

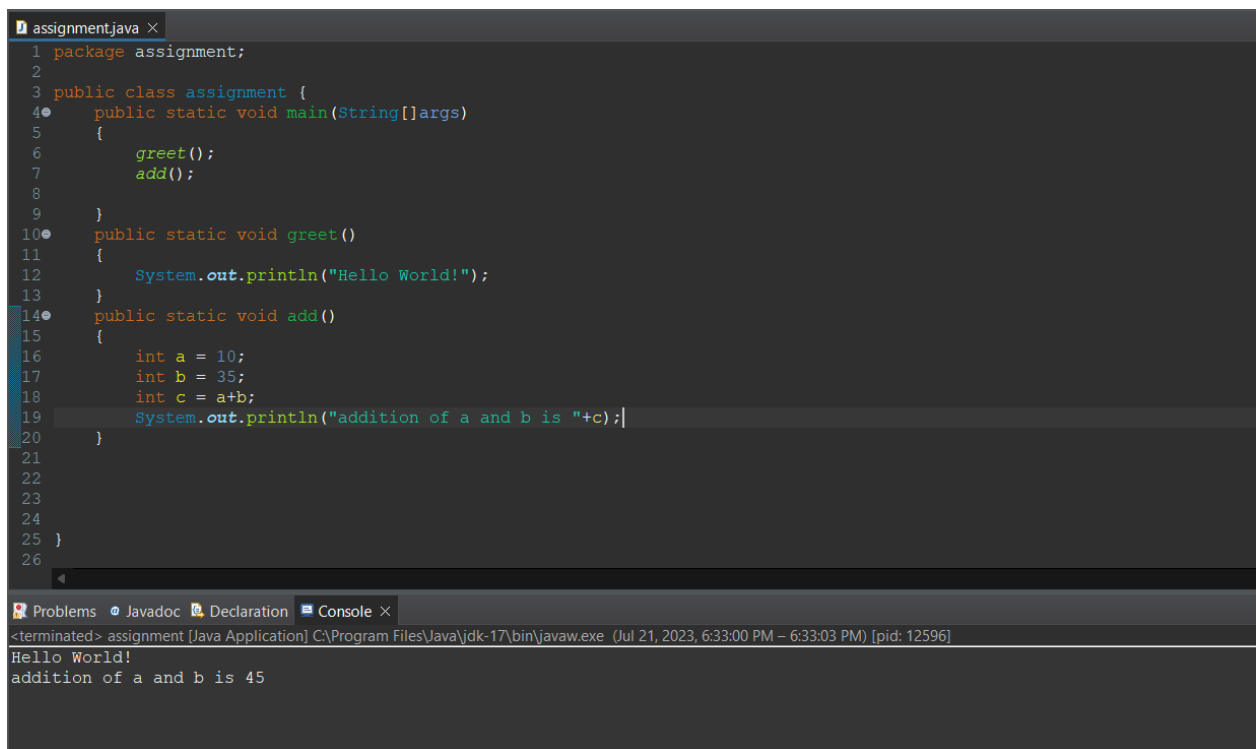
## METHODS IN JAVA

- ⇒ Methods are the set of statements used to perform a particular task.
- ⇒ If a method must be executed, it has to be called using its name.

### SYNTAX:

```
return type method Name(parameter)
{
    //Definition i.e. body of the method call
}
```

### EXAMPLE:



```
1 package assignment;
2
3 public class assignment {
4     public static void main(String[] args)
5     {
6         greet();
7         add();
8     }
9
10    public static void greet()
11    {
12        System.out.println("Hello World!");
13    }
14    public static void add()
15    {
16        int a = 10;
17        int b = 35;
18        int c = a+b;
19        System.out.println("addition of a and b is "+c);
20    }
21
22
23
24
25 }
26
```

Problems Javadoc Declaration Console

<terminated> assignment [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (Jul 21, 2023, 6:33:00 PM – 6:33:03 PM) [pid: 12596]

Hello World!

