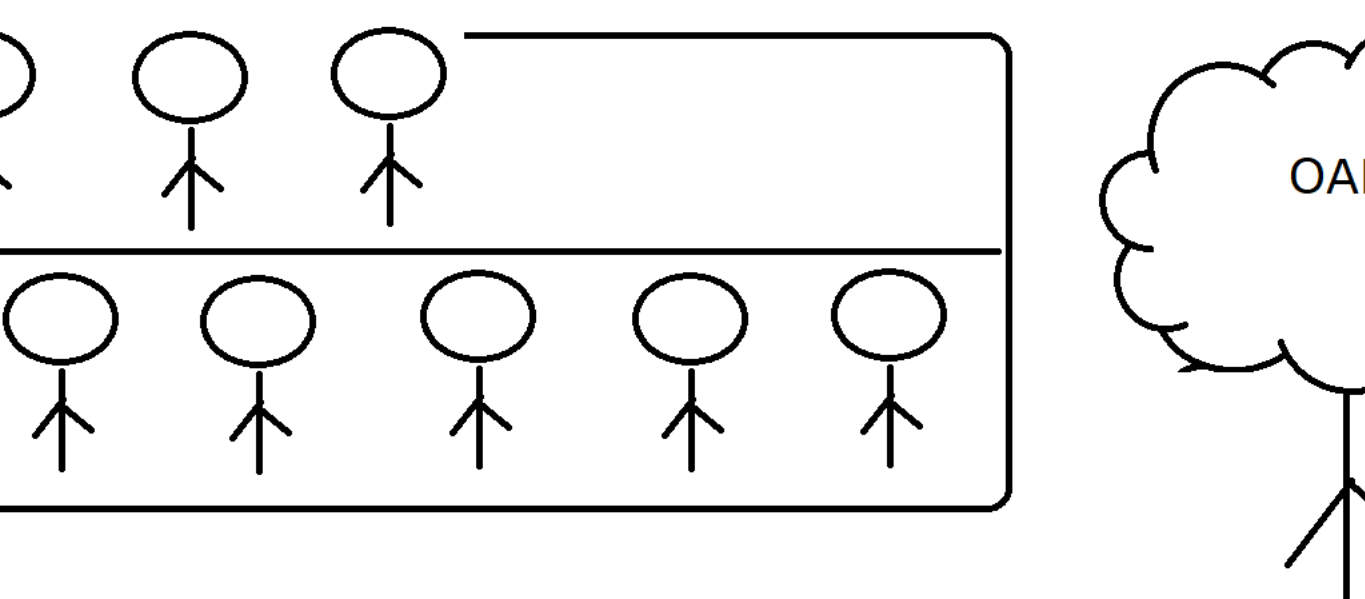
History of Java :

First name of Java : OAK [Tree Name]  
First version Date : 23rd January 1996 [JDK 1.0]  
Project Name : Green Project  
Developed By : James Gosling and his team members  
Java : Name of island, Indonesia  
Official Symbol : Coffee Cup  
Organization : Sun microsystem [Now Oracle Corporation]

