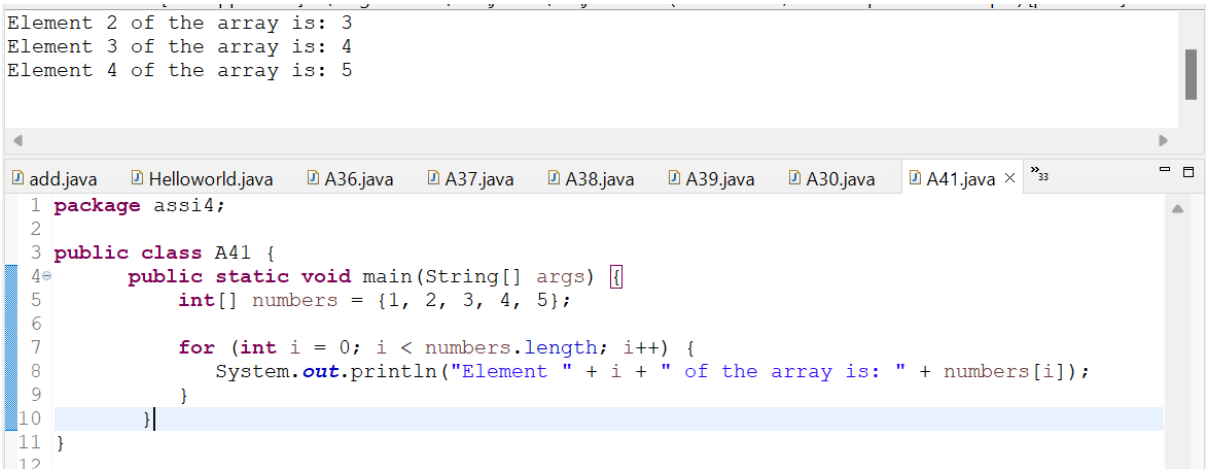
Assignment 4

1. Create an array of integers and use a for loop to print out each element of the array.



```
Element 2 of the array is: 3
Element 3 of the array is: 4
Element 4 of the array is: 5
```

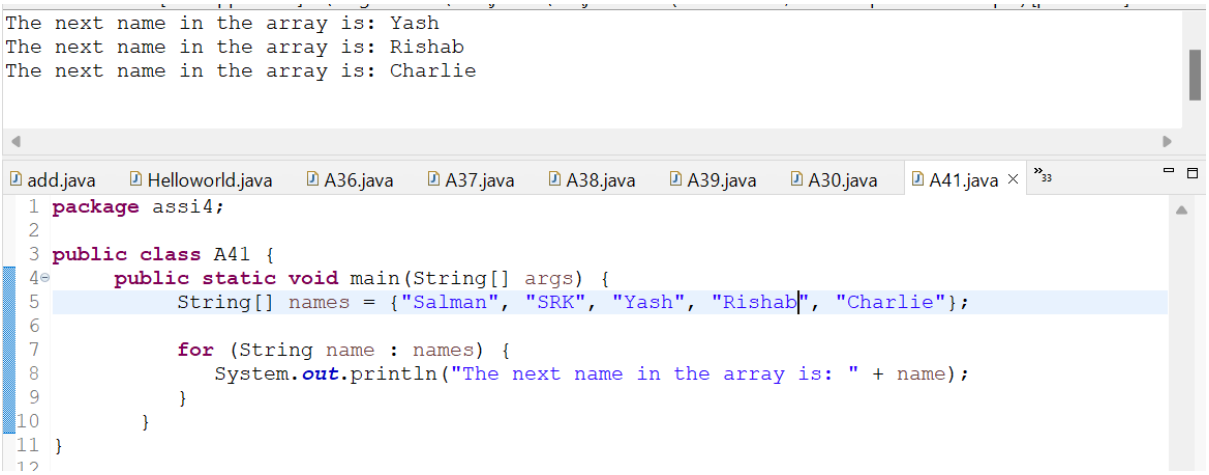
add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```
1  package assi4;
2
3  public class A41 {
4        public static void main(String[] args) {
5            int[] numbers = {1, 2, 3, 4, 5};
6
7            for (int i = 0; i < numbers.length; i++) {
8               System.out.println("Element " + i + " of the array is: " + numbers[i]);
9            }
10       }
11 }
12
```

Codeshare link :

https://codeshare.io/OdEm87

2. Create an array of strings and use a for-each loop to print out each element of the array.



