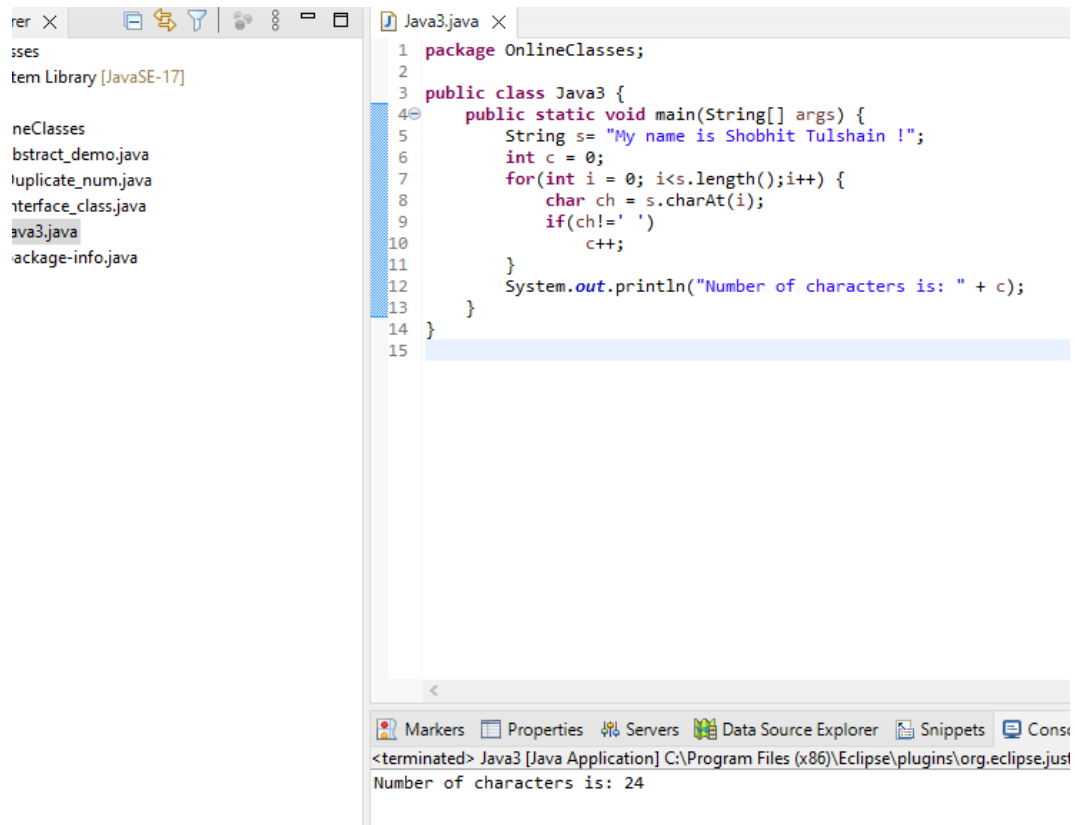


Shobhit Tulshain

1.

