Assignment 4:
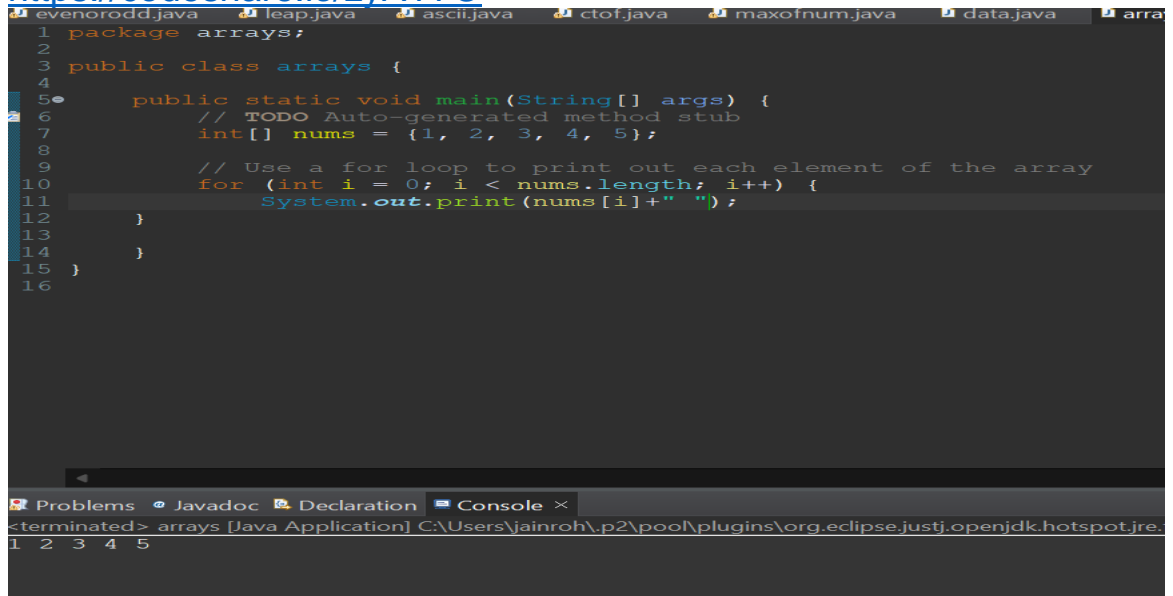
Name:Rohan Jain T B

1) Create an array of integers and use a for loop to print out each element of the array.
https://codeshare.io/zyAY7O

```java
package arrays;

public class arrays {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] nums = {1, 2, 3, 4, 5};

        // Use a for loop to print out each element of the array
        for (int i = 0; i < nums.length; i++) {
            System.out.print(nums[i]+" ");
        }

    }
}
```
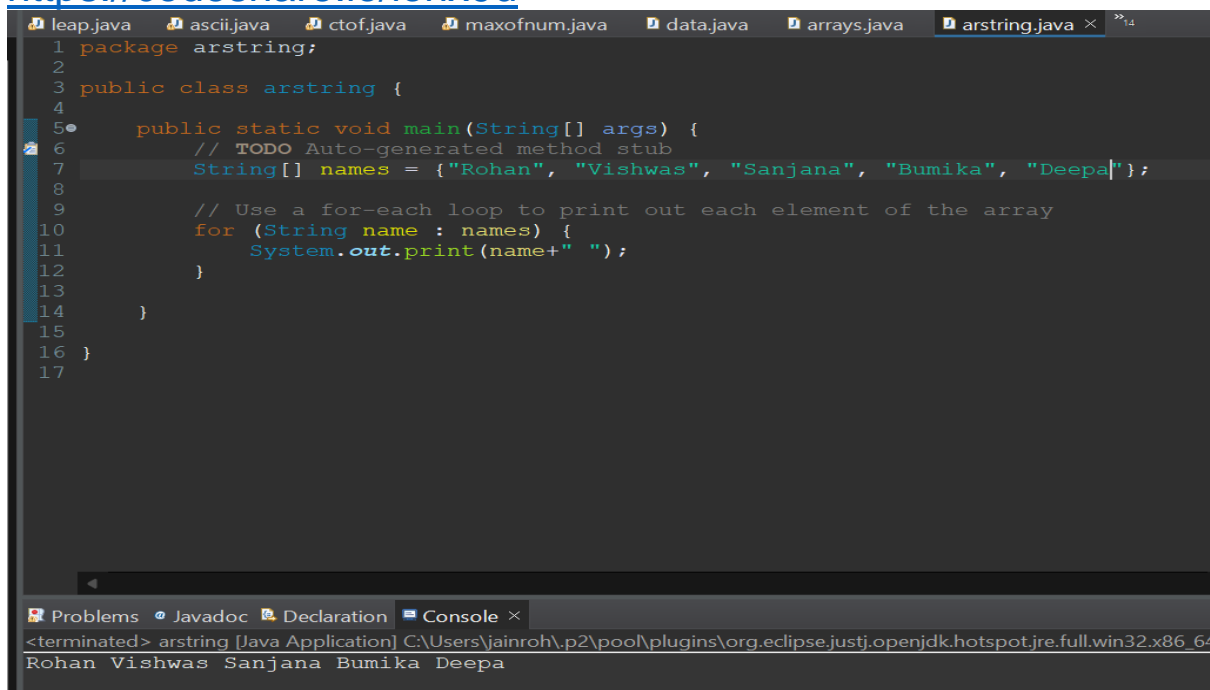
Problems Javadoc Declaration Console ×
<terminated> arrays [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.
1 2 3 4 5

