

```

1 package StringManipulations;
2
3 public class StringManipulation {
4
5     public static void main(String[] args) {
6
7         String str = "hi this is my java code and i am so happy";
8
9         System.out.println(str.length()); //41
10
11         System.out.println("Li = " + 0);
12         System.out.println("Hi = " + (str.length()-1));
13
14     }
15 }
16
17
18
19
20

```

Console Output:

```

41
Li = 0
Hi = 40

```

Character at index-

```

16         System.out.println(str.charAt(0));
17         System.out.println(str.charAt(2));
18

```

Try accessing out of index-

```

18         System.out.println(str.charAt(40));
19         System.out.println(str.charAt(41));

```

```

Exception in thread "main" java.lang.StringIndexOutOfBoundsException: String index out of range: 41
    at java.base/java.lang.StringLatin1.charAt(StringLatin1.java:48)
    at java.base/java.lang.String.charAt(String.java:711)
    at StringManipulations.StringManipulation.main(StringManipulation.java:19)

```

Negative index-

```

20         System.out.println(str.charAt(-1));

```

```
Exception in thread "main" java.lang.StringIndexOutOfBoundsException: String index out of
    at java.base/java.lang.StringLatin1.charAt(StringLatin1.java:48)
    at java.base/java.lang.String.charAt(String.java:711)
    at StringManipulations.StringManipulation.main(StringManipulation.java:20)
```

Index of –

```
22 System.out.println(str.indexOf('h'));
```

0

Index of character which comes first-

```
23 System.out.println(str.indexOf('i'));
```

1

Second occurrence-

```
25 System.out.println(str.indexOf('i', 2)); //2nd occurrence of i
```

5

Second occurrence without hard coding-

```
25 System.out.println(str.indexOf('i', str.indexOf('i')+1 )); //2nd occurrence of i
```

5

Third occurrence-

```
27
28 int p2 = str.indexOf('i', str.indexOf('i')+1);
29 System.out.println(p2);
30
31 System.out.println(str.indexOf('i', p2+1));
32
```

8

One liner code-

```
33 System.out.println(str.indexOf('i', str.indexOf('i', str.indexOf('i')+1)+1)); //8
```

paste string4-

```

1 package com.day25;
2
3 public class string4 {
4
5     public static void main(String[] args) {
6
7         String str = "hi this is my java code and i am so happy";
8
9         //index of function.
10        //takes in character or string, and start index if needed.
11        int i1=str.indexOf("h");
12        System.out.println(i1); //0
13
14        //index of character occurring multiple times.
15        //the first occurrence location is given.
16
17        int i2=str.indexOf("a");
18        System.out.println(i2); //15
19
20        //index of character not present.
21        int i3=str.indexOf("z");
22        System.out.println(i3); //-1
23
24        //print second occurrence.
25        //give the location from where to start in second parameter.
26        int i4= str.indexOf("a", 16);
27        System.out.println(i4); //17
28

```

```

26        int i4= str.indexOf("a", 16);
27        System.out.println(i4); //17
28
29        //Second occurrence without hard coding
30        //give the location from where to start in second parameter.
31        int i5=str.indexOf("a", str.indexOf("a")+1);
32        System.out.println(i5); //17
33
34        //Third occurrence-
35        int i6=str.indexOf("a", str.indexOf("a", str.indexOf("a")+1)+1);
36        System.out.println(i6); //24
37
38        //third occurrence.
39        int i7=str.indexOf("a", str.indexOf("a")+1);
40        System.out.println(i7); //17
41
42        int i8=str.indexOf('a', i7+1);
43        System.out.println(i8); //24
44        System.out.println(i8); //24

```

```

43      System.out.println(i8);//24
44      System.out.println(i8); //24
45
46      //one liner code for index of.
47      //third occurrence.
48      int i9=str.indexOf("a", str.indexOf("a", str.indexOf("a")+1)+1);
49      System.out.println(i9);//24
50
51  }
52 }
53

```

index of word also possible-

```
System.out.println(str.indexOf("java"));
```

14

index of word not present-

```
System.out.println(str.indexOf("python"));
```

-1

paste string5-

```

1 package com.day25;
2
3 public class string5 {
4
5     public static void main(String[] args) {
6
7         String str = "hi this is my java code and i am so happy";
8
9         //index of function.
10        //takes in character or string, and start index if needed.
11        int i1=str.indexOf("java");
12        System.out.println(i1); //14
13
14        //index of word which is not present.
15        int i2=str.indexOf("javaa");
16        System.out.println(i2); //-1
17
18        //change case sensitive and check if word present.
19        int i3=str.indexOf("JAVA");
20        System.out.println(i3); //-1
21
22    }
23 }

```

check if word or character present in string using index of-

```

37
38     String mesg = "welcome admin";
39
40     if(mesg.indexOf("admin")>0) {
41         System.out.println("admin is present");
42     }
43     else {
44         System.out.println("admin not present");
45     }
46

```

admin is present

validate if string present at specific location-

```
String mesg = "welcome admin";

if(mesg.indexOf("admin") == 8) {
    System.out.println("admin is present -- PASS");
}
else {
    System.out.println("admin not present -- FAIL");
}
```

admin is present –pass

just check if word is present at any index-
from zero to any index.

```
String m1 = "By creating an account you will be able to shop faster, "  
+ "be up to date on an order's status, "  
+ "and keep track of the orders you have previously made";

if(m1.indexOf("shop faster")>=0) {
    System.out.println("PASS");
}
```

pass

trim-removes space from front and back.