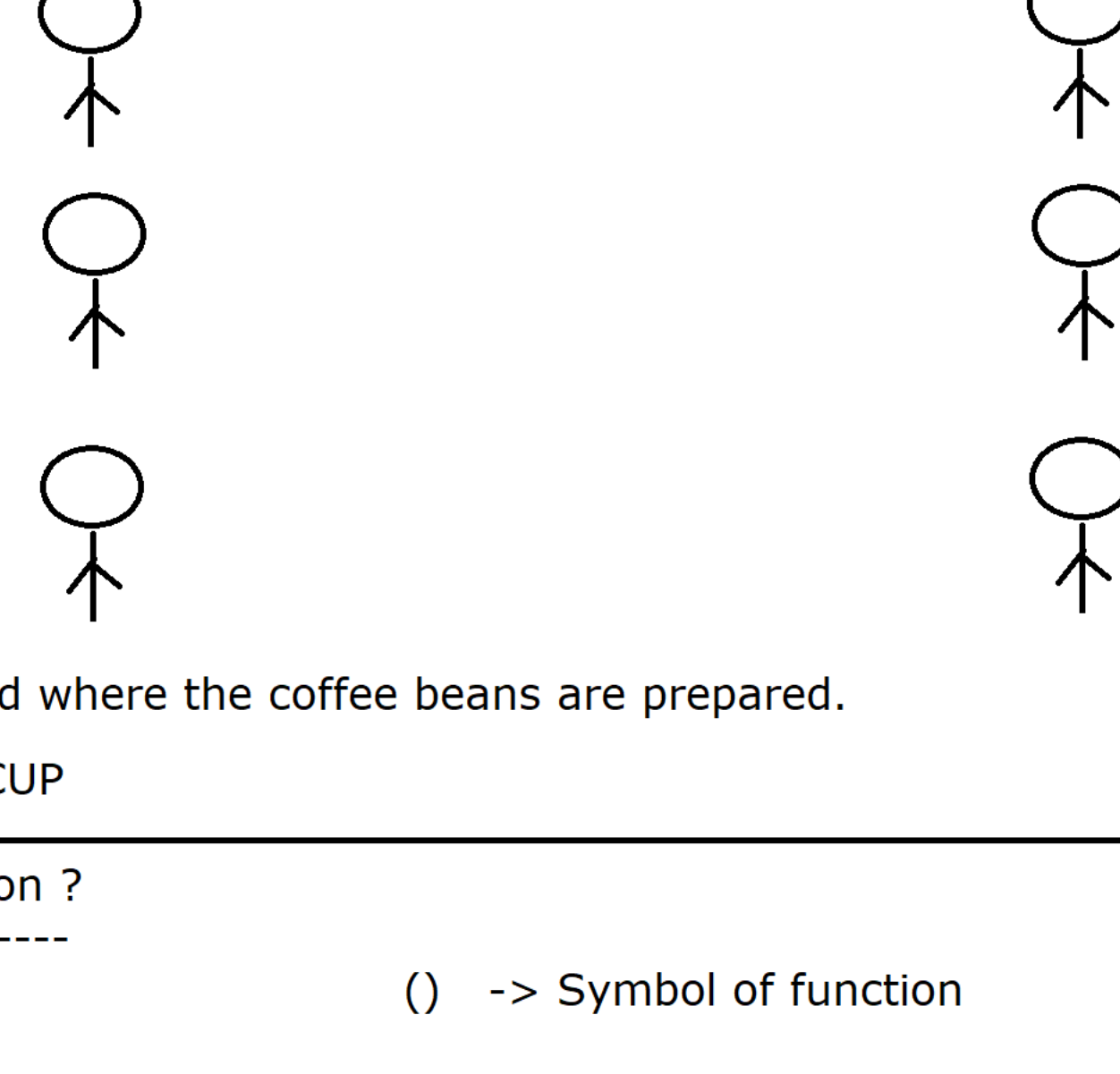


Can you create a common remote control ?

C and C++ : Failed



James Gosling [Rename of OAK]

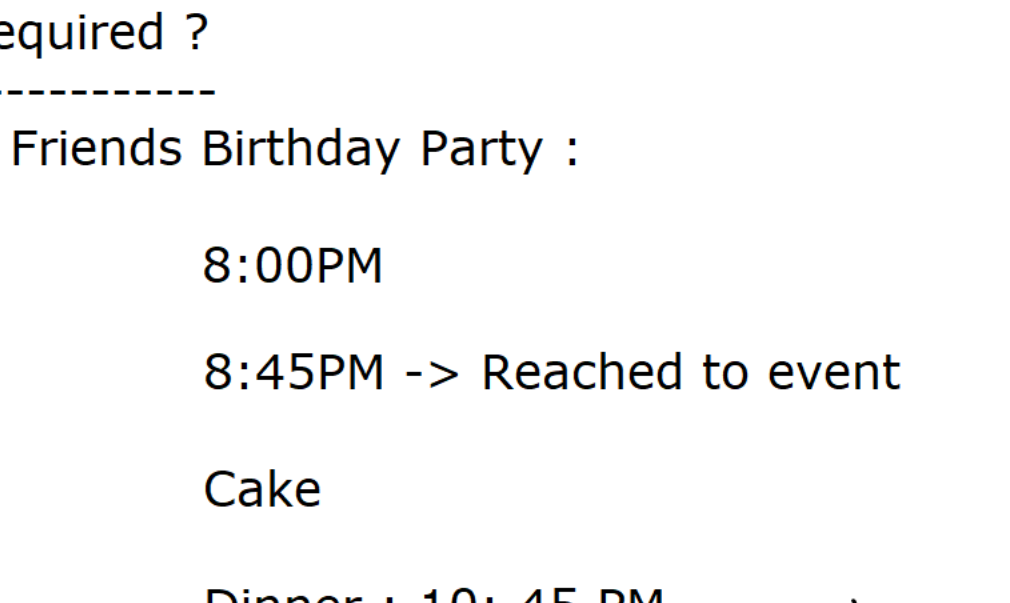


Java is an island where the coffee beans are prepared.

Java : Coffee CUP

What is a function ?

