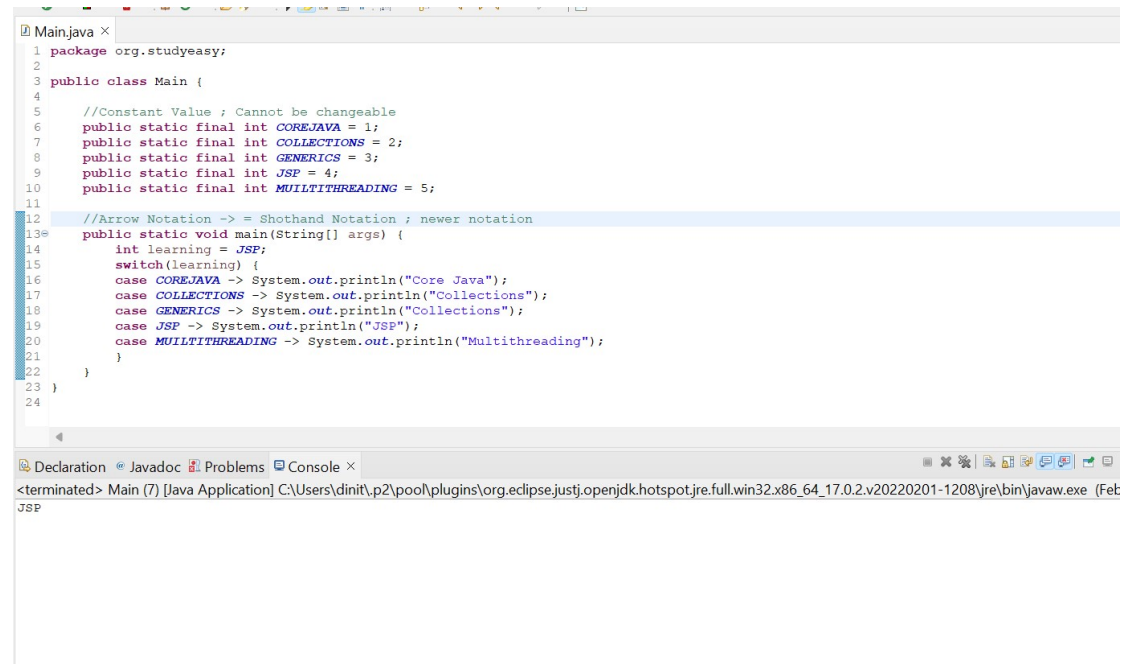


## ENUMS IN JAVA

Enum is a special type of variable or a special datatype.