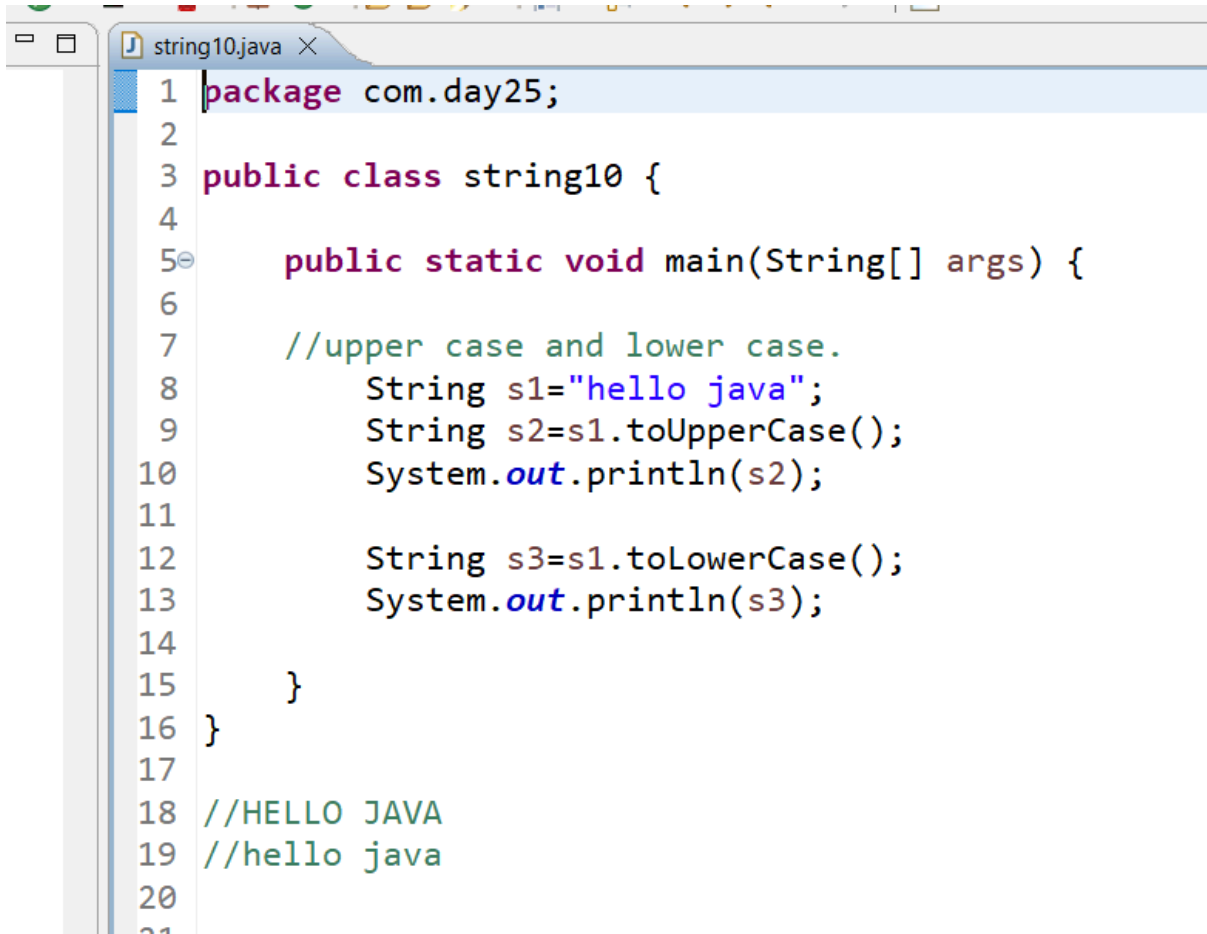
```
//
String t1 = "  hello world  ";
System.out.println(t1.trim());
```

```
PASS
hello world
```

lower and upper case-

write your screenshot here.

paste string10-

A screenshot of a Java code editor window titled 'string10.java'. The code is as follows:

```
1 package com.day25;  
2  
3 public class string10 {  
4  
5     public static void main(String[] args) {  
6  
7         //upper case and lower case.  
8         String s1="hello java";  
9         String s2=s1.toUpperCase();  
10        System.out.println(s2);  
11  
12        String s3=s1.toLowerCase();  
13        System.out.println(s3);  
14  
15    }  
16 }  
17  
18 //HELLO JAVA  
19 //hello java  
20  
21
```

replace

paste string11-

```
string11.java X
1 package com.day25;
2
3 public class string11 {
4
5     public static void main(String[] args) {
6
7         //replace function.
8         //replaces all occurrences.
9         String s1="01/01/1990";
10        String s2=s1.replace("/", "--");
11        System.out.println(s2);
12    }
13 }
14
15 //01--01--1990
16
17
```

replace space with nothing

paste string12-

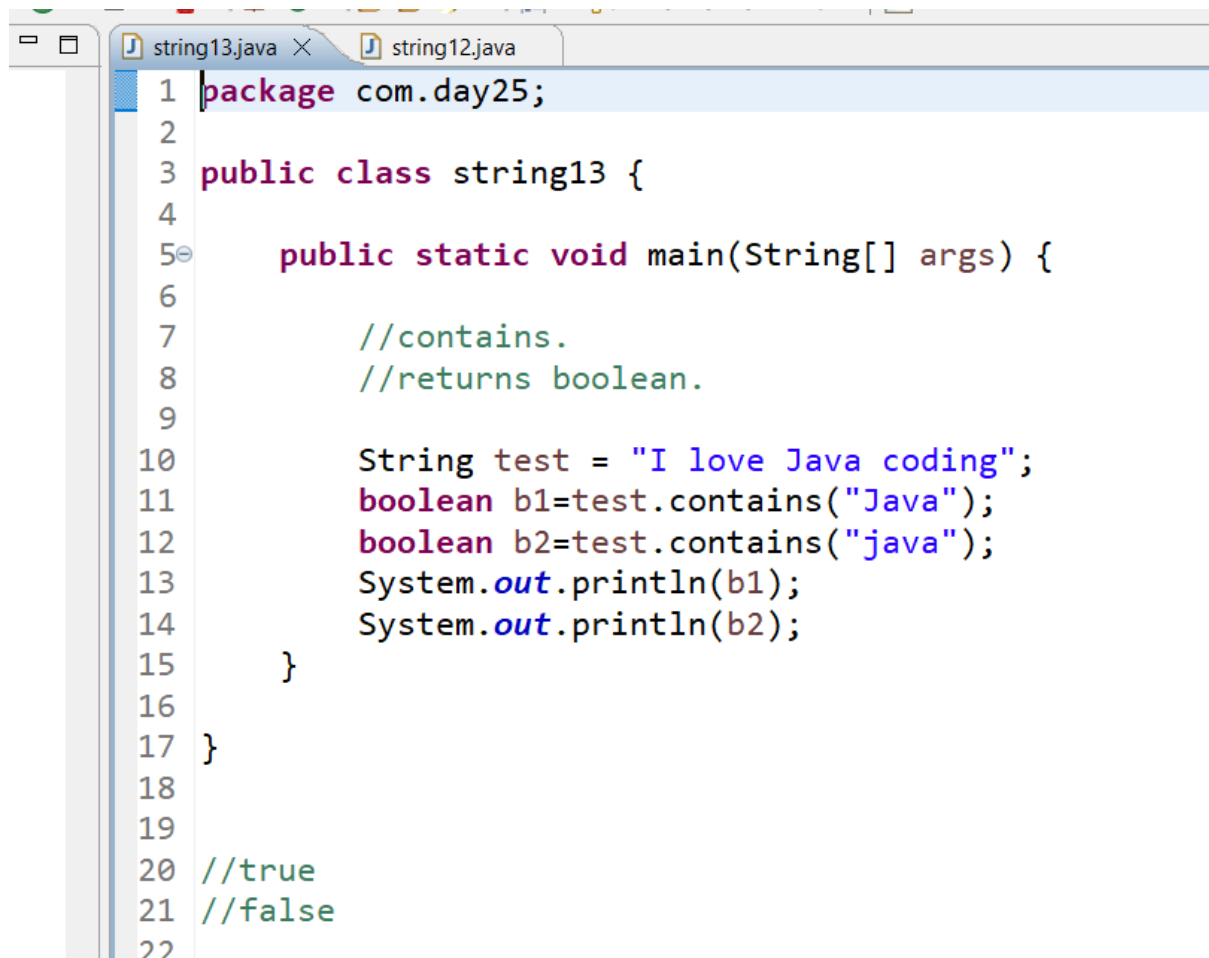
```
string13.java string12.java X
1 package com.day25;
2
3 public class string12 {
4
5     public static void main(String[] args) {
6
7         //replace string with nothing.
8         String t1="    hello world    ";
9         String t2=t1.replace(" ", "");
10        System.out.println(t2);
11    }
12 }
13 }
14
15
16 //helloworld
17
```


contains-45.33

returns boolean.

index of gives integer.