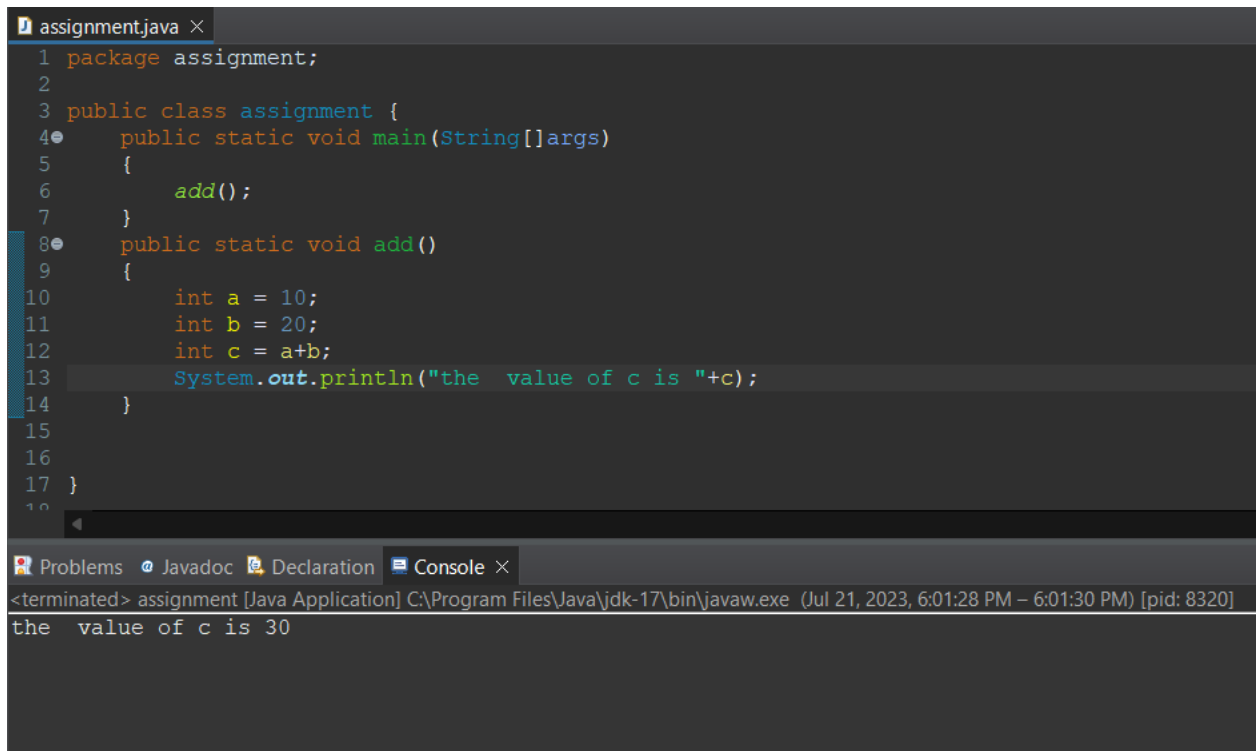
addition of a and b is 45

- ⇒ Based on whether a method is accepting a parameter and returning the value or not. Methods are classified into 4 types they are:-

## TYPE-1 METHOD:

Methods which would not accept any parameters and would not return any value is known to be type 1 method.

Example:



```
1 package assignment;
2
3 public class assignment {
4     public static void main(String[] args)
5     {
6         add();
7     }
8     public static void add()
9     {
10         int a = 10;
11         int b = 20;
12         int c = a+b;
13         System.out.println("the value of c is "+c);
14     }
15 }
16
17 }
18
```