2)Create an array of strings and use a for-each loop to print out each element of the array.
https://codeshare.io/lonx9d

```java
package arstring;

public class arstring {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String[] names = {"Rohan", "Vishwas", "Sanjana", "Bumika", "Deepa"};

        // Use a for-each loop to print out each element of the array
        for (String name : names) {
            System.out.print(name+" ");
        }

    }
}
```
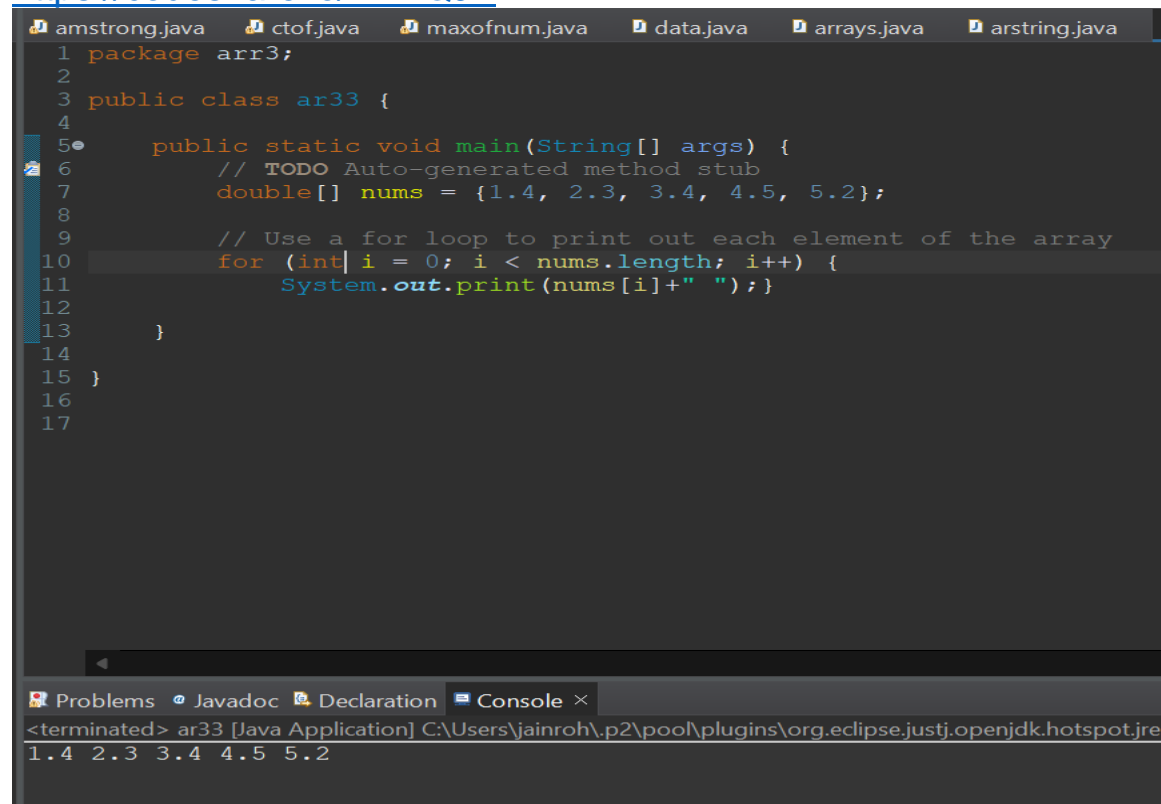
Problems Javadoc Declaration Console ×
<terminated> arstring [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64
Rohan Vishwas Sanjana Bumika Deepa