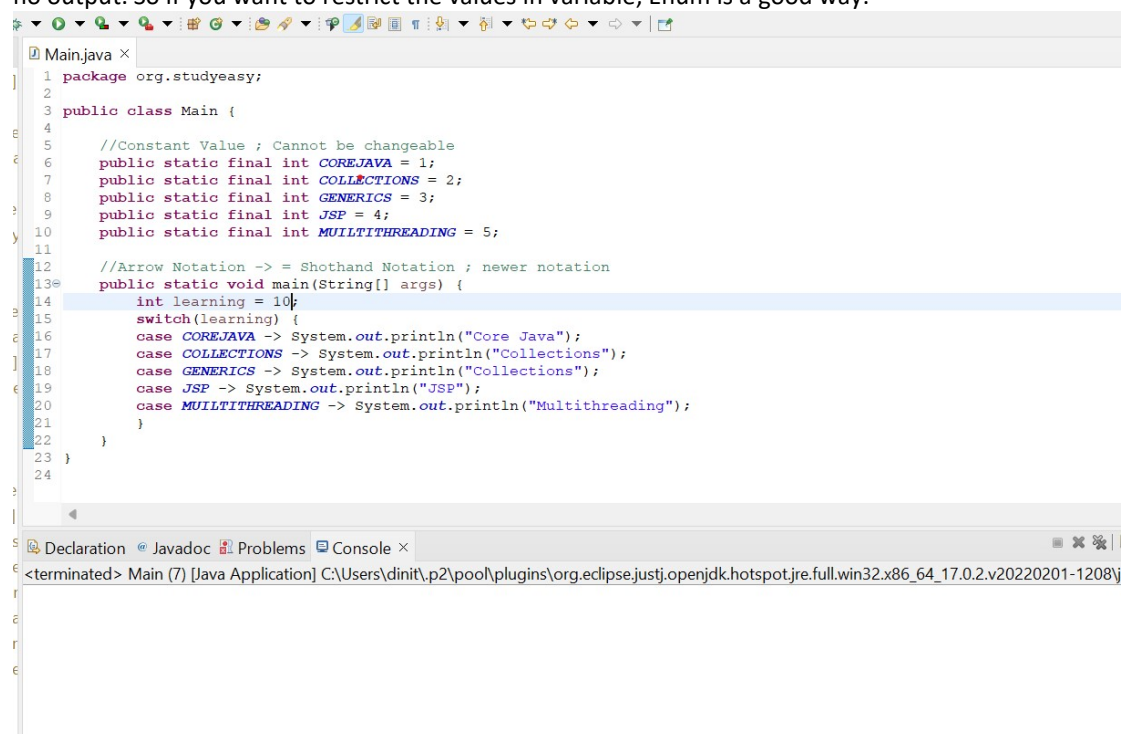


```
1 package org.studyeasy;
2
3 public class Main {
4
5     //Constant Value ; Cannot be changeable
6     public static final int COREJAVA = 1;
7     public static final int COLLECTIONS = 2;
8     public static final int GENERICS = 3;
9     public static final int JSP = 4;
10    public static final int MULTITHREADING = 5;
11
12    //Arrow Notation -> = Shorthand Notation ; newer notation
13    public static void main(String[] args) {
14        int learning = JSP;
15        switch(learning) {
16            case COREJAVA -> System.out.println("Core Java");
17            case COLLECTIONS -> System.out.println("Collections");
18            case GENERICS -> System.out.println("Collections");
19            case JSP -> System.out.println("JSP");
20            case MULTITHREADING -> System.out.println("Multithreading");
21        }
22    }
23 }
24
```

Declaration Javadoc Problems Console x

<terminated> Main (7) [Java Application] C:\Users\dinit\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.2.v20220201-1208\jre\bin\javaw.exe (Fet JSP

Let us try to change the value. You get output nothing. The value learning changed to 10, but you get no output. So if you want to restrict the values in variable, Enum is a good way.

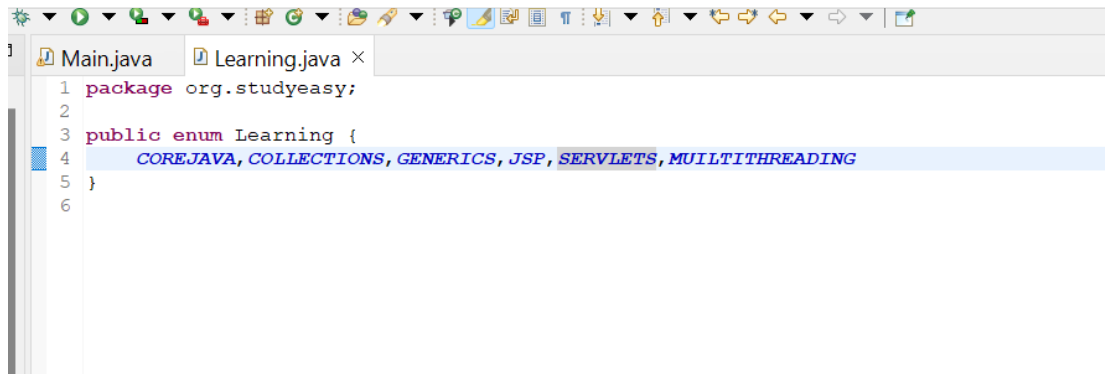


```
1 package org.studyeasy;
2
3 public class Main {
4
5     //Constant Value ; Cannot be changeable
6     public static final int COREJAVA = 1;
7     public static final int COLLECTIONS = 2;
8     public static final int GENERICS = 3;
9     public static final int JSP = 4;
10    public static final int MULTITHREADING = 5;
11
12    //Arrow Notation -> = Shorthand Notation ; newer notation
13    public static void main(String[] args) {
14        int learning = 10;
15        switch(learning) {
16            case COREJAVA -> System.out.println("Core Java");
17            case COLLECTIONS -> System.out.println("Collections");
18            case GENERICS -> System.out.println("Collections");
19            case JSP -> System.out.println("JSP");
20            case MULTITHREADING -> System.out.println("Multithreading");
21        }
22    }
23 }
24
```

