



Programmer

A TOOL FOR CONVERTING CAFFEINE INTO CODE

[#] PCBoots Labs

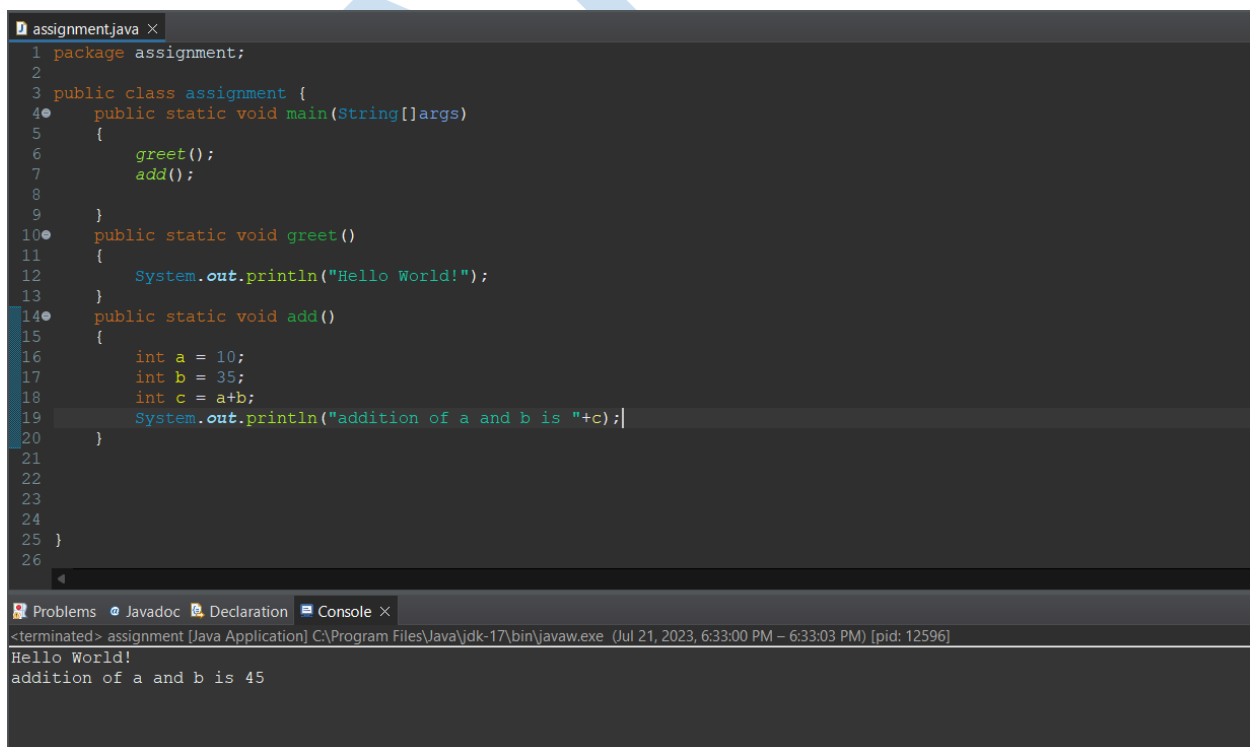
METHODS IN JAVA

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

SYNTAX:

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

EXAMPLE:



The screenshot shows an IDE window titled 'assignment.java'. The code defines a package 'assignment', a class 'assignment', and three methods: 'main', 'greet', and 'add'. The 'main' method calls 'greet' and 'add'. The 'greet' method prints 'Hello World!'. The 'add' method calculates the sum of 10 and 35 and prints the result. The console output at the bottom shows the execution results: 'Hello World!' and 'addition of a and b is 45'.

```
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!

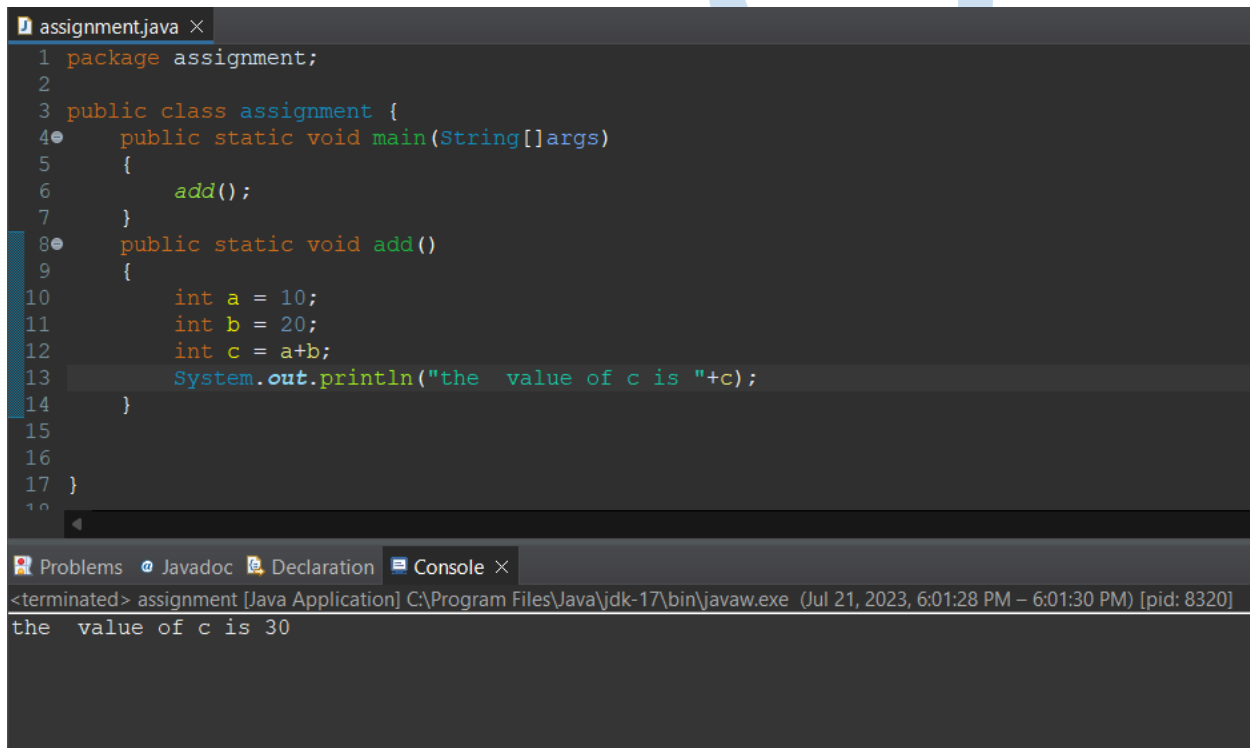
addition of a and b is 45

- ⇒ 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:



```
assignment.java ×
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
```

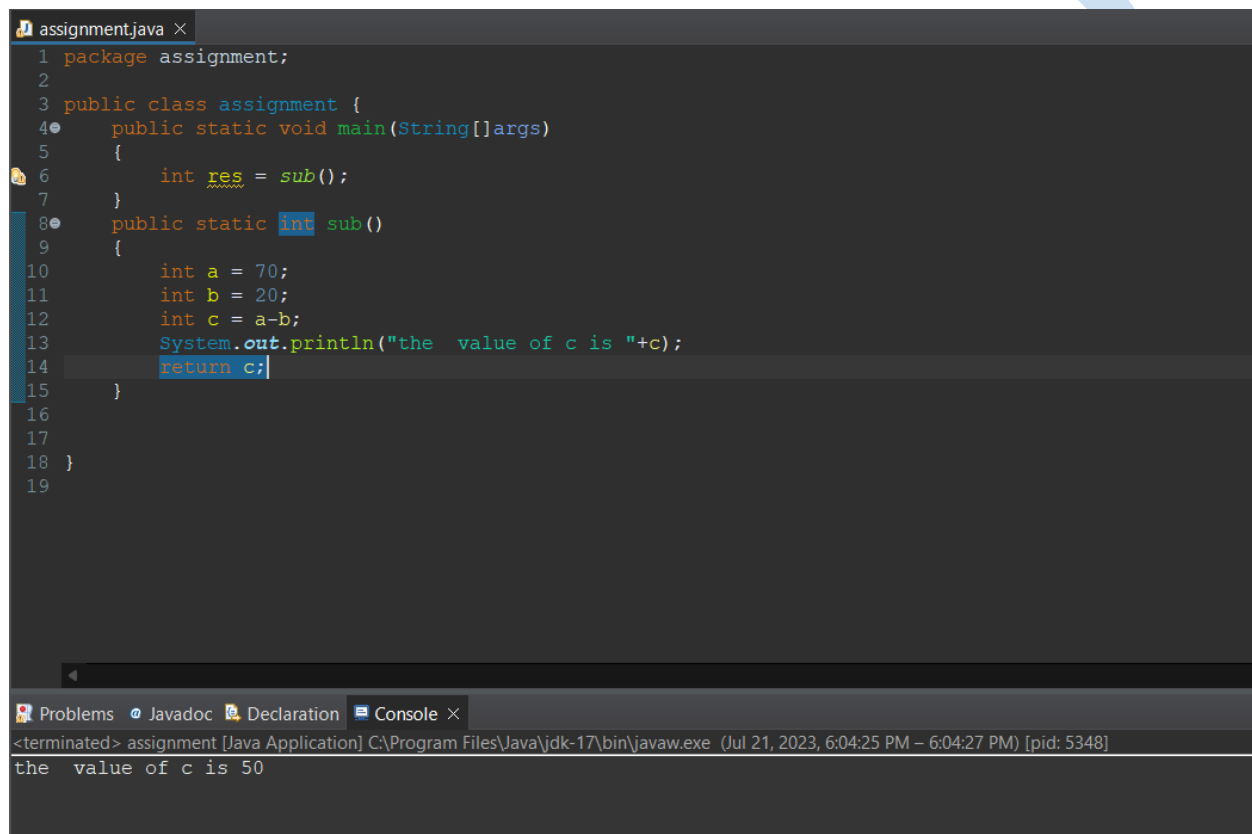
Problems Javadoc Declaration Console ×

<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.