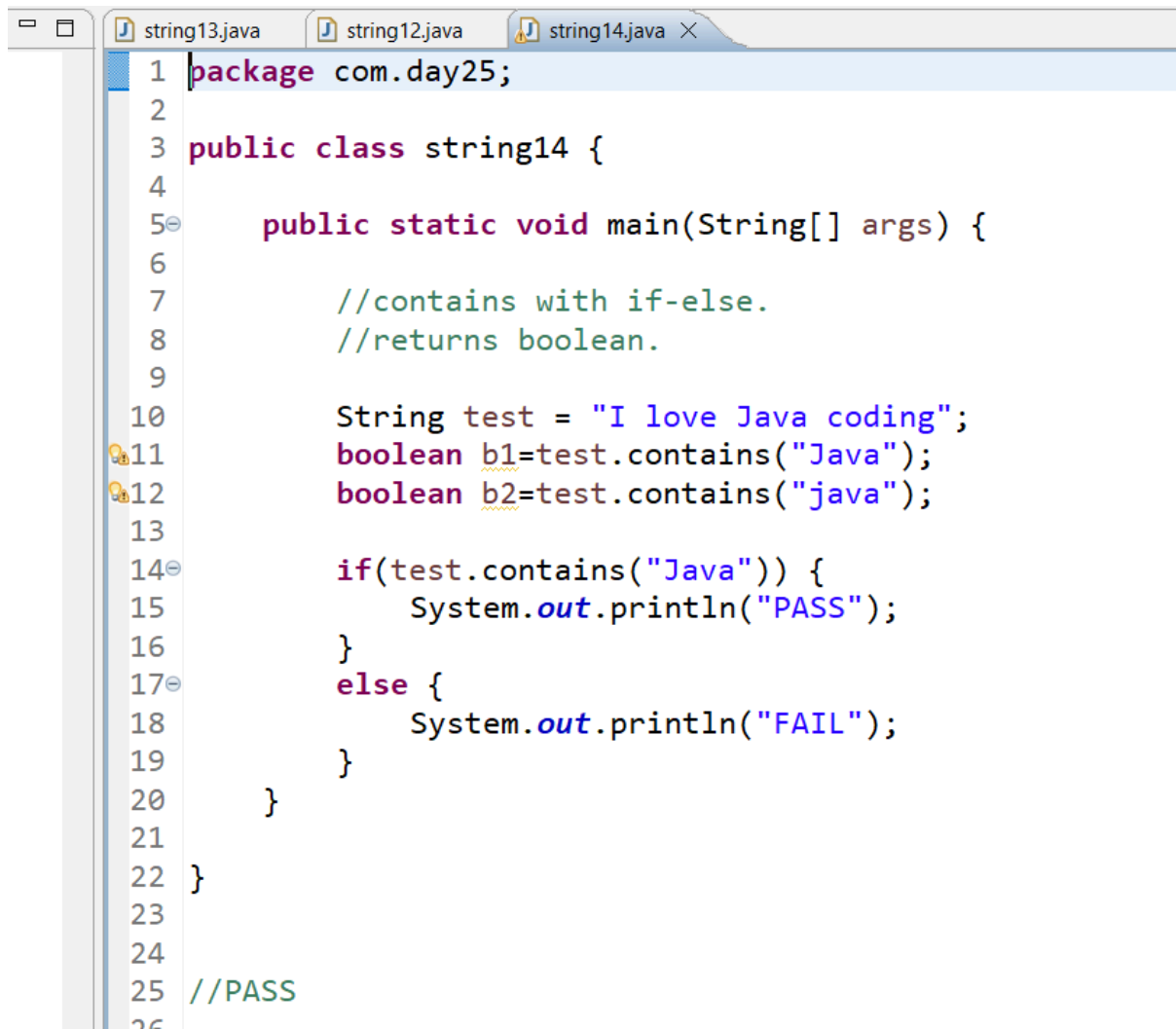
paste string13-



```
1 package com.day25;
2
3 public class string13 {
4
5     public static void main(String[] args) {
6
7         //contains.
8         //returns boolean.
9
10        String test = "I love Java coding";
11        boolean b1=test.contains("Java");
12        boolean b2=test.contains("java");
13        System.out.println(b1);
14        System.out.println(b2);
15    }
16
17 }
18
19
20 //true
21 //false
22
```

contains with if-else

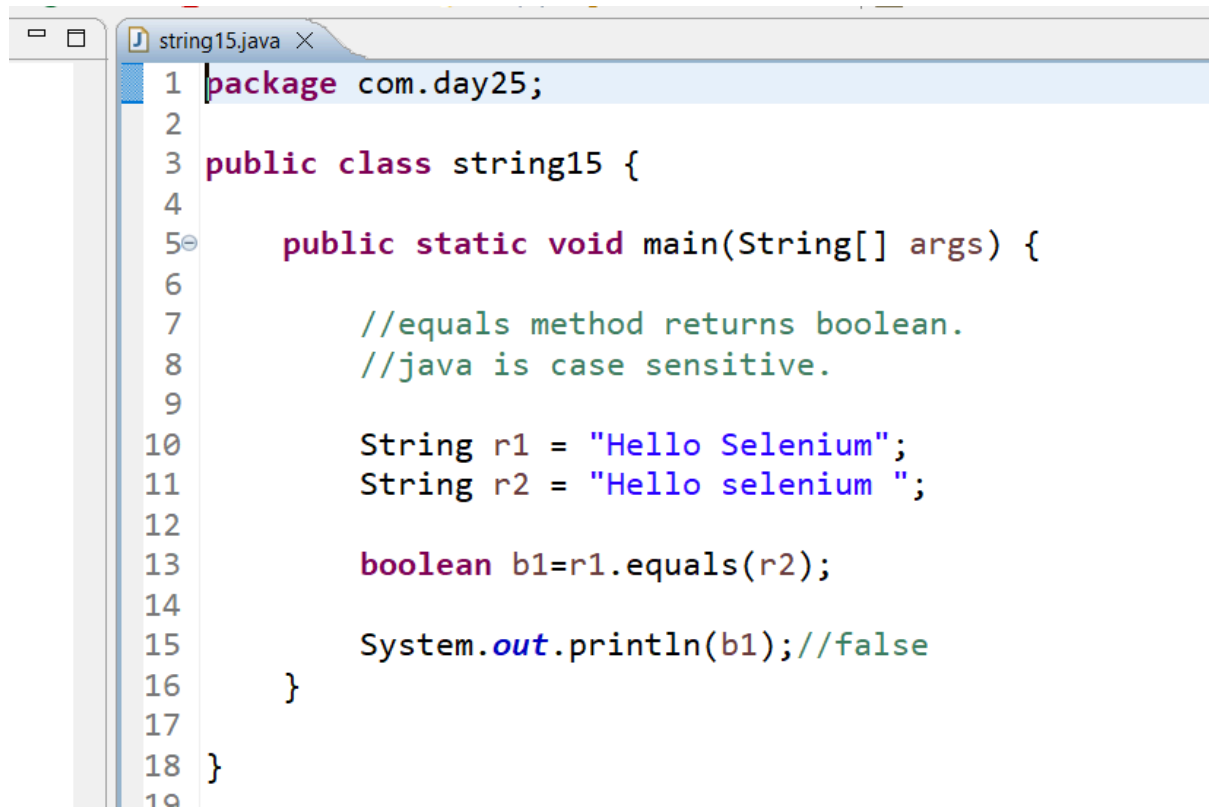
paste string14-



```
1 package com.day25;
2
3 public class string14 {
4
5     public static void main(String[] args) {
6
7         //contains with if-else.
8         //returns boolean.
9
10        String test = "I love Java coding";
11        boolean b1=test.contains("Java");
12        boolean b2=test.contains("java");
13
14        if(test.contains("Java")) {
15            System.out.println("PASS");
16        }
17        else {
18            System.out.println("FAIL");
19        }
20    }
21 }
22
23
24
25 //PASS
```