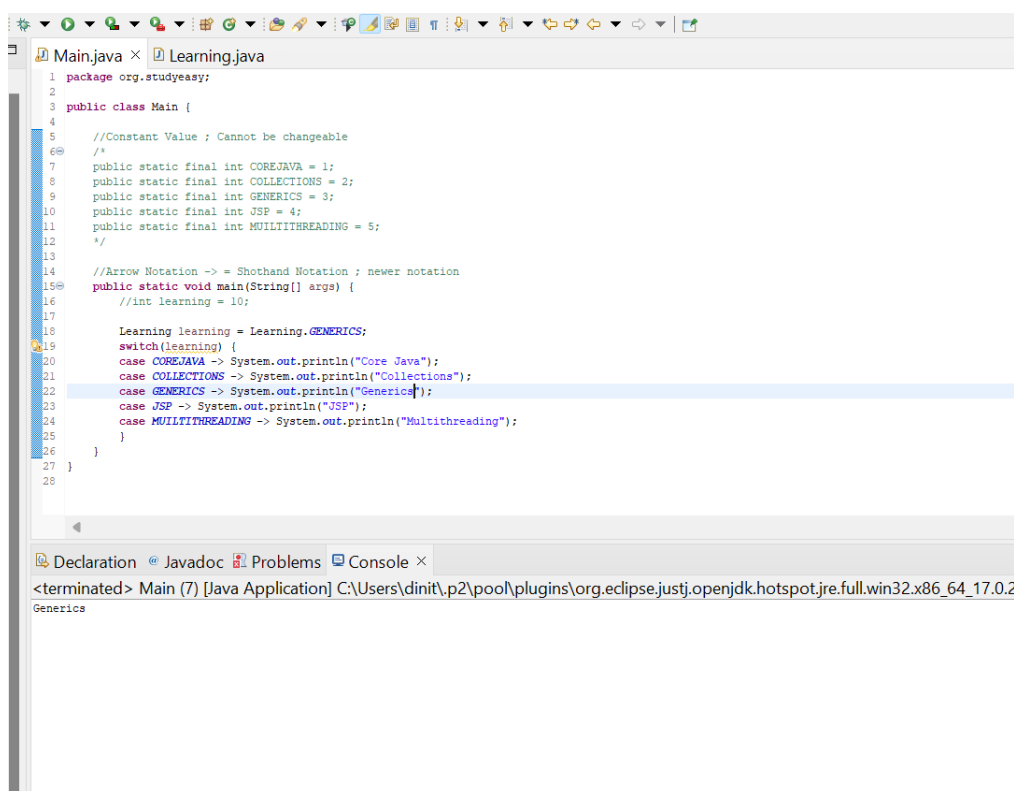
Declaration Javadoc Problems Console x

<terminated> Main (7) [Java Application] C:\Users\dinit\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.2.v20220201-1208\jre\bin\javaw.exe (Fet JSP

So let us try to create a Enum 'Learning'.



```
1 package org.studyeasy;
2
3 public enum Learning {
4     COREJAVA, COLLECTIONS, GENERICS, JSP, SERVLETS, MULTITHREADING
5 }
6
```



```
1 package org.studyeasy;
2
3 public class Main {
4
5     //Constant Value ; Cannot be changeable
6     /*
7     public static final int COREJAVA = 1;
8     public static final int COLLECTIONS = 2;
9     public static final int GENERICS = 3;
10    public static final int JSP = 4;
11    public static final int MULTITHREADING = 5;
12    */
13
14    //Arrow Notation -> = Shorthand Notation ; newer notation
15    public static void main(String[] args) {
16        //int learning = 10;
17
18        Learning learning = Learning.GENERICS;
19        switch(learning) {
20            case COREJAVA -> System.out.println("Core Java");
21            case COLLECTIONS -> System.out.println("Collections");
22            case GENERICS -> System.out.println("Generics");
23            case JSP -> System.out.println("JSP");
24            case MULTITHREADING -> System.out.println("Multithreading");
25        }
26    }
27 }
28
```