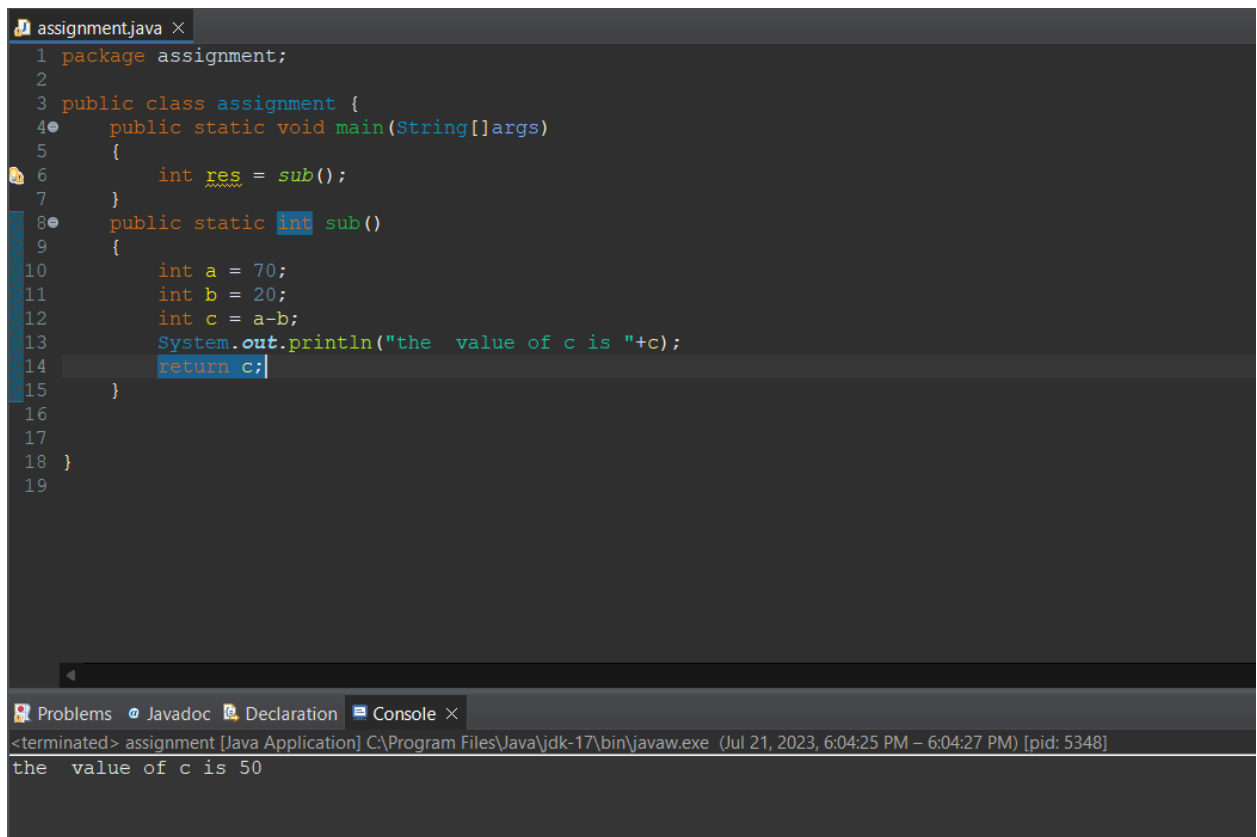
Problems Javadoc Declaration Console ×

<terminated> assignment [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (Jul 21, 2023, 6:01:28 PM – 6:01:30 PM) [pid: 8320]

the value of c is 30

## TYPE-2 METHOD:

Methods which would not accept any parameters and would return a value is known to be type 2 method.

A screenshot of an IDE window titled 'assignment.java'. The code defines a package 'assignment' and a public class 'assignment'. The 'main' method calls 'sub()' and stores the result in 'res'. The 'sub' method calculates 'c = a - b' (70 - 20) and returns 'c'. The console output shows 'the value of c is 50'.

```
1 package assignment;
2
3 public class assignment {
4     public static void main(String[] args)
5     {
6         int res = sub();
7     }
8     public static int sub()
9     {
10        int a = 70;
11        int b = 20;
12        int c = a-b;
13        System.out.println("the value of c is "+c);
14        return c;
15    }
16
17
18 }
19
```

Problems Javadoc Declaration Console ×

<terminated> assignment [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (Jul 21, 2023, 6:04:25 PM – 6:04:27 PM) [pid: 5348]

the value of c is 50

### **TYPE-3 METHOD:**

Methods which would accept any parameters and would not return a value is known to be type 3 method.

```
assignment.java ×
1 package assignment;
2
3 public class assignment {
4     public static void main(String[] args)
5     {
6         int x = 70;
7         int y = 20;
8         mul(x,y);
9
10    }
11    public static void mul(int a,int b)
12    {
13
14        int c = a*b;
15        System.out.println("the value of c is "+c);
16
17    }
18
19
20 }
21
```

Problems Javadoc Declaration Console ×

<terminated> assignment [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (Jul 21, 2023, 6:08:22 PM – 6:08:24 PM) [pid: 9340]  
the value of c is 1400

### **TYPE-4 METHOD:**

Methods which would accept any parameters and would return a value is known to be type 4 method.

```
assignmentjava ×
1 package assignment;
2
3 public class assignment {
4     public static void main(String[] args)
5     {
6         int x = 70;
7         int y = 2;
8         int res = div(x,y);
9         System.out.println("result value is "+res);
10    }
11
12    public static int div(int a,int b)
13    {
14
15        int c = a/b;
16        System.out.println("the value of c is "+c);
17        return c;
18    }
19
20 }
21
22
```

Problems Javadoc Declaration Console ×

<terminated> assignment [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (Jul 21, 2023, 6:12:36 PM – 6:12:38 PM) [pid: 2212]

the value of c is 35  
result value is 35