

Declaration: we are just creating a variable (`int l;`)

Initialization: Assigning some value (`l=10;`)

Note

Parameterized method

We should never initialize a method parameter at the time of its declaration

void meth1() ----non -para

void meth1(int i, string s)----para

void meth1(int i=1,string s="HI")----in valid

<pre>void meth1() //NON-Para { } </pre>	<pre>void meth4(int a,int b, char c) { //VALID } </pre>	<pre>void meth7(byte b, double d) { //VALID } </pre>
<pre>void meth2(int i) { // VALID } </pre>	<pre>void meth5(String s) { //VALID } </pre>	<pre>void meth8() //NON-Para { } </pre>
<pre>void meth3(int i=10, String s) { //IN-VALID } </pre>	<pre>void meth6(String s="Java", float f) { //IN-VALID } </pre>	<pre>void meth9(int i, short s) { // VALID } </pre>

The screenshot shows an IDE with two tabs: 'ClassA.java' and 'ClassB.java'. The 'ClassA.java' tab is active, displaying the following code:

```
1 package com.pack1;
2
3 public class ClassA
4 {
5     void meth1()
6     {
7         System.out.println("Java is awesome!!!");
8     }
9     public static void main(String[] args)
10    {
11        new ClassA().meth1();
12
13        ClassA aobj=new ClassA();
14        aobj.meth1();
15    }
16 }
17
18
19
20
21
22
23
24
```

The 'Console' tab on the right shows the output of the program:

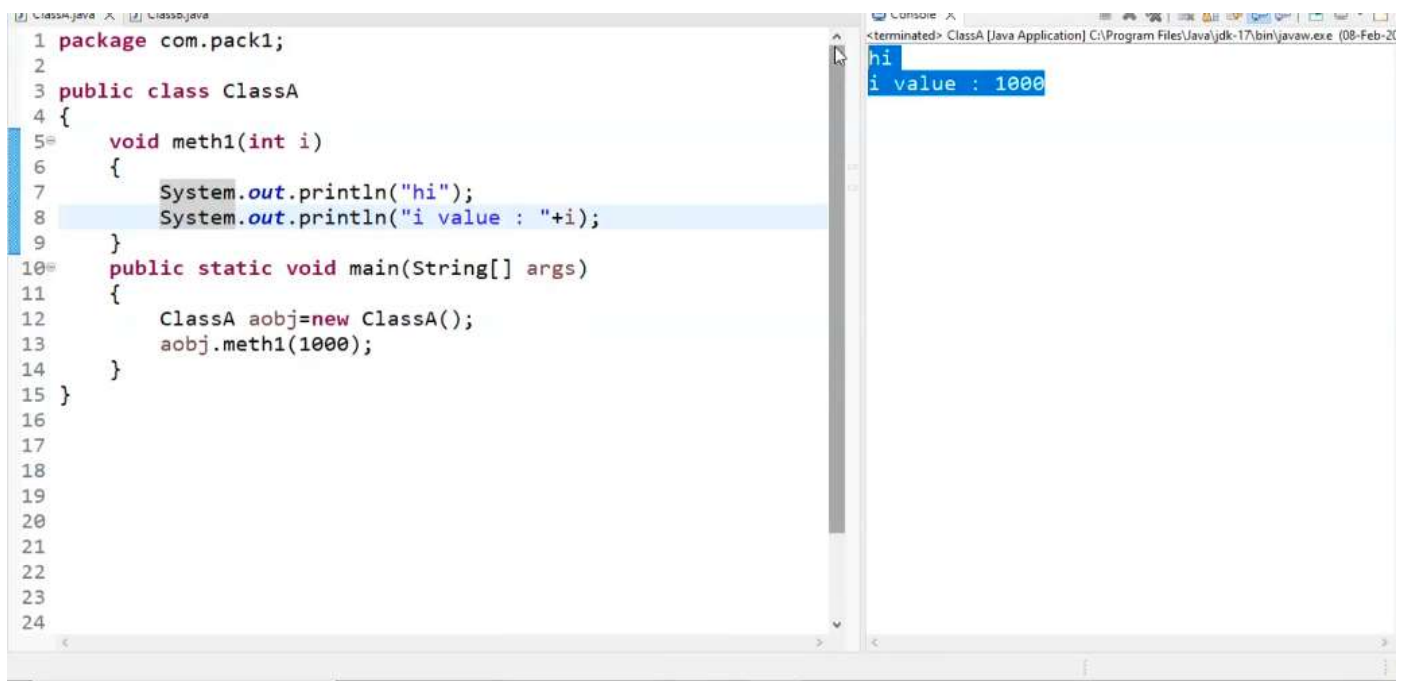
```
<terminated> ClassA [Java Application] C:\Program Files\
Java is awesome!!!
Java is awesome!!!
```

Inside the parenthesis () we should write the parameters

Main method is a parameterized method which has one parameter string array `void static main(String[] args)`

Q) How to pass values for the method parameters?