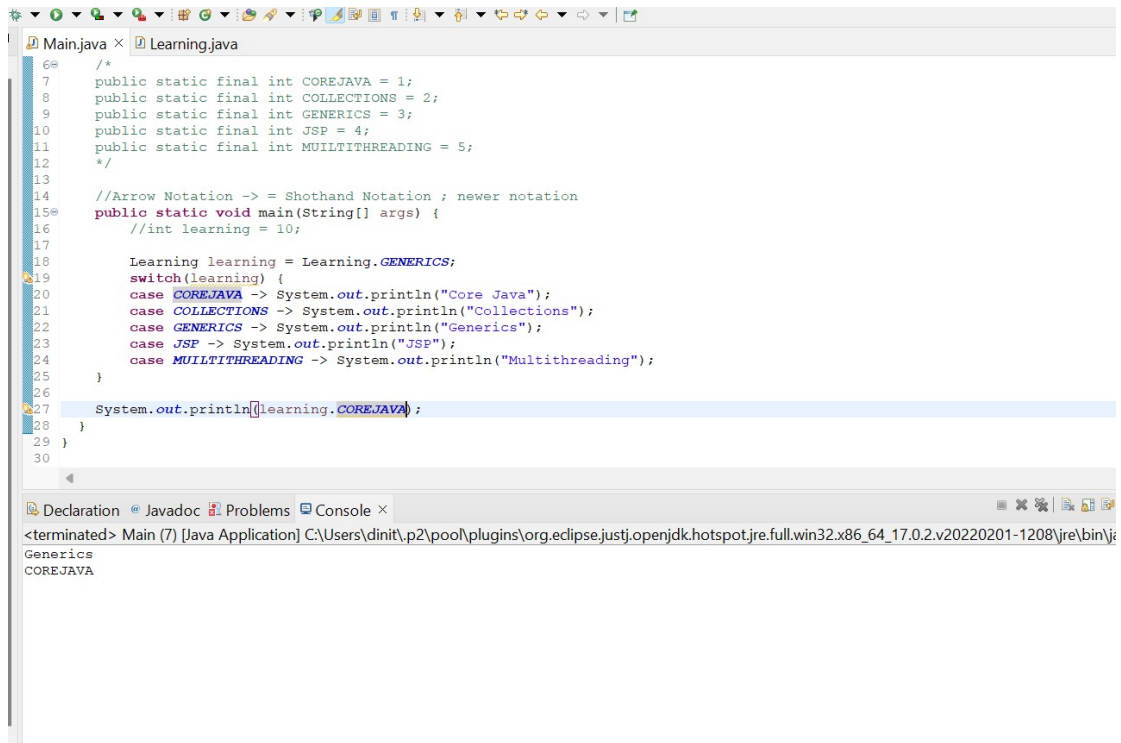
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<terminated> Main (7) [Java Application] C:\Users\dinit.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_17.0.2.

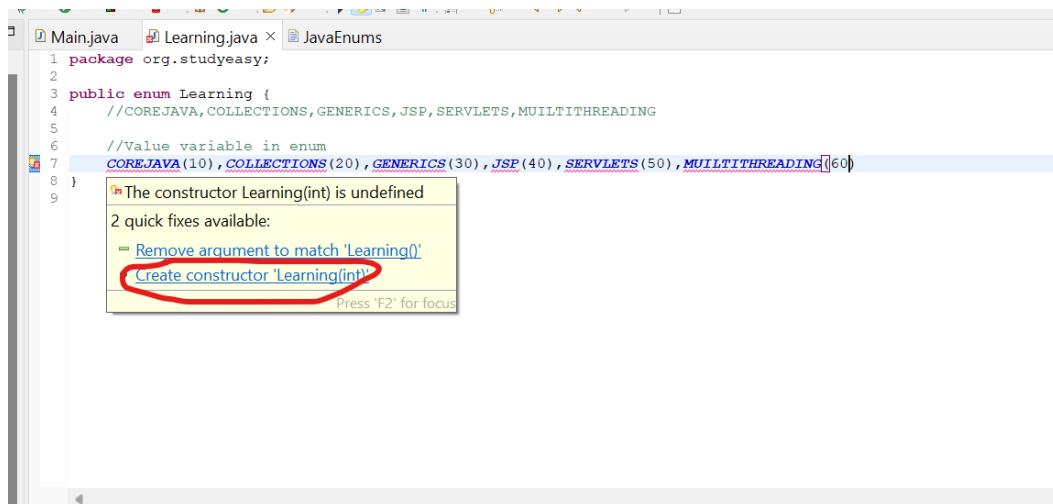
Generics

Now we want to know what is the expected value? It will contain the value as the name of the variable itself.