3) Create an array of doubles and use a while loop to print out each element of the array.

```java
package arr3;

public class ar33 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        double[] nums = {1.4, 2.3, 3.4, 4.5, 5.2};

        // Use a for loop to print out each element of the array
        for (int i = 0; i < nums.length; i++) {
            System.out.print(nums[i]+" ");}

    }
}
```

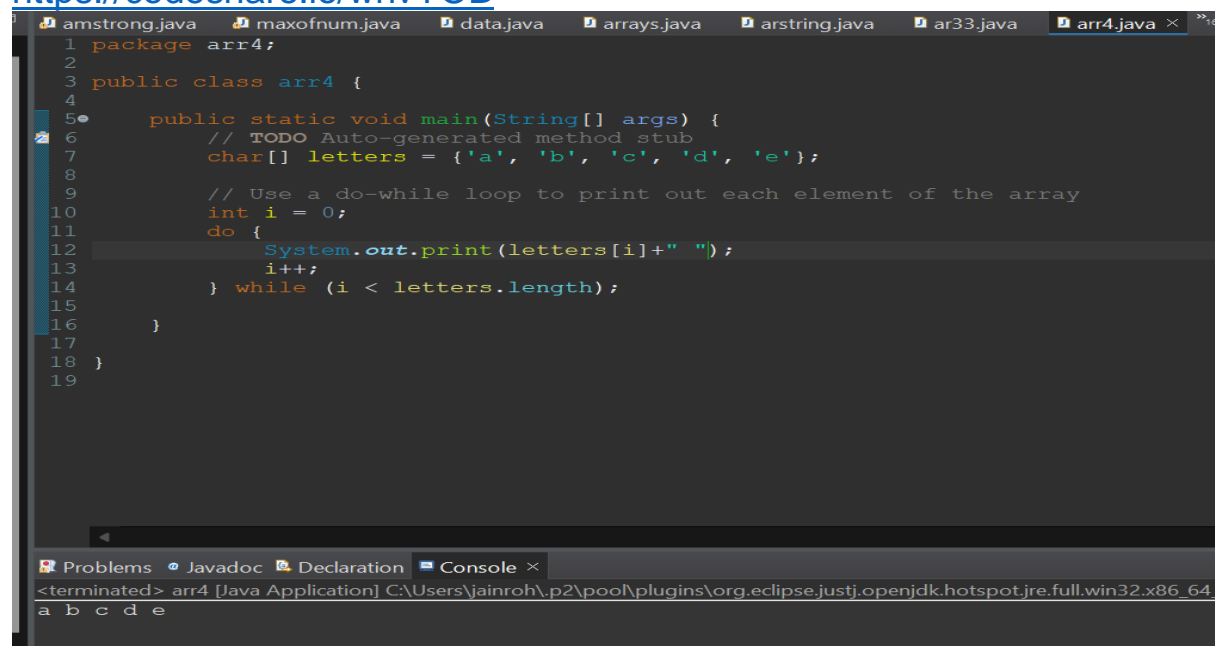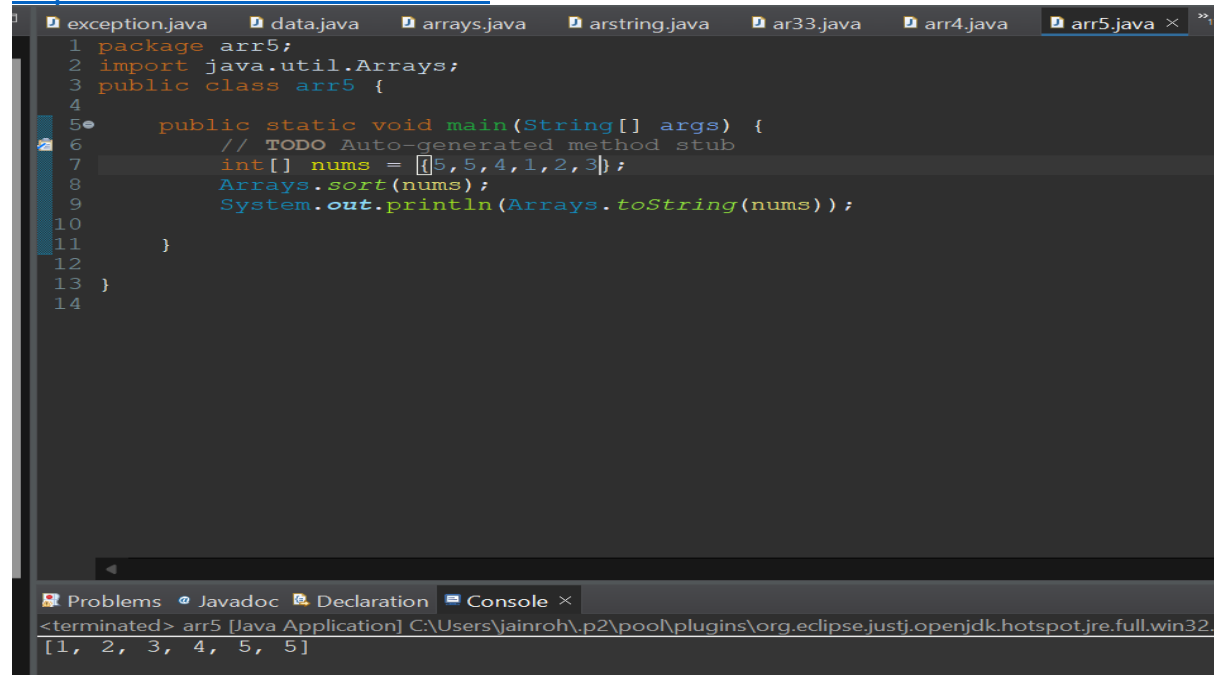Problems Javadoc Declaration Console ×
<terminated> ar33 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre
1.4 2.3 3.4 4.5 5.2