A) We need to initialize a method parameter whenever are calling a method.



The screenshot shows a Java IDE with two windows. The left window, titled 'ClassA.java', contains the following code:

```
1 package com.pack1;
2
3 public class ClassA
4 {
5     void meth1(int i)
6     {
7         System.out.println("hi");
8         System.out.println("i value : "+i);
9     }
10    public static void main(String[] args)
11    {
12        ClassA aobj=new ClassA();
13        aobj.meth1(1000);
14    }
15 }
16
17
18
19
20
21
22
23
24
```

The right window, titled 'Console', shows the output of the program:

```
<terminated> ClassA [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (08-Feb-2024)
hi
i value : 1000
```

```
1 2
3 public class ClassA
4 {
5     void meth1(int a, String s) // meth4() a=10 s="Hello World"
6     {
7         System.out.println(a+a);
8         System.out.println("a");
9         System.out.println('a');
10        System.out.println(a);
11        System.out.println("s : "+s);
12    }
13    void meth2(int a, int b) //main() a=5 b=10
14    {
15        System.out.println(a*a);
16        System.out.println(b);
17        new ClassA().meth4("Java is awesome");
18        new ClassA().meth3('A', 100);
19        System.out.println(a-b);
20    }
21    void meth3(char c, int a)
22    {
23        System.out.println(c);
24        System.out.println('c');
25        System.out.println(a);
26    }
27 }
```

Console <terminated> ClassA [Java Application]

```
Start
25
10
20
a
a
10
s : Hello World
Java is awesome
A
c
100
-5
End
```

```
16 System.out.println(b);
17 new ClassA().meth4("Java is awesome");
18 new ClassA().meth3('A', 100);
19 System.out.println(a-b);
20 }
21 void meth3(char c, int a) // meth2() c=A a=100
22 {
23     System.out.println(c);
24     System.out.println('c');
25     System.out.println(a);
26 }
27 void meth4(String s) // meth2() s="Java is awesome"
28 {
29     new ClassA().meth1(10, "Hello World");
30     System.out.println(s);
31 }
32 public static void main(String[] args)
33 {
34     System.out.println("Start");
35     new ClassA().meth2(5, 10);
36     System.out.println("End");
37 }
38 }
39
```

Console <terminated> ClassA [Java Application] C:

```
Start
25
10
20
a
a
10
s : Hello World
Java is awesome
A
c
100
-5
End
```

1 changed line

```

2
3 public class ClassB
4 {
5     void meth1(int x, int y, int z)
6     {
7         System.out.println(10);
8         new ClassB().meth2("Hi", 100);
9         System.out.println(10+x);
10        System.out.println(y);
11        System.out.println(10-z);
12    }
13    void meth2(String s, int num)
14    {
15        System.out.println(s);
16        System.out.println(num-20);
17        System.out.println(num);
18    }
19    void meth3(char c, int x, String s)
20    {
21        System.out.println(c);
22        new ClassB().meth1(5, 10, 6);
23        System.out.println(x/2);
24        System.out.println(30);
25        System.out.println(s);
26    }

```



```

10     System.out.println(y);
11     System.out.println(10-z);
12 }
13 void meth2(String s,int num)
14 {
15     System.out.println(s);
16     System.out.println(num-20);
17     System.out.println(num);
18 }
19 void meth3(char c, int x, String s)
20 {
21     System.out.println(c);
22     new ClassB().meth1(5, 10, 6);
23     System.out.println(x/2);
24     System.out.println(30);
25     System.out.println(s);
26 }
27 public static void main(String[] args)
28 {
29     System.out.println("Start");
30     new ClassB().meth3('X', 50, "Hello");
31     System.out.println("End");
32 }
33 }

```