JAVA Arrays and String Test

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Q1. Write a program to copy the elements of one array into another array

```
package test OF ArraysString RelatedQuestions;
    import java.util.Arrays;
        public static void main(String[] args) {
             int[] sourceArray = {1, 2, 3, 4, 5};
             int[] destinationArray = new
Int[sourceArray.length];
            for (int i = 0; i < sourceArray.length; i++) {</pre>
                 destinationArray[i] = sourceArray[i];
14.
             System.out.println("Source Array: " +
Arrays.toString(sourceArray));
             System.out.println("Destination Array: " +
Arrays.toString(destinationArray));
18.
19.
```

Q2.Write a program to array elements print all Even number

```
package test_OF_ArraysString_RelatedQuestions;

//Print All Even Numbers from an Array
public class EvenNumbersArray {
   public static void main(String[] args) {
      int[] array = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

      System.out.print("Even numbers: ");
      for (int i = 0; i < array.length; i++) {
         if (array[i] % 2 == 0) {
            System.out.print(array[i] + " ");
          }
      }
   }
}

//output
//Even numbers: 2 4 6 8 10</pre>
```

Q3.Write a program to array elements print all Odd number

Q4. Write a program to search an element in an array

```
package test OF ArraysString RelatedQuestions;
import java.util.Scanner;
   public static void main(String[] args) {
        int[] array = {10, 20, 30, 40, 50};
        Scanner scanner = new Scanner(System.in);
       System.out.print("Enter the number to search: ");
        int number = scanner.nextInt();
        boolean found = false;
        for (int i = 0; i < array.length; <math>i++) {
            if (array[i] == number) {
                found = true;
                System.out.println(number + " found at index
" + i);
                break;
        if (!found) {
           System.out.println(number + " not found in the
```

Q5.Write a program to array elements to print sum of Negative Numbers

```
package test_OF_ArraysString_RelatedQuestions;

//Print the Sum of Negative Numbers in an Array
public class SumOfNegativeNumbers {
    public static void main(String[] args) {
        int[] array = {-1, -2, 3, 4, -5};
        int sum = 0;

        for (int i = 0; i < array.length; i++) {
            if (array[i] < 0) {
                sum += array[i];
            }
        }
        System.out.println("Sum of negative numbers: " +
        sum);
        }
}

//o/p is
//sum of negative numbers: -8</pre>
```

Q6.Write a program to Print Unique Elements in Array

```
//o/p
//Unique elements: 1 3 5
```

Q7.Write a program to array elements print all Positive number

Q7. Write a program to calculate the average value of array elements

```
package test_OF_ArraysString_RelatedQuestions;

//Calculate the Average Value of Array Elements
public class AverageArray {
    public static void main(String[] args) {
        int[] array = {10, 20, 30, 40, 50};
        int sum = 0;

        for (int i = 0; i < array.length; i++) {
            sum += array[i];
        }

        double average = (double) sum / array.length;
        System.out.println("Average value: " + average);
    }
}

//o/p
//Average value: 30.0</pre>
```

Q8. Write a program in to find the sum of all elements of the array

```
package test_OF_ArraysString_RelatedQuestions;

//Find the Sum of All Elements in an Array
public class SumArrayElements {
    public static void main(String[] args) {
        int[] array = {5, 10, 15, 20};
        int sum = 0;

        for (int i = 0; i < array.length; i++) {
            sum += array[i];
        }

        System.out.println("Sum of all elements: " + sum);
    }
}

//o/p
//Sum of all elements: 50</pre>
```

Q9. Write a program to merge two arrays elements to store third array

```
package test_OF_ArraysString_RelatedQuestions;
import java.util.Arrays;

//Merge Two Arrays and Store in a Third Array
public class MergeArrays {
    public static void main(String[] args) {
        int[] array1 = {1, 2, 3};
        int[] array2 = {4, 5, 6};
        int[] mergedArray = new int[array1.length +
        array2.length];

        // Copy elements of array1
        for (int i = 0; i < array1.length; i++) {
            mergedArray[i] = array1[i];
        }

        // Copy elements of array2
        for (int i = 0; i < array2.length; i++) {
            mergedArray[array1.length + i] = array2[i];
        }

        System.out.println("Merged Array: " +
Arrays.toString(mergedArray));
    }
}</pre>
```

```
}
//o/p
//Merged Array: [1, 2, 3, 4, 5, 6]
```

Q10.Write a program to get the canonical representation of the string object

```
package test_OF_ArraysString_RelatedQuestions;

//Get the Canonical Representation of a String Object
public class CanonicalRepresentation {
    public static void main(String[] args) {
        String str = new String("Hello");
        String canonical = str.intern();

        System.out.println("Canonical representation: " + canonical);
    }
}

//o/p
//Canonical representation: Hello
```

Q11.Write a program to check whether a given string ends with the contents of another string

```
package test_OF_ArraysString_RelatedQuestions;

//Check Whether a Given String Ends with the Contents of
Another String
public class EndsWithExample {
    public static void main(String[] args) {
        String str1 = "Hello World";
        String str2 = "World";

        if (str1.endsWith(str2)) {
            System.out.println(str1 + " ends with " + str2);
        } else {
            System.out.println(str1 + " does not end with " + str2);
        }
    }
}

//o/p
//Hello World ends with World
```

Q13.Write a program to check whether two String objects contain the same data

```
package test_OF_ArraysString_RelatedQuestions;

//Check Whether Two String Objects Contain the Same Data
public class StringComparison {
    public static void main(String[] args) {
        String str1 = "Hello";
        String str2 = "Hello";

        if (str1.equals(str2)) {
            System.out.println("The strings are equal.");
        } else {
            System.out.println("The strings are not
equal.");
        }
    }
}

//o/p
//The strings are equal.
```

Q14.Write a program to count a number of Unicode code points in the specified text range of a String

```
package test_OF_ArraysString_RelatedQuestions;

//Count the Number of Unicode Code Points in the Specified
Text Range
public class UnicodeCodePoints {
    public static void main(String[] args) {
        String str = "Hello World";
        int count = str.codePointCount(0, str.length());
        System.out.println("Number of Unicode code points: "
+ count);
    }
}

//o/p
//Number of Unicode code points: 11
```

Q15.Write a program to compare a given string to the specified character sequence

```
package test_OF_ArraysString_RelatedQuestions;

//Compare a Given String to a Specified Character Sequence
public class CompareString {
    public static void main(String[] args) {
        String str = "Hello";
        CharSequence cs = "Hello";

        if (str.contentEquals(cs)) {
            System.out.println("The string matches the character sequence.");
        } else {
            System.out.println("The string does not match the character sequence.");
        }
    }
}

//o/p
//The string matches the character sequence.
```

Q15. Write a program to concatenate Two strings

```
package test_OF_ArraysString_RelatedQuestions;

//Concatenate Two Strings
public class ConcatenateStrings {
    public static void main(String[] args) {
        String str1 = "Hello ";
        String str2 = "World";
        String result = str1.concat(str2); // Concatenates

str1 and str2
        System.out.println("Concatenated string: " +

result);
    }
}

//o/p
//Concatenated string: Hello World
```

Q16.Write a program to Count Number of Uppercase and Lowercase letters

Q17.Write a program to create a character array containing the contents of a string

```
package test_OF_ArraysString_RelatedQuestions;

//Create a Character Array Containing the Contents of a
String
public class StringToCharArray {
    public static void main(String[] args) {
        String str = "Hello";
        char[] charArray = str.toCharArray();
        System.out.print("Character array: ");
        for (