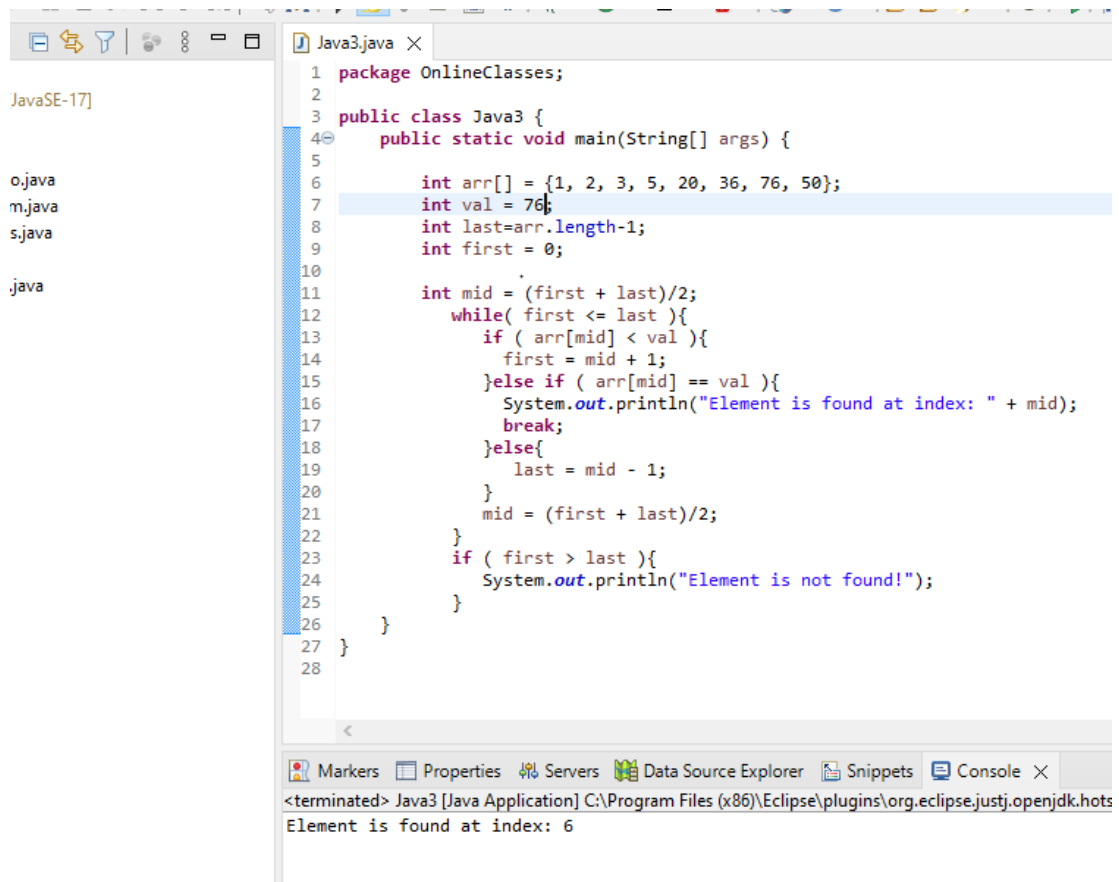


The screenshot shows the Eclipse IDE with a project named 'JavaSE-17'. The 'Package Explorer' on the left lists several files, including 'Java3.java'. The 'Java3.java' file is open in the editor, showing the following code:

```
1 package OnlineClasses;
2
3 public class Java3 {
4     public static void main(String[] args) {
5         String s = "My name is Shobhit Tulshain !";
6         int c = 0;
7         for(int i = 0; i<s.length();i++) {
8             char ch = s.charAt(i);
9             if(ch!=' ')
10                 c++;
11         }
12         System.out.println("Number of characters is: " + c);
13     }
14 }
15
```

The 'Console' window at the bottom shows the output: 'Number of characters is: 24'.

2.