No getters



Defining Enums with value for each variable and a few snapshots which will tell you in detail.



```
1 package org.studyeasy;
2
3 public enum Learning {
4     //COREJAVA, COLLECTIONS, GENERICS, JSP, SERVLETS, MULTITHREADING
5
6     //Value variable in enum
7     COREJAVA(10), COLLECTIONS(20), GENERICS(30), JSP(40), SERVLETS(50), MULTITHREADING(60);
8
9     Learning(int i) {
10         // TODO Auto-generated constructor stub
11     }
12 }
13
```

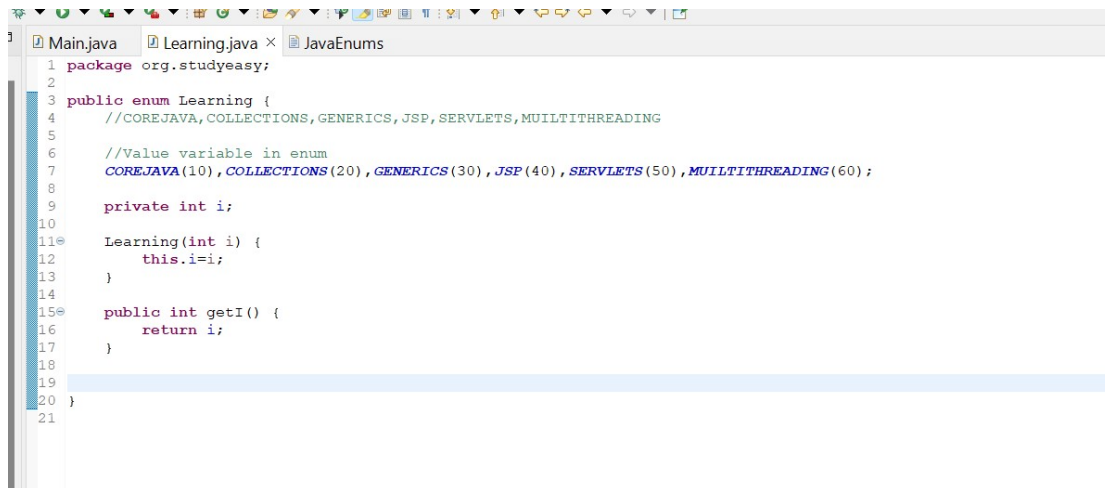
Try to run the main program. You get the same output. Constructor above is not properly constructed.

```
1 package org.studyeasy;
2
3 public class Main {
4
5     public static void main(String[] args) {
6         System.out.println(Learning.COLLECTIONS);
7     }
8 }
9
```