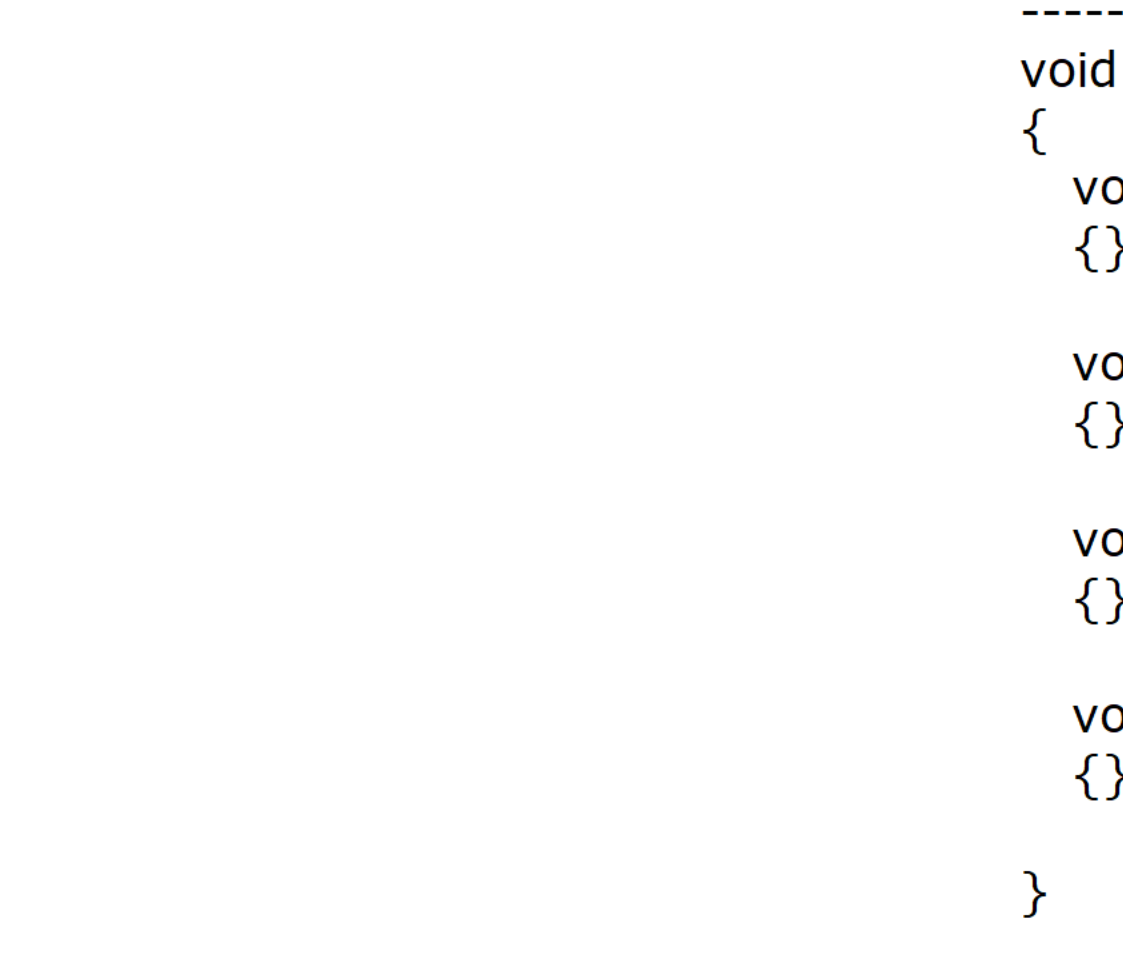
() -> Symbol of function



Why function is required ?

Best Friends Birthday Party :

8:00PM  
8:45PM -> Reached to event  
Cake  
Dinner : 10: 45 PM



Approach 01 :

```
void main()  
{  
  a + b;  
  a * b;  
  a / b;  
  a - b  
}
```

Approach 02 :

```
void main()  
{  
  void sum(int a , int b)  
  {}  
  void sub(int a , int b)  
  {}  
  void mul(int a , int b)  
  {}  
  void div(int a , int b)  
  {}  
}
```

Defination of a function :

\* A function is a self defined block which is mainly used for performing some operation, calculation OR printing the result.

Types of function :

\* A function is divided into two types :

- 1) Predefined OR Built-in function
- 2) User-defined OR Custom function

Predefined function :

\* The functions which are provided by language creator for making the program in a easy way to use called predefined function.

Example : printf(), scanf(), getch(), clrscr() and so on

User-defined function :

\* The functions which are developed by user for their own use and specification are called user defined function.

Example : main(), add(), sum(int x, int y) and so on

Note : main is a user defined function because the user is responsible to write the logic inside main method. Only the name is predefined so, our runtime environment can easily start the execution from main method.

Why we pass parameter to a function ?

\* We pass parameter to a function for getting more information ragarding the function, Without parameter we can have partial information.

Example :

```
void deposit(double amount)  
{  
}  
  
void doSum(int x, int y)  
{  
}  
  
void sleep(int hours)  
{  
}
```

Why function is called method in java ?

\* Few programming language support to write a function, inside a class as well as outside of the class.

```
public void m2()  
{  
}  
class Test  
{  
  public void m1()  
  {  
  }  
}
```

➡ **Function**

➡ **Method**

\* In java language, We **cannot** write a function outside of the class, that means each and every function must be written inside the class only that is the reason it is called **Method in java**.

Note :In java we don't have nested method concept that means we can't write a method inside another method.

Advantages of Function :