equals method-
returns boolean.

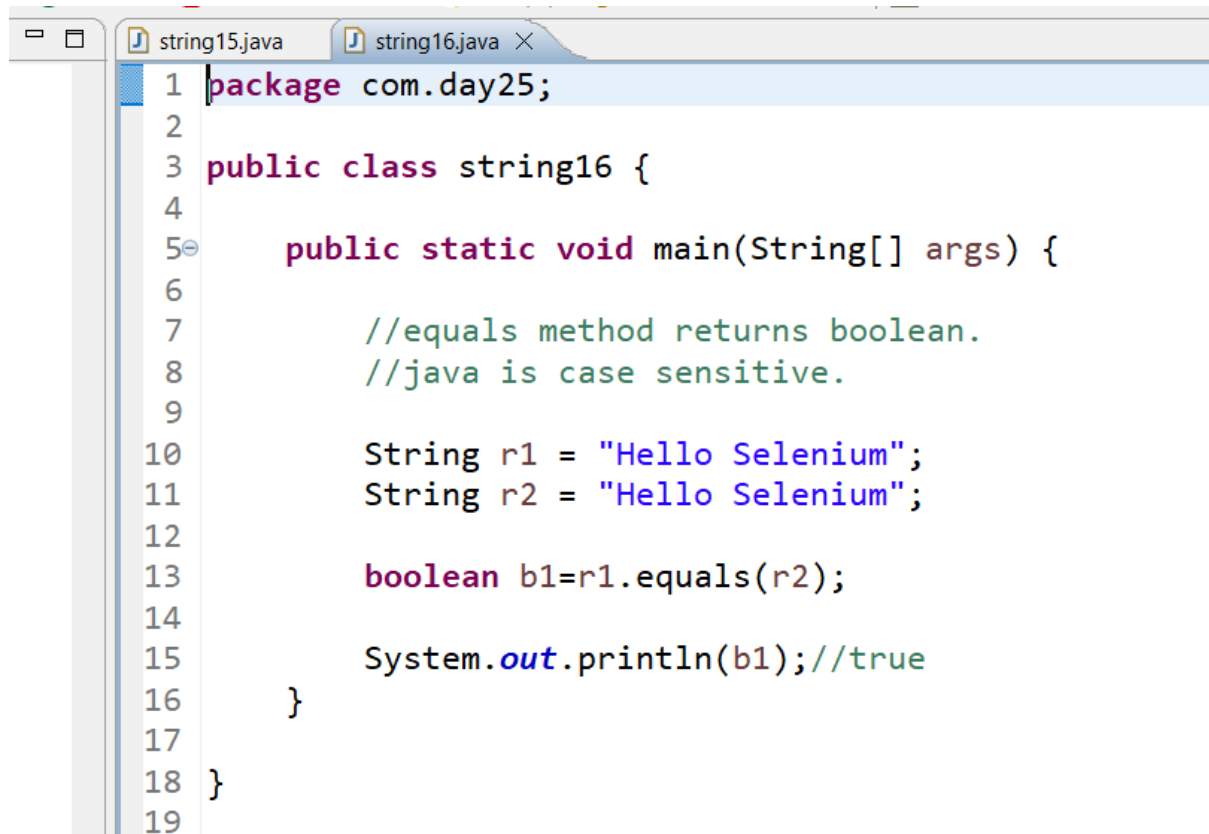
paste string15-



```
1 package com.day25;
2
3 public class string15 {
4
5     public static void main(String[] args) {
6
7         //equals method returns boolean.
8         //java is case sensitive.
9
10        String r1 = "Hello Selenium";
11        String r2 = "Hello selenium ";
12
13        boolean b1=r1.equals(r2);
14
15        System.out.println(b1);//false
16    }
17
18 }
```

change case-

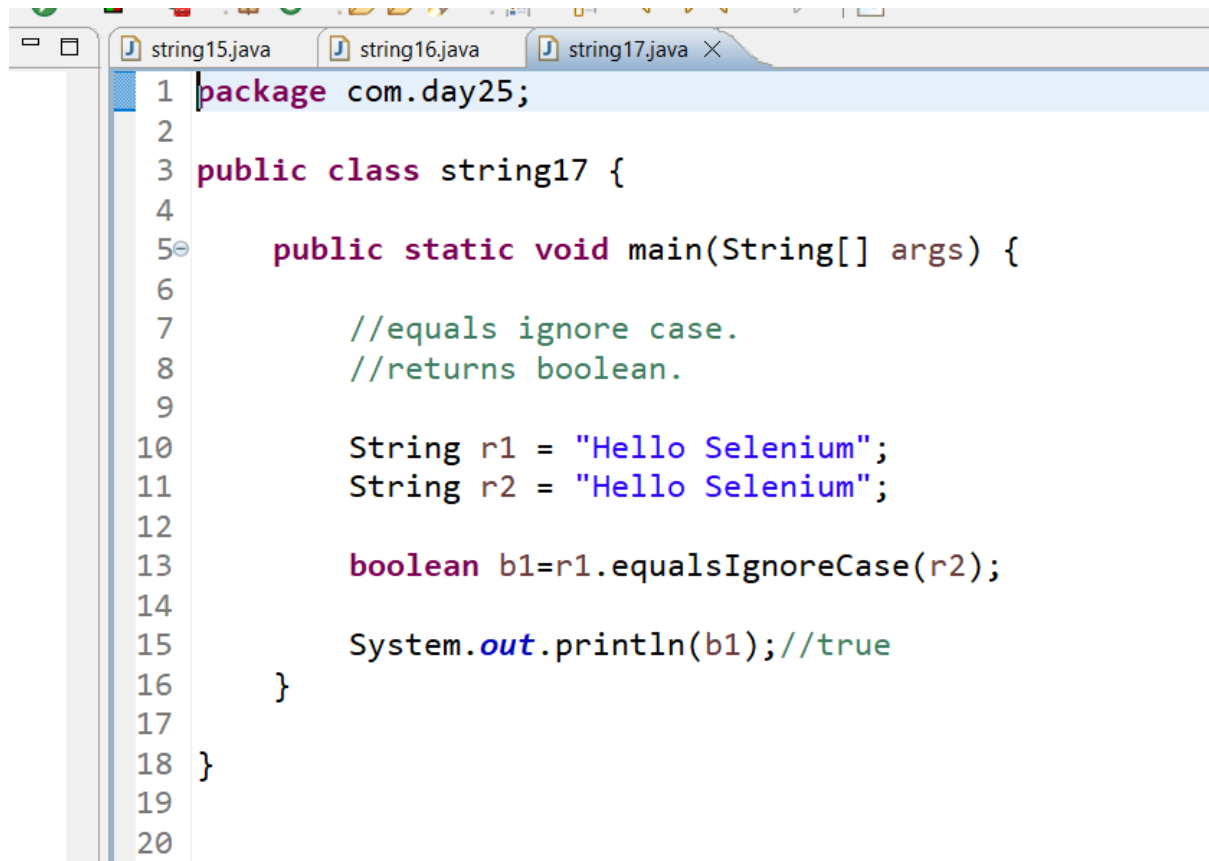
paste string16-



```
1 package com.day25;
2
3 public class string16 {
4
5     public static void main(String[] args) {
6
7         //equals method returns boolean.
8         //java is case sensitive.
9
10        String r1 = "Hello Selenium";
11        String r2 = "Hello Selenium";
12
13        boolean b1=r1.equals(r2);
14
15        System.out.println(b1);//true
16    }
17
18 }
19
```