```
The next name in the array is: Yash
The next name in the array is: Rishab
The next name in the array is: Charlie
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```
1  package assi4;
2
3  public class A41 {
4       public static void main(String[] args) {
5            String[] names = {"Salman", "SRK", "Yash", "Rishab", "Charlie"};
6
7            for (String name : names) {
8               System.out.println("The next name in the array is: " + name);
9            }
10       }
11 }
12
```

Codeshare link :

https://codeshare.io/8ploBj

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

```
The next value in the array is: 33.0
The next value in the array is: 34.0
The next value in the array is: 45.0
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```
1  package assi4;
2
3  public class A41 {
4        public static void main(String[] args) {
5            double[] values = {11.0, 22.0, 33.0, 34.0,45.0};
6            int i = 0;
7
8            while (i < values.length) {
9               System.out.println("The next value in the array is: " + values[i]);
10              i++;
11           }
12       }
13 }
```

Codeshare link :

https://codeshare.io/yo0E3z

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

```
The next letter in the array is: c
The next letter in the array is: d
The next letter in the array is: e
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```
1  package assi4;
2
3  public class A41 {
4      public static void main(String[] args) {
5            char[] letters = {'a', 'b', 'c', 'd', 'e'};
6            int i = 0;
7
8            do {
9               System.out.println("The next letter in the array is: " + letters[i]);
10              i++;
11           } while (i < letters.length);
12       }
13 }
14
```

Codeshare link :
https://codeshare.io/ZJEvze

5. Create an array of integers and use the Arrays class method sort() to sort the array in ascending order.

```
The sorted array is: [5, 11, 32, 46, 71, 99]
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```
1  package assi4;
2  import java.util.Arrays;
3  public class A41 {
4
5
6          public static void main(String[] args) {
7              int[] numbers = {71, 32, 99, 11, 46, 5};
8
9              Arrays.sort(numbers);
10
11             System.out.println("The sorted array is: " + Arrays.toString(numbers));
12         }
13 }
14
```

Codeshare link :
https://codeshare.io/K8EbbY

6. Create an array of strings and use the Arrays class method binarySearch() to find the index of a specific string in the array.

```
The index of 'aniksha' is: 4
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```
1  package assi4;
2  import java.util.Arrays;
3  public class A41 {
4
5
6          public static void main(String[] args) {
7              String[] names = {"aniksha", "Raj", "Charlie", "Ram", "Ravana"};
8
9              int index = Arrays.binarySearch(names, "Ravana");
10
11             System.out.println("The index of 'aniksha' is: " + index);
12         }
13 }
14
```

Codeshare link :
https://codeshare.io/mpbEEb

7. Create a string and use the String class method split() to split the string into an array of substrings.

```
Hi
My
name
is
Pavan
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```java
package assi4;

public class A41 {


    public static void main(String[] args) {
          String str = "Hi,My,name,is,Pavan";

          String[] strArr = str.split(",");

          for (String s : strArr) {
             System.out.println(s);
          }
       }
}
```

Codeshare link :
https://codeshare.io/0gvwwL

8. Create a string and use the String class method replace() to replace a specific substring in the string with a new substring.

```
Original string: The quick brown fox jumps over the lazy dog
New string: The quick brown fox jumps over the energetic dog
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```java
package assi4;

public class A41 {


    public static void main(String[] args) {
          // Create a string
          String originalString = "The quick brown fox jumps over the lazy dog";

          // Replace a substring in the string with a new substring
          String newString = originalString.replace("lazy", "energetic");

          // Print the original and new strings
          System.out.println("Original string: " + originalString);
          System.out.println("New string: " + newString);
           }
}
```

Codeshare link :
https://codeshare.io/xv4EwP

9. Create a string and use the String class method substring() to extract a portion of the string.

```
world
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```java
package assi4;

public class A41 {


    public static void main(String[] args) {
        String str = "Hello, world!";
        String substr = str.substring(7, 12); // extract "world"
        System.out.println(substr);
    }
}

```

Codeshare link :
https://codeshare.io/pqkELz

10. Create a string and use the String class method length() to find the length of the string.

```
The length of the string is: 13
```

add.java | Helloworld.java | A36.java | A37.java | A38.java | A39.java | A30.java | A41.java

```java
package assi4;

public class A41 {

      public static void main(String[] args) {
            String str = "Hello, world!";
            int length = str.length();
            System.out.println("The length of the string is: " + length);
        }}

```

Codeshare link :
https://codeshare.io/dwQl9B