```
assignment.java ×
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
```

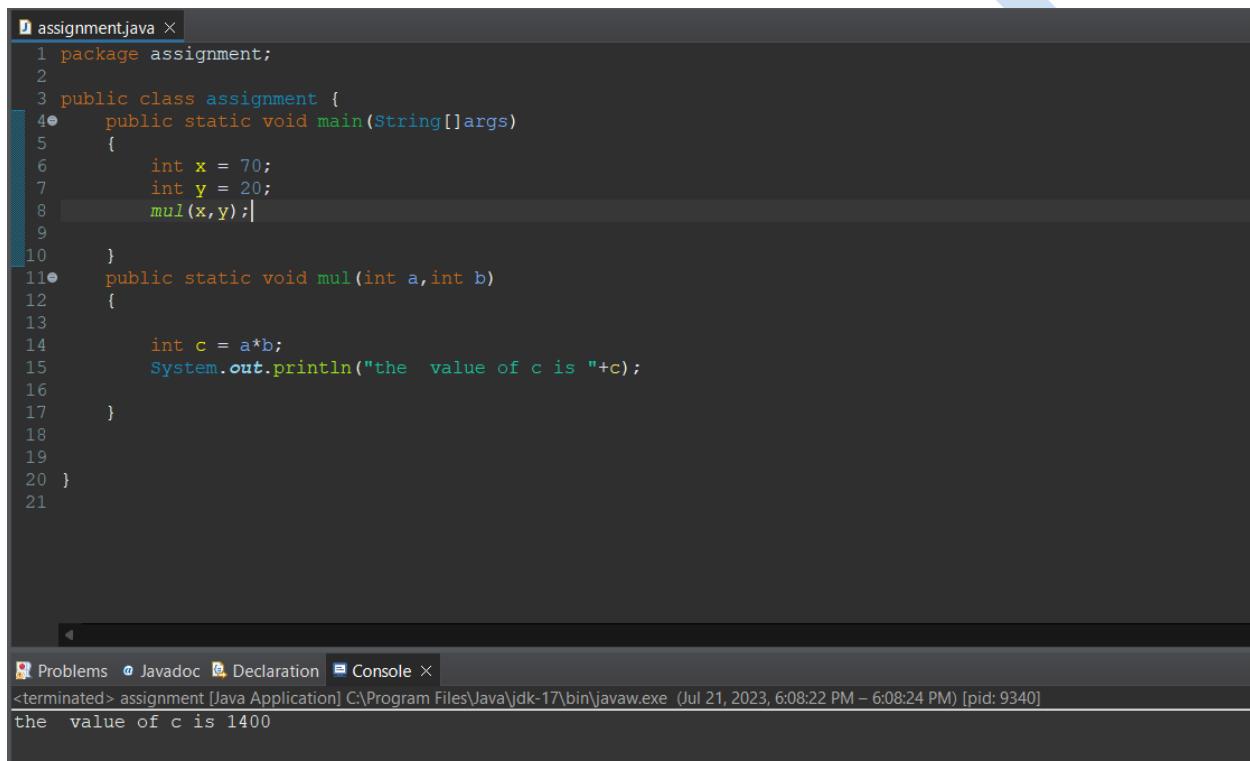
Problems Javadoc Declaration Console ×

<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.



The screenshot shows an IDE window titled "assignment.java". The code defines a package "assignment" and a class "assignment". The class has two methods: a "main" method that initializes variables "x" and "y" to 70 and 20, and a "mul" method that takes two integers "a" and "b" and returns their product. The "main" method calls "mul(x, y)". The console output shows the result of the multiplication: "the value of c is 1400".