equals ignore case-

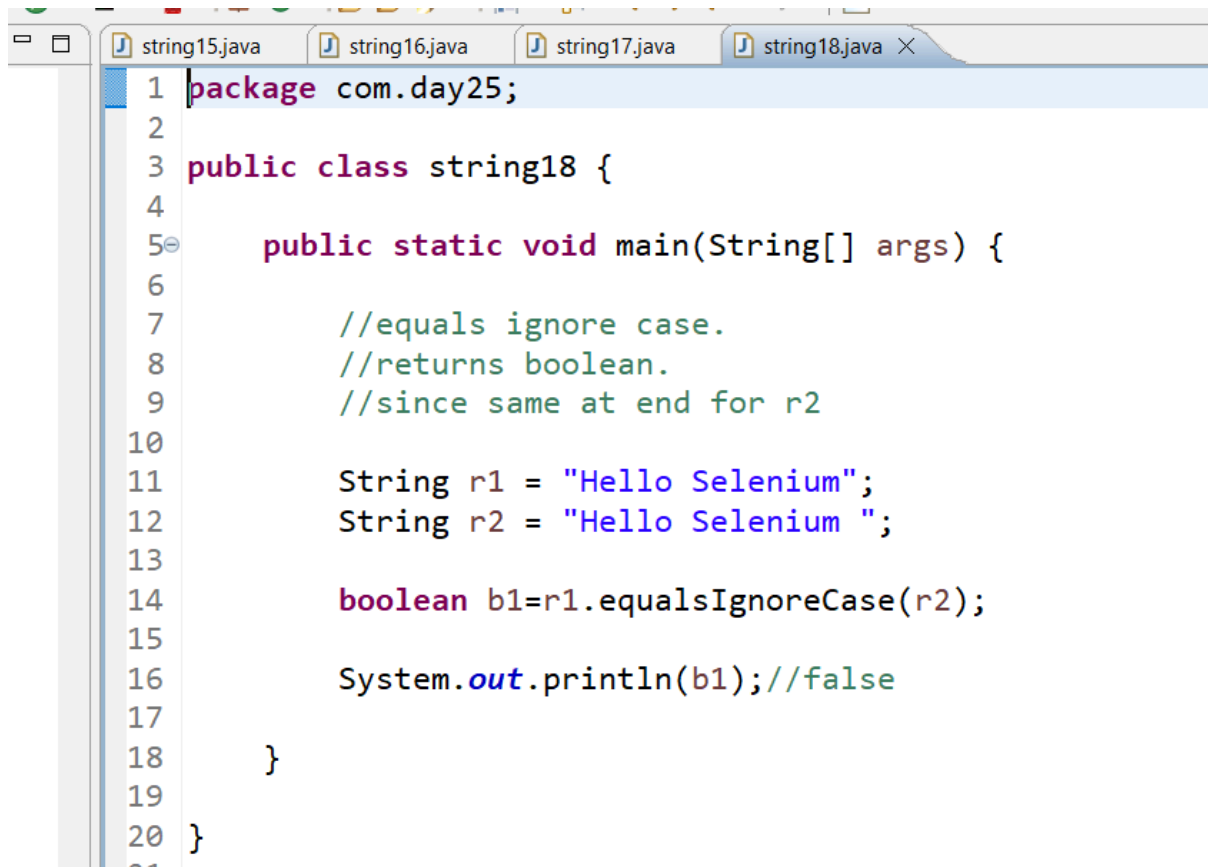
paste string17



```
1 package com.day25;
2
3 public class string17 {
4
5     public static void main(String[] args) {
6
7         //equals ignore case.
8         //returns boolean.
9
10        String r1 = "Hello Selenium";
11        String r2 = "Hello Selenium";
12
13        boolean b1=r1.equalsIgnoreCase(r2);
14
15        System.out.println(b1);//true
16    }
17
18 }
19
20
```

add space at end

paste string18



```

1 package com.day25;
2
3 public class string18 {
4
5     public static void main(String[] args) {
6
7         //equals ignore case.
8         //returns boolean.
9         //since same at end for r2
10
11         String r1 = "Hello Selenium";
12         String r2 = "Hello Selenium ";
13
14         boolean b1=r1.equalsIgnoreCase(r2);
15
16         System.out.println(b1);//false
17
18     }
19
20 }