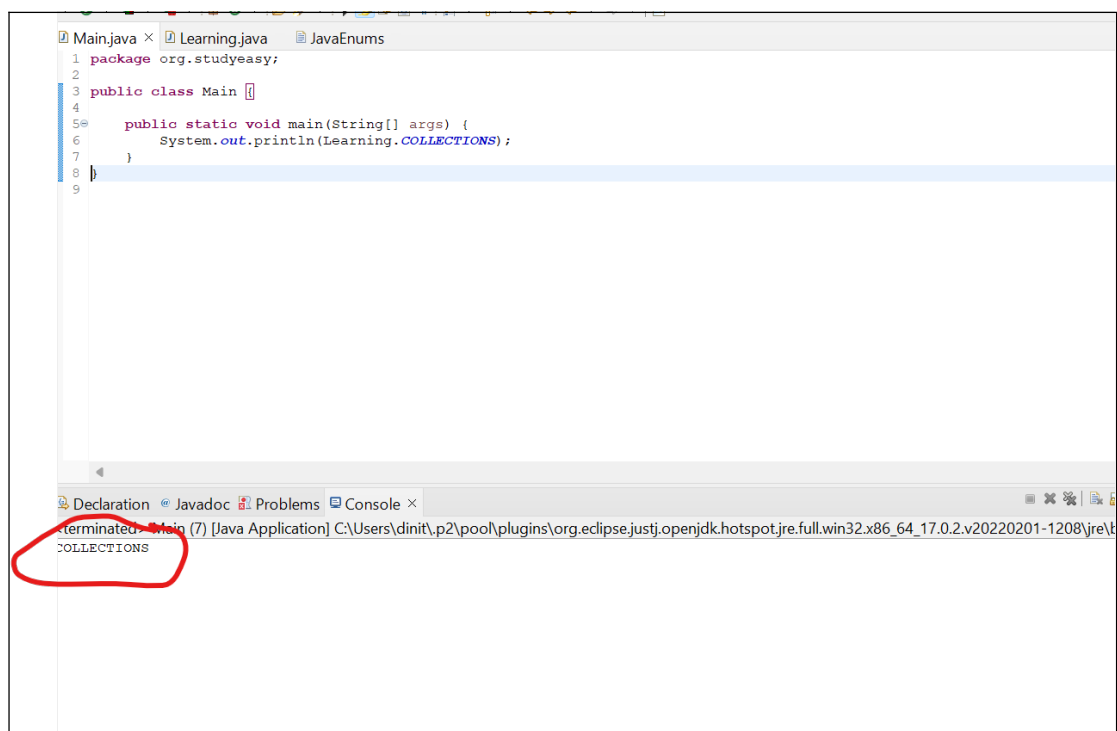
Still same %

```
<terminated> Main (7) [Java Application] C:\Users\dinit\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.2.v20220201-1208\jre\bin\java.exe
COLLECTIONS
```

Scenario 2 - Adding getter but still we get the same output.



```
1 package org.studyeasy;
2
3 public enum Learning {
4     //COREJAVA, COLLECTIONS, GENERICS, JSP, SERVLETS, MULTITHREADING
5
6     //Value variable in enum
7     COREJAVA(10), COLLECTIONS(20), GENERICS(30), JSP(40), SERVLETS(50), MULTITHREADING(60);
8
9     private int i;
10
11     Learning(int i) {
12         this.i=i;
13     }
14
15     public int getI() {
16         return i;
17     }
18
19 }
20
21
```



```
1 package org.studyeasy;
2
3 public class Main {
4
5     public static void main(String[] args) {
6         System.out.println(Learning.COLLECTIONS);
7     }
8 }
9
```

Declaration @ Javadoc Problems Console ×

terminated: Main (7) [Java Application] C:\Users\dinit\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.2.v20220201-1208\jre\bin\java.exe

COLLECTIONS

Solution Is we add a line like below pic. We get the output as expected.

```
1 package org.studyeasy;
2
3 public enum Learning {
4     //COREJAVA, COLLECTIONS, GENERICS, JSP, SERVLETS, MULTITHREADING
5
6     //Value variable in enum
7     COREJAVA(10), COLLECTIONS(20), GENERICS(30), JSP(40), SERVLETS(50), MULTITHREADING(60);
8
9     private int i;
10
11     Learning(int i) {
12         this.i=i;
13     }
14
15     public int getI() {
16         return i;
17     }
18
19 }
20
```

Declaration @ Javadoc Problems Console ×

<terminated> Main (7) [Java Application] C:\Users\dinit\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.2.v20220201-1208\jre\

10  
20  
60

```
1 package org.studyeasy;
2
3 public class Main {
4
5     public static void main(String[] args) {
6         //System.out.println(Learning.COLLECTIONS);
7
8         //This is how we get the value of variable in enum
9         System.out.println(Learning.COREJAVA.getI());
10        System.out.println(Learning.COLLECTIONS.getI());
11        System.out.println(Learning.MULTITHREADING.getI());
12    }
13 }
14
```

Declaration @ Javadoc Problems Console ×

<terminated> Main (7) [Java Application] C:\Users\dinit\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.2.v20220201-120

10  
20  
60