4) Create an array of characters and use a do-while loop to print out each element of the array.

```java
package arr4;

public class arr4 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        char[] letters = {'a', 'b', 'c', 'd', 'e'};

        // Use a do-while loop to print out each element of the array
        int i = 0;
        do {
            System.out.print(letters[i]+" ");
            i++;
        } while (i < letters.length);

    }
}
```

Problems Javadoc Declaration Console ×
<terminated> arr4 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64
a b c d e

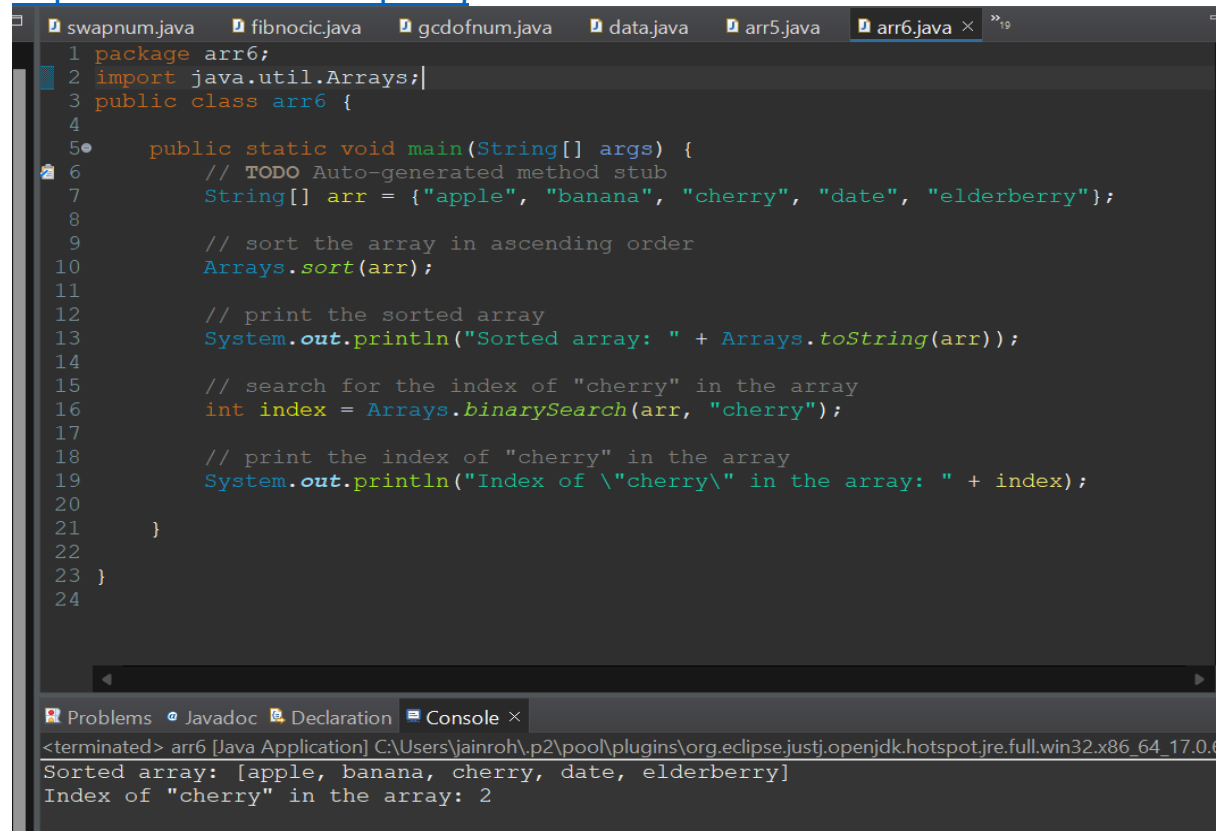**5)** Create an array of integers and use the Arrays class method sort() to sort the array in ascending order.
https://codeshare.io/eV6xmK

```java
package arr5;
import java.util.Arrays;
public class arr5 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int[] nums = {5,5,4,1,2,3};
        Arrays.sort(nums);
        System.out.println(Arrays.toString(nums));

    }

}
```

Problems · Javadoc · Declaration · Console ×
<terminated> arr5 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.
[1, 2, 3, 4, 5, 5]