```

remove space and compare

one liner code also we can write.

```
}
```

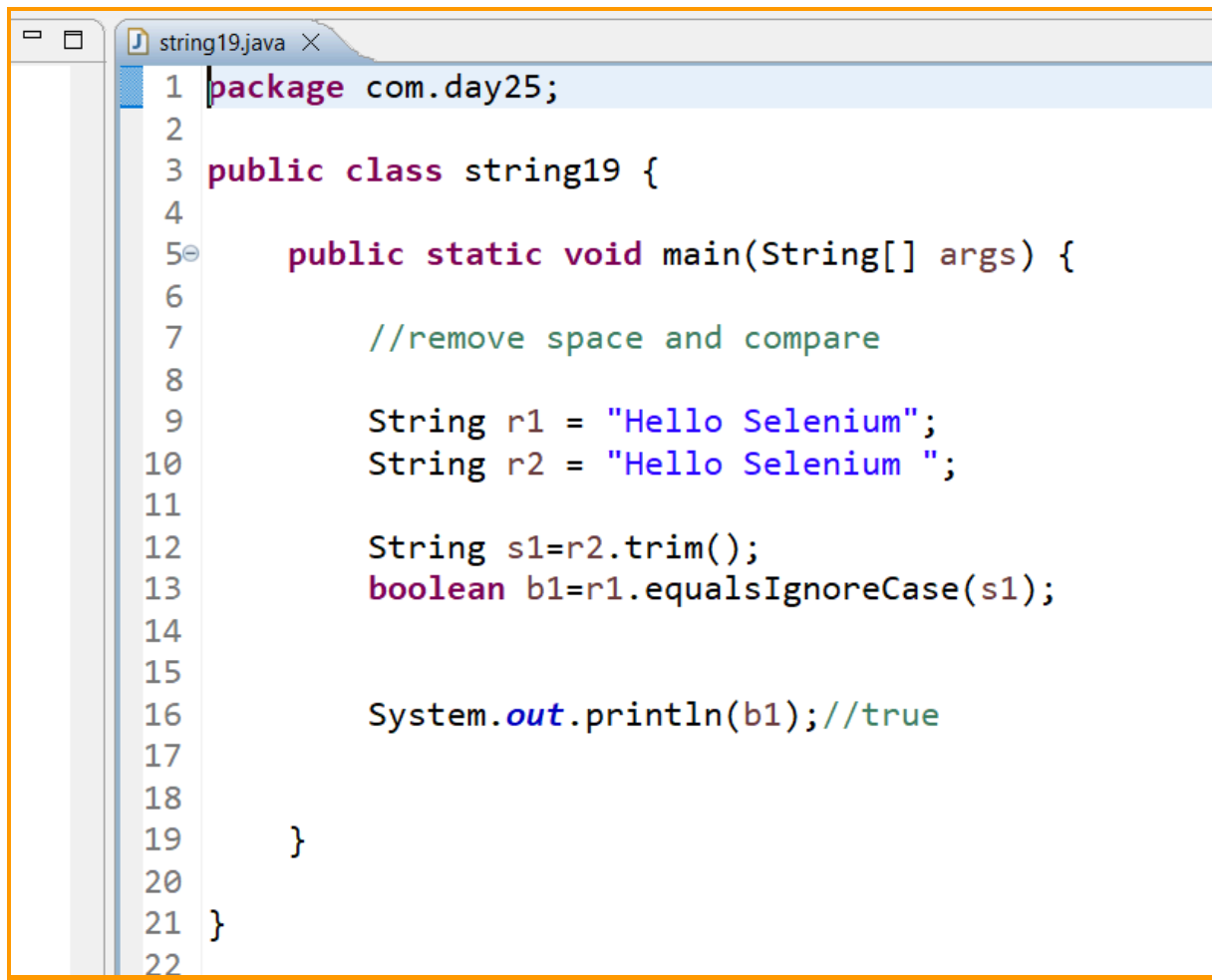
```

//equals:
String r1 = "Hello Selenium";
String r2 = "Hello selenium ";

System.out.println(r1.equals(r2));//false
System.out.println(r1.equalsIgnoreCase(r2.trim()));//true

```

paste string19-



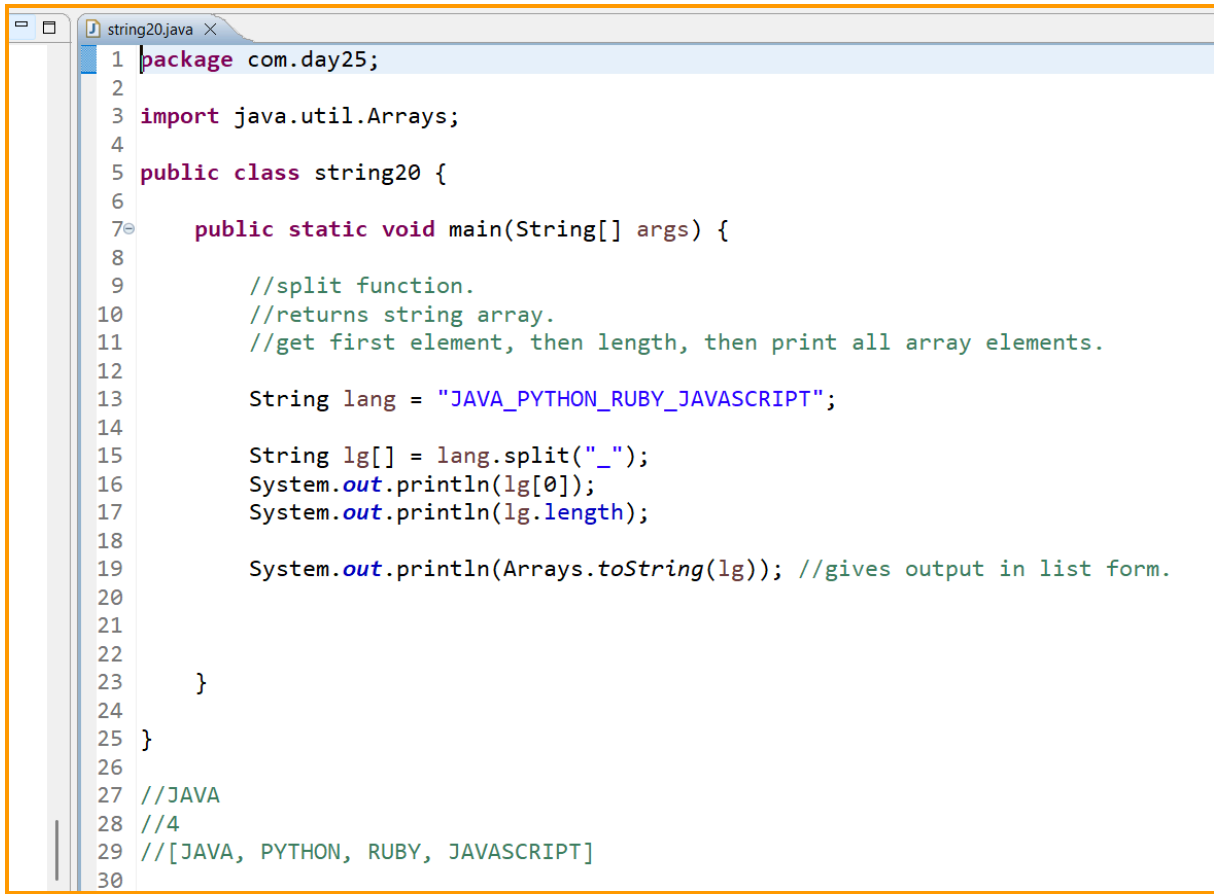
```
1 package com.day25;
2
3 public class string19 {
4
5     public static void main(String[] args) {
6
7         //remove space and compare
8
9         String r1 = "Hello Selenium";
10        String r2 = "Hello Selenium ";
11
12        String s1=r2.trim();
13        boolean b1=r1.equalsIgnoreCase(s1);
14
15
16        System.out.println(b1);//true
17
18
19    }
20
21 }
22
```