```
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
```

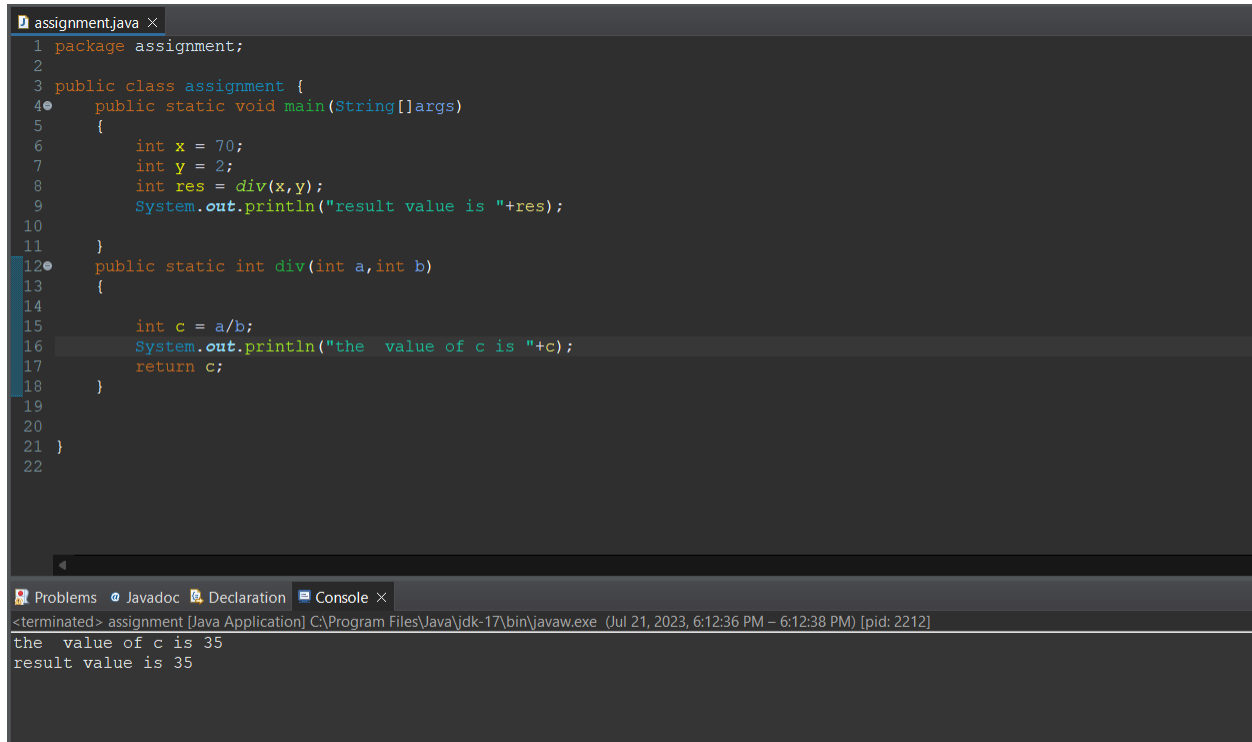
Problems Javadoc Declaration Console ×

<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.



The screenshot shows an IDE window titled 'assignment.java'. The code defines a package 'assignment' and a public class 'assignment'. Inside the class, there is a 'main' method that initializes variables 'x' (70) and 'y' (2), calls a 'div' method, and prints the result. The 'div' method takes two integers 'a' and 'b' and returns their quotient 'c' (35). The console output at the bottom shows the execution results: 'the value of c is 35' and 'result value is 35'.

```
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

HAPPINESS IS



**...when your code
runs without error.**