6) Create an array of strings and use the Arrays class method binarySearch() to find the index of a specific string in the array.
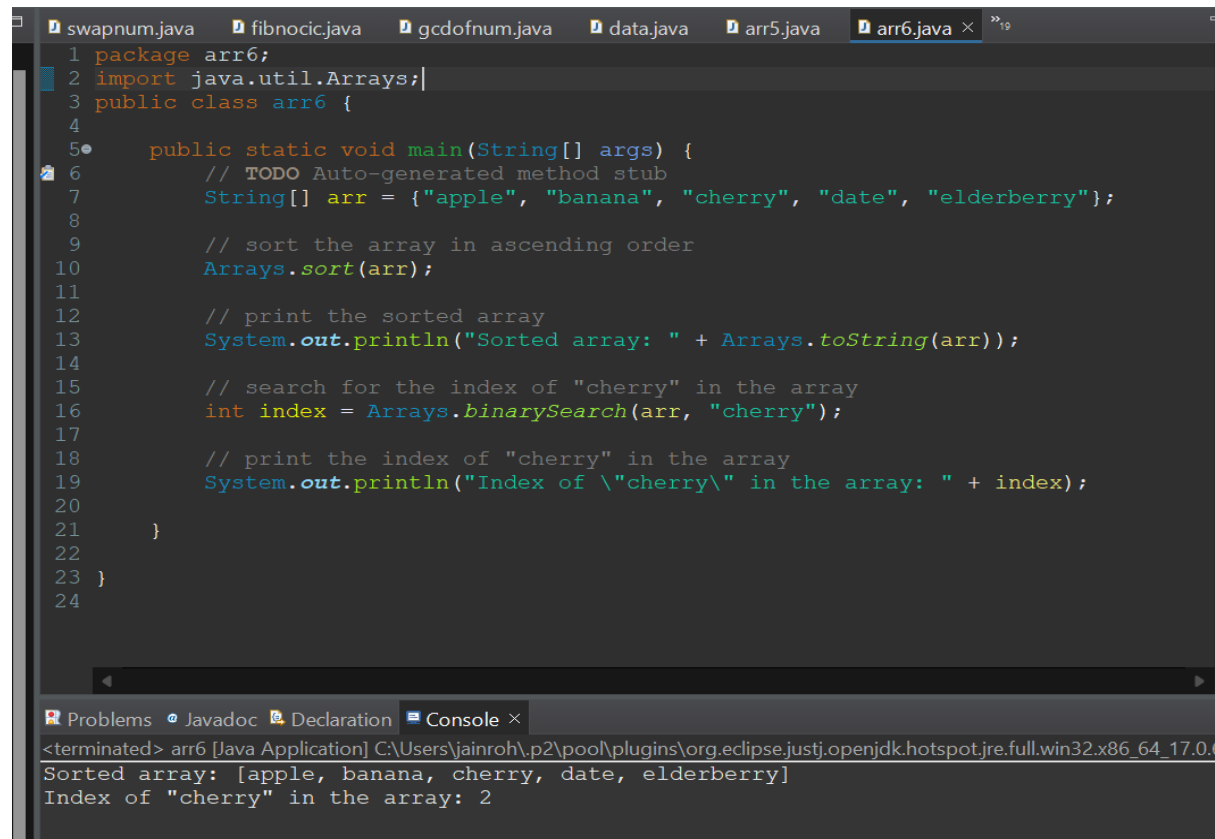https://codeshare.io/mpbxoj

```java
package arr6;
import java.util.Arrays;
public class arr6 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String[] arr = {"apple", "banana", "cherry", "date", "elderberry"};

        // sort the array in ascending order
        Arrays.sort(arr);

        // print the sorted array
        System.out.println("Sorted array: " + Arrays.toString(arr));

        // search for the index of "cherry" in the array
        int index = Arrays.binarySearch(arr, "cherry");

        // print the index of "cherry" in the array
        System.out.println("Index of \"cherry\" in the array: " + index);

    }

}
```

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<terminated> arr6 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.6
Sorted array: [apple, banana, cherry, date, elderberry]
Index of "cherry" in the array: 2