split

use length

print all array elements

paste string20



```
1 package com.day25;
2
3 import java.util.Arrays;
4
5 public class string20 {
6
7     public static void main(String[] args) {
8
9         //split function.
10        //returns string array.
11        //get first element, then length, then print all array elements.
12
13        String lang = "JAVA_PYTHON_RUBY_JAVASCRIPT";
14
15        String lg[] = lang.split("_");
16        System.out.println(lg[0]);
17        System.out.println(lg.length);
18
19        System.out.println(Arrays.toString(lg)); //gives output in list form.
20
21
22    }
23
24 }
25
26
27 //JAVA
28 //4
29 //[JAVA, PYTHON, RUBY, JAVASCRIPT]
30
```

run this unique case

paste string21


```

1 package com.day25;
2
3 import java.util.Arrays;
4
5 public class string21 {
6
7     public static void main(String[] args) {
8
9         String pop = "xXHelloXxXSeleniumXTestingXxXGoogleX";
10        String pp[] = pop.split("xX");
11
12        System.out.println(pp[0]);
13
14        int i1=pp[0].length();
15
16        System.out.println(i1);
17
18        System.out.println(pp[1]);
19        System.out.println(pp[2]);
20        System.out.println(pp[3]);
21        System.out.println(pp[4]);
22        System.out.println(pp[5]); //no index present.
23
24    }
25 }
26
27 }
28

```

```

27 }
28
29
30 //0
31 //HelloX
32 //Selenium
33 //TestingX
34 //GoogleX
35 //Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException:
36 //  Index 5 out of bounds for length 5
37 //  at com.day25.string21.main(string21.java:22)
38
39

```

blank output, no space nothing.

to check the length-

go outside bound-

another example-

print -

paste string22-

```

1 package com.day25;
2
3 import java.util.Arrays;
4
5 public class string22 {
6
7     public static void main(String[] args) {
8
9         String pop = "KaranXXHelloXXSeleniumXXTestingXXGoogleX";
10        String pp[] = pop.split("XX");
11
12        System.out.println(pp[0]);
13
14        int i1=pp[0].length();
15
16        System.out.println(i1);
17
18        System.out.println(pp[1]);
19        System.out.println(pp[2]);
20        System.out.println(pp[3]);
21        System.out.println(pp[4]);
22
23        //print array in list form.
24        System.out.println(Arrays.toString(pp));
25
26        System.out.println(pp[5]); //no index present.
27

```

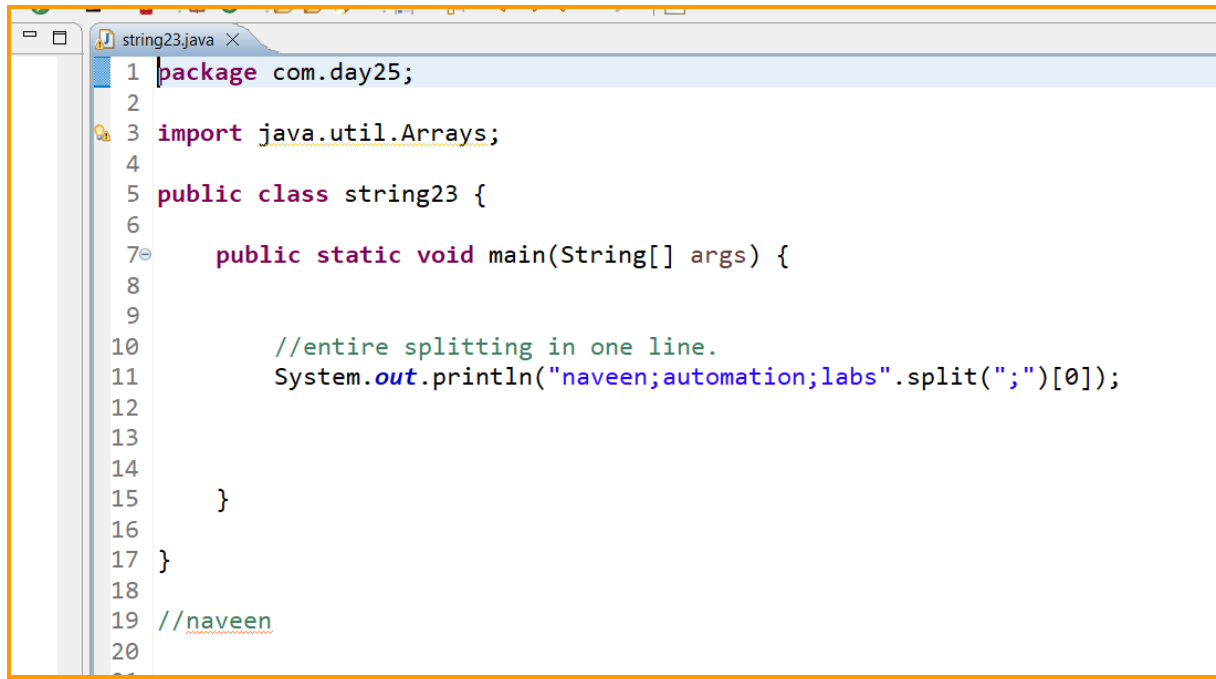
```

26        System.out.println(pp[5]); //no index present.
27
28
29
30
31    }
32
33 }
34
35
36 //Karan
37 //5
38 //HelloX
39 //Selenium
40 //TestingX
41 //GoogleX
42 //[Karan, HelloX, Selenium, TestingX, GoogleX]
43 //Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException:
44 //  Index 5 out of bounds for length 5
45 //  at com.day25.string22.main(string22.java:26)
46