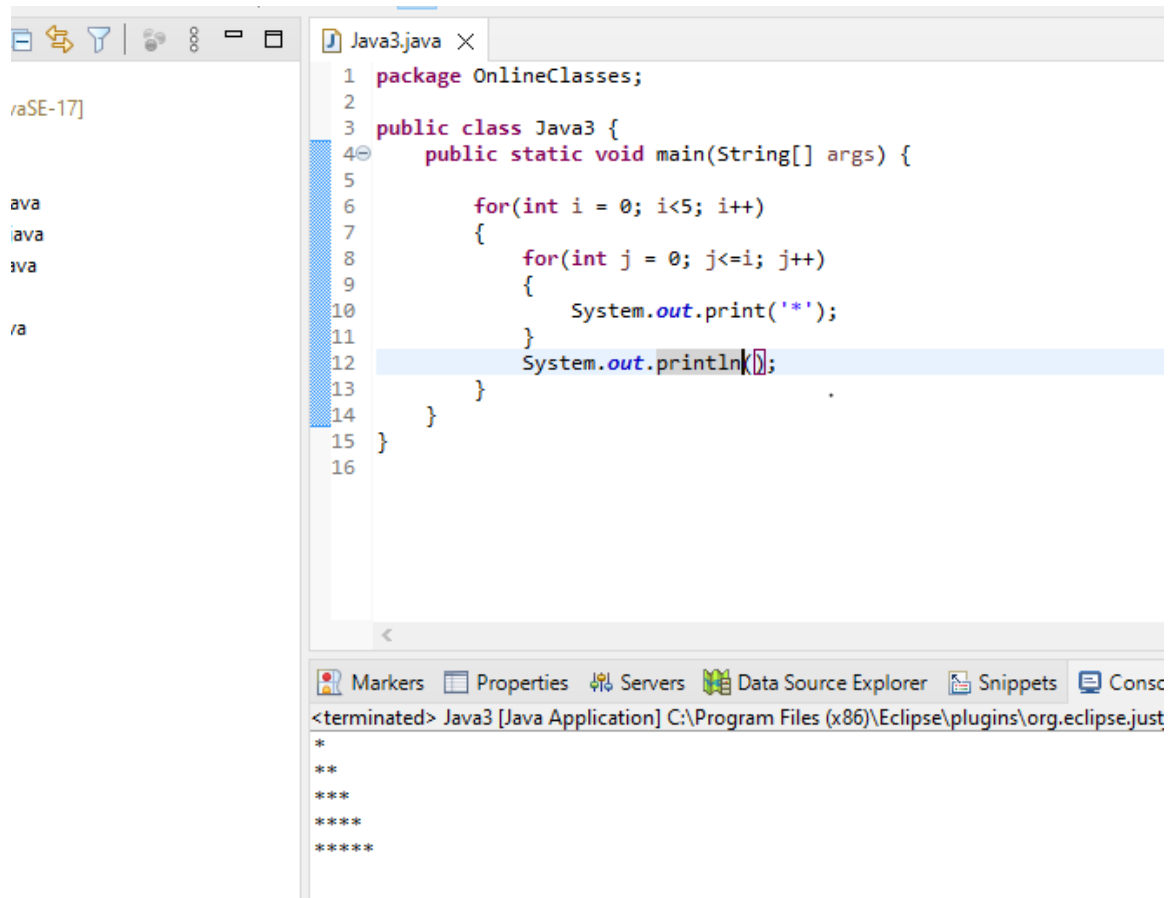


The screenshot shows the Eclipse IDE with a project named 'JavaSE-17'. The 'Package Explorer' on the left lists several files, including 'Java3.java'. The 'Java3.java' file is open in the editor, showing the following code:

```
1 package OnlineClasses;
2
3 public class Java3 {
4     public static void main(String[] args) {
5
6         int arr[] = {1, 2, 3, 5, 20, 36, 76, 50};
7         int val = 76;
8         int last=arr.length-1;
9         int first = 0;
10
11         int mid = (first + last)/2;
12         while( first <= last ){
13             if ( arr[mid] < val ){
14                 first = mid + 1;
15             }else if ( arr[mid] == val ){
16                 System.out.println("Element is found at index: " + mid);
17                 break;
18             }else{
19                 last = mid - 1;
20             }
21             mid = (first + last)/2;
22         }
23         if ( first > last ){
24             System.out.println("Element is not found!");
25         }
26     }
27 }
28
```

The 'Console' window at the bottom shows the output: 'Element is found at index: 6'.

3.