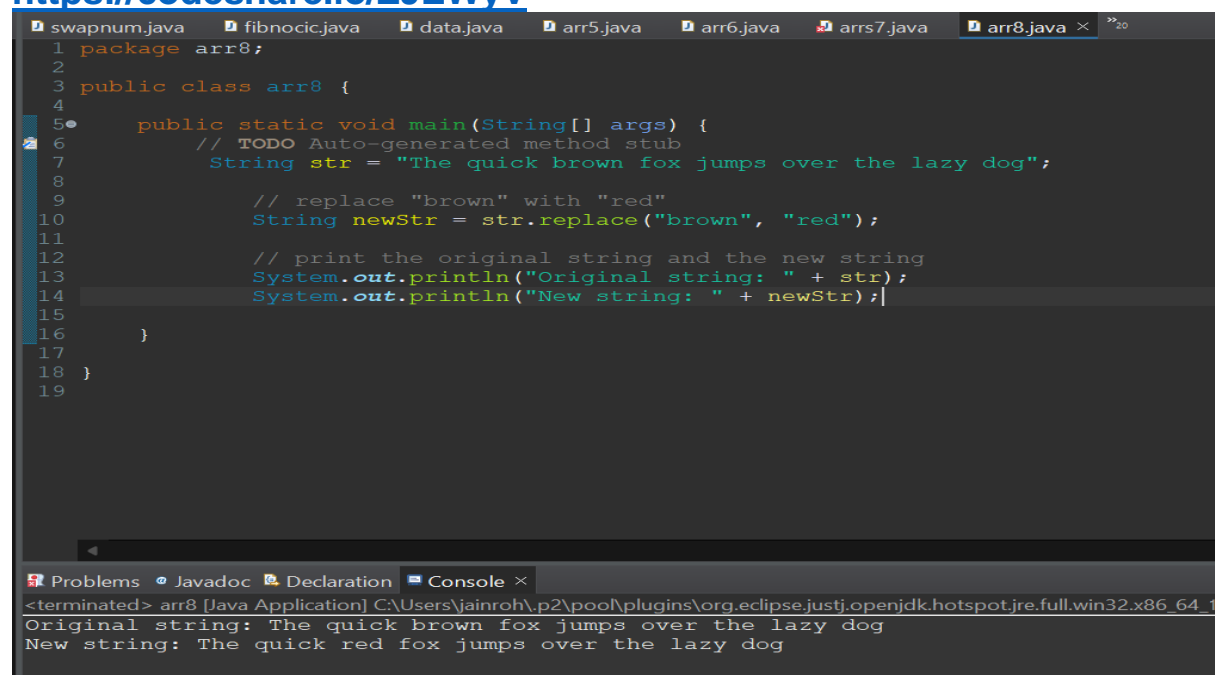**7)** Create a string and use the String class method split() to split the string into an array of substrings.
https://codeshare.io/mpbxoj

```java
package arr6;
import java.util.Arrays;
public class arr6 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String[] arr = {"apple", "banana", "cherry", "date", "elderberry"};

        // sort the array in ascending order
        Arrays.sort(arr);

        // print the sorted array
        System.out.println("Sorted array: " + Arrays.toString(arr));

        // search for the index of "cherry" in the array
        int index = Arrays.binarySearch(arr, "cherry");

        // print the index of "cherry" in the array
        System.out.println("Index of \"cherry\" in the array: " + index);

    }

}
```

Problems Javadoc Declaration Console ×
<terminated> arr6 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.6
Sorted array: [apple, banana, cherry, date, elderberry]
Index of "cherry" in the array: 2

8) Create a string and use the String class method replace() to replace a specific substring in the string with a new substring.
https://codeshare.io/ZJEWyV

```java
package arr8;

public class arr8 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String str = "The quick brown fox jumps over the lazy dog";

        // replace "brown" with "red"
        String newStr = str.replace("brown", "red");

        // print the original string and the new string
        System.out.println("Original string: " + str);
        System.out.println("New string: " + newStr);

    }

}
```

Problems Javadoc Declaration Console ×
<terminated> arr8 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_1
Original string: The quick brown fox jumps over the lazy dog
New string: The quick red fox jumps over the lazy dog

9) Create a string and use the String class method substring() to extract a portion of the string.
https://codeshare.io/xv4YqB

```java
package arr9;

public class arr9 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String str = "The quick brown fox jumps over the lazy dog";

        // extract a portion of the string
        String subStr = str.substring(10, 15);

        // print the original string and the extracted substring
        System.out.println("Original string: " + str);
        System.out.println("Extracted substring: " + subStr);

    }

}
```

Problems @ Javadoc 🔍 Declaration 🖥 Console ×
<terminated> arr9 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_6
Original string: The quick brown fox jumps over the lazy dog
Extracted substring: brown

10) Create a string and use the String class method length() to find the length of the string.
https://codeshare.io/X8E4lk

```java
package arr10;

public class arr10 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String str = "Hello, world!";

        // get the length of the string
        int length = str.length();

        // print the original string and its length
        System.out.println("Original string: " + str);
        System.out.println("Length of string: " + length);

    }

}
```

Problems @ Javadoc 🔍 Declaration 🖥 Console ×
<terminated> arr10 [Java Application] C:\Users\jainroh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.
Original string: Hello, world!
Length of string: 13