```

do in one line-

paste string23-

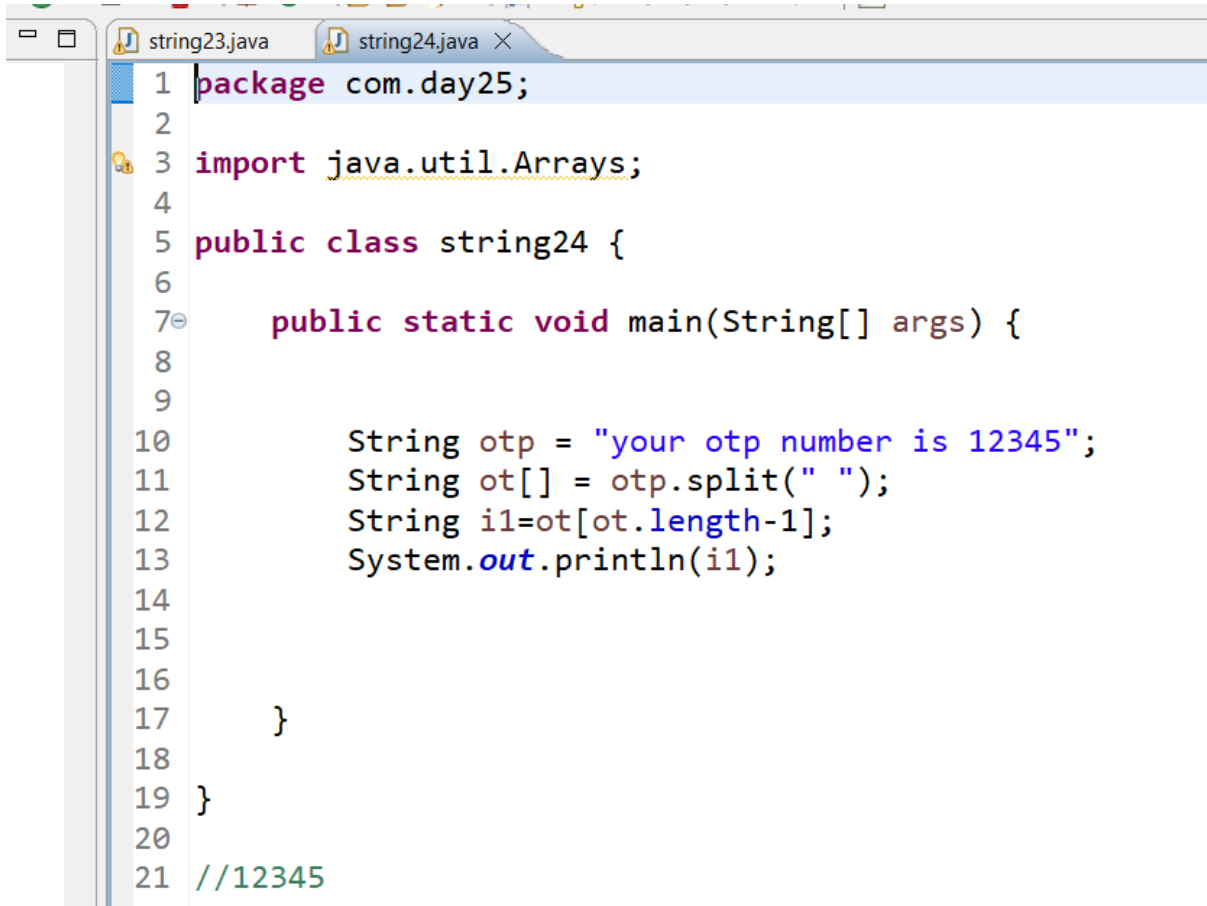
A screenshot of a Java code editor window titled 'string23.java'. The code is as follows:

```
1 package com.day25;
2
3 import java.util.Arrays;
4
5 public class string23 {
6
7     public static void main(String[] args) {
8
9
10         //entire splitting in one line.
11         System.out.println("naveen;automation;labs".split(";")[0]);
12
13
14     }
15 }
16
17
18 //naveen
19
20
```

The code demonstrates how to split a string in a single line using the `split()` method on a `String` object, and then print the first element of the resulting array.

get otp-

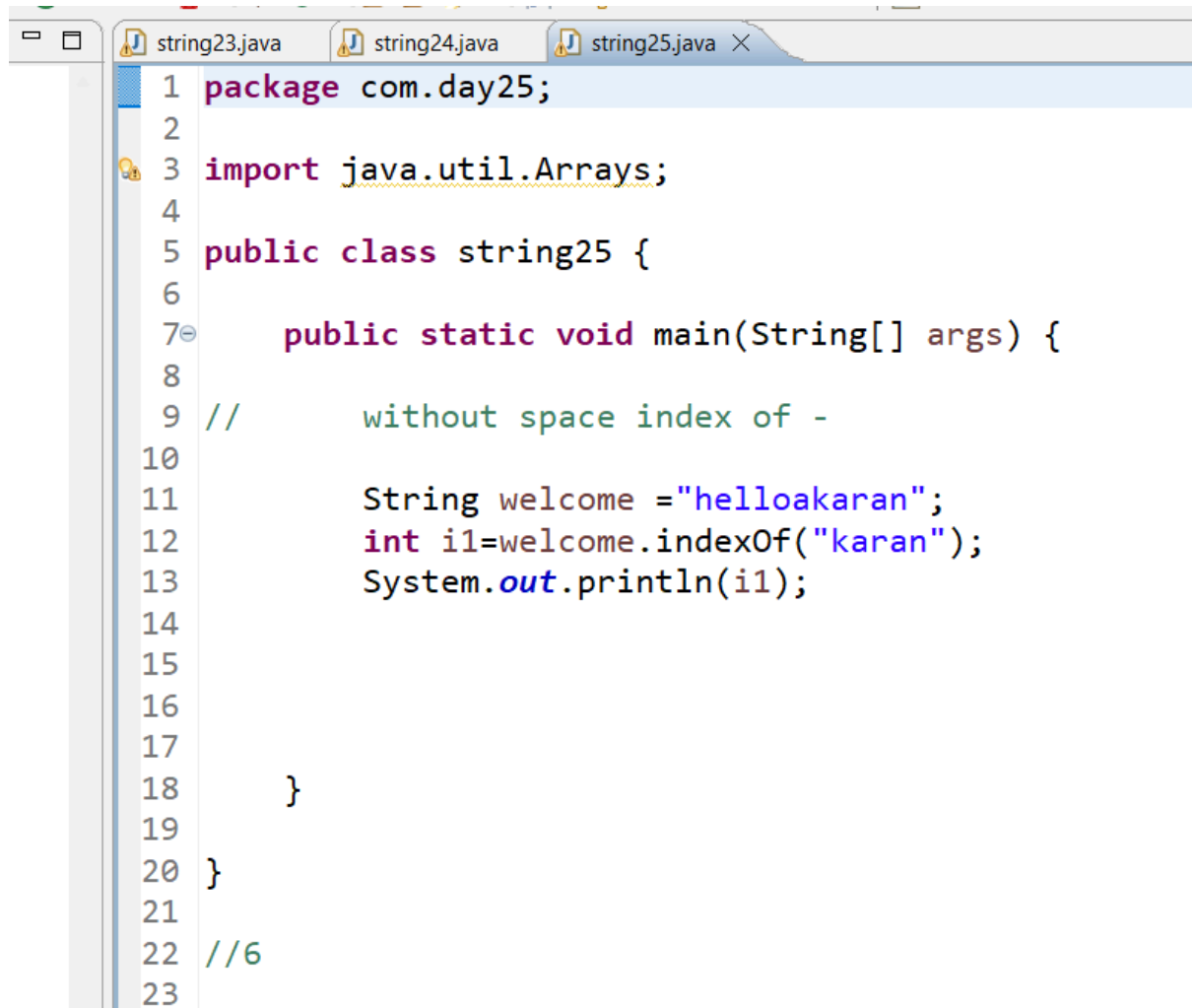
paste string24



```
1 package com.day25;
2
3 import java.util.Arrays;
4
5 public class string24 {
6
7     public static void main(String[] args) {
8
9
10         String otp = "your otp number is 12345";
11         String ot[] = otp.split(" ");
12         String i1=ot[ot.length-1];
13         System.out.println(i1);
14
15
16
17     }
18
19 }
20
21 //12345
```

without space index of -

paste string25-



```
1 package com.day25;
2
3 import java.util.Arrays;
4
5 public class string25 {
6
7     public static void main(String[] args) {
8
9         // without space index of -
10
11         String welcome ="helloakaran";
12         int i1=welcome.indexOf("karan");
13         System.out.println(i1);
14
15
16
17
18     }
19
20 }
21
22 //6
23
```