The screenshot shows the Eclipse IDE with a project named 'Java3.java'. The code is as follows:

```

1 package OnlineClasses;
2
3 public class Java3 {
4     public static void main(String[] args) {
5
6         for(int i = 0; i<5; i++)
7         {
8             for(int j = 0; j<=i; j++)
9             {
10                 System.out.print('*');
11             }
12             System.out.println();
13         }
14     }
15 }
16

```

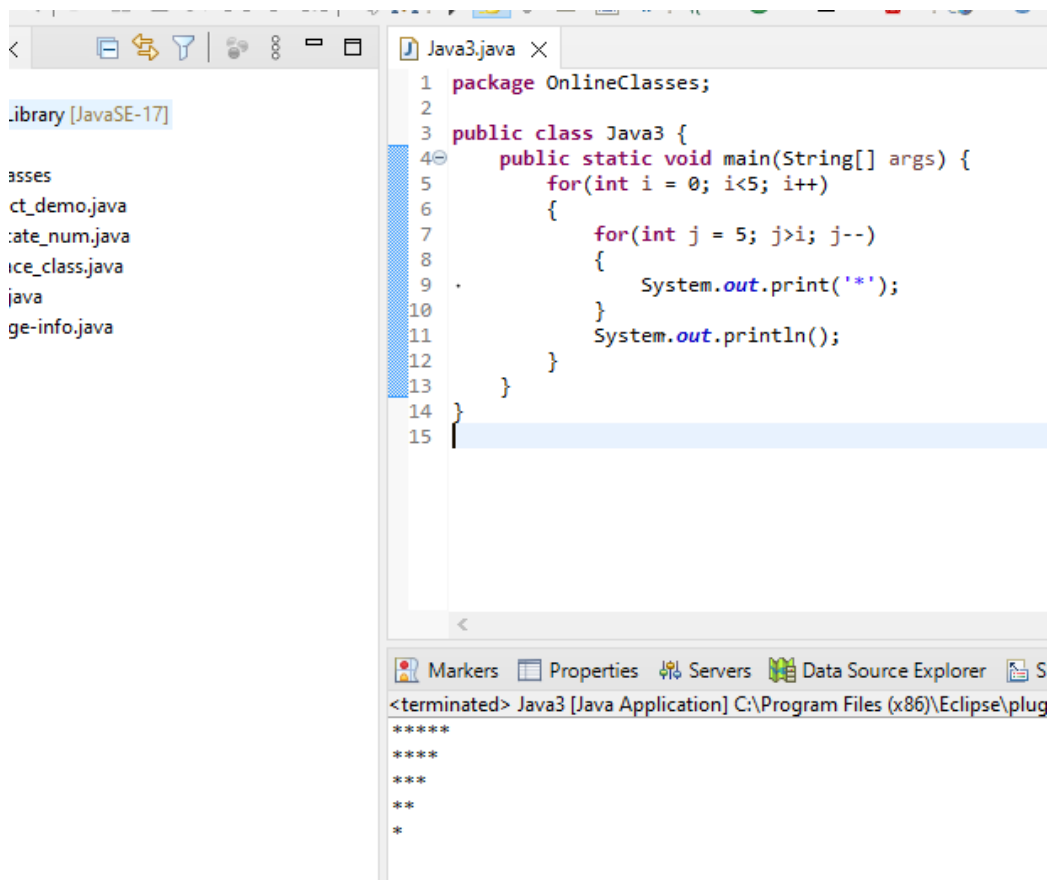
The console output shows the result of running the program:

```

<terminated> Java3 [Java Application] C:\Program Files (x86)\Eclipse\plugins\org.eclipse.just
*
**
***
****
*****

```

4.



The screenshot shows the Eclipse IDE with a project named 'Java3.java'. The code is as follows:

```

1 package OnlineClasses;
2
3 public class Java3 {
4     public static void main(String[] args) {
5         for(int i = 0; i<5; i++)
6         {
7             for(int j = 5; j>i; j--)
8             {
9                 System.out.print('*');
10            }
11            System.out.println();
12        }
13    }
14 }
15

```

The console output shows the result of running the program:

```

<terminated> Java3 [Java Application] C:\Program Files (x86)\Eclipse\plug
*****
****
***
**
*

```