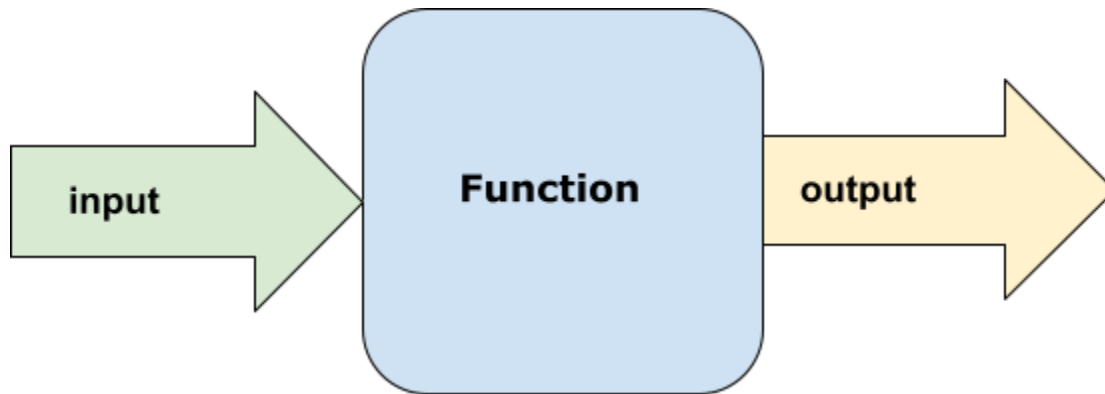


Functions

Function is a block of code which does a certain task.



Benefits of functions

- Increases readability
- Decreases repetitive code
- Simplifies testability

How the function call happens?

Caller -> the caller function of the called function

Callee -> the function which is being called

```
//callee
public static int add(int n1, int n2){

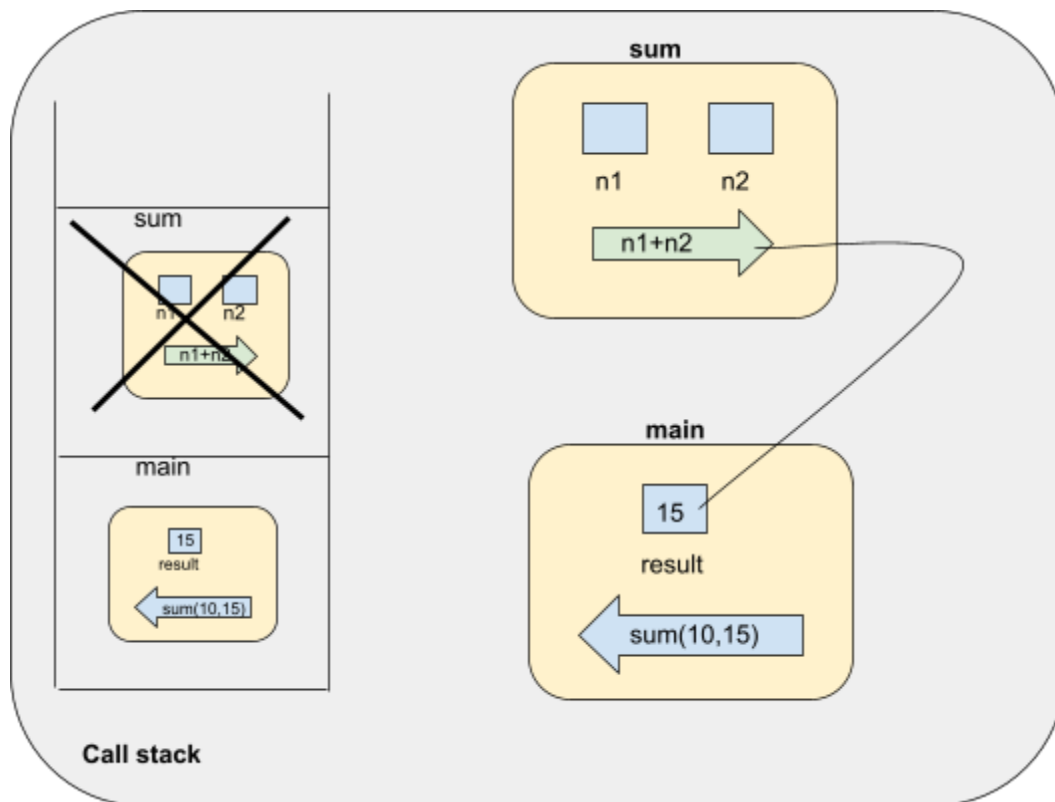
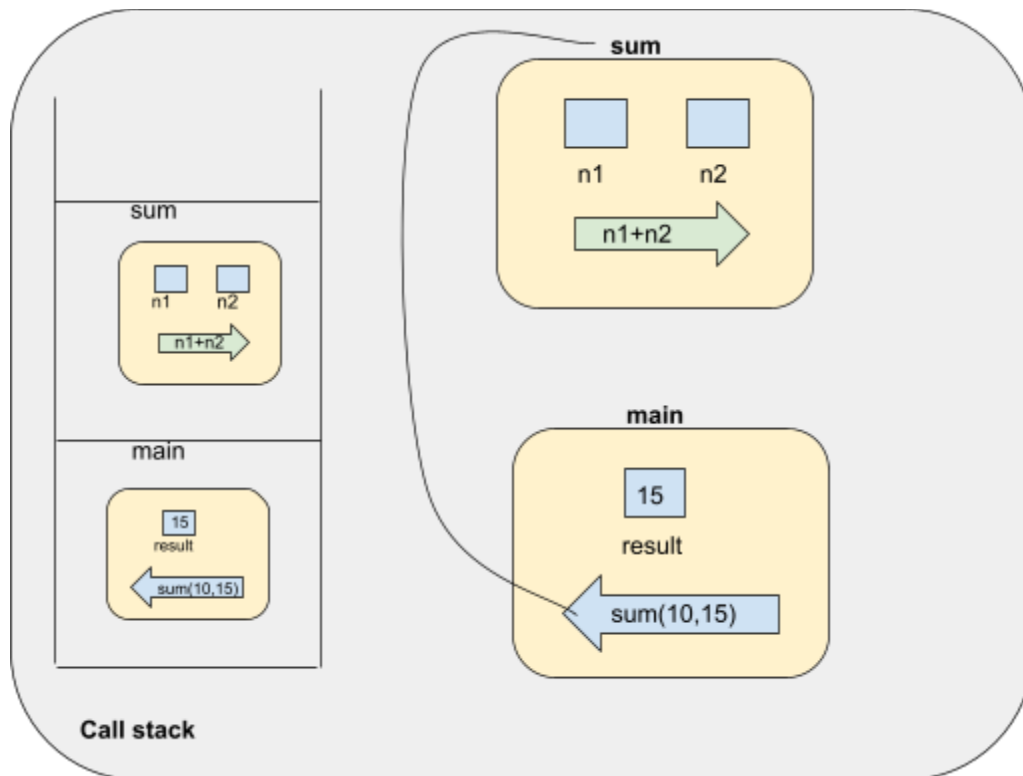
    return n1+n2;
}

//caller
public static void main(String[] args){

    int result = add(10,5);

}
```

The execution of the program starts from main, which is itself a function. All the function calls are stored in stack memory of the computer.



Pass by value

There is no pass by reference in java , in java every thing is pass by value.

```
public static void increment(int n){
    n++
}

public static void main(String[] args){

    int n = 10;
    increment(n);
    System.out.println(n);
}

//output:
// 10
```

Here the output is not 11 because here the value 10 is passed to the function increment not the reference of the variable in of main thats , so the increment stores 10 in its own variable 'n' and increments it , but that does not affect the variable 'n' of main

Function Overloading

Function with same name but either with different number of arguments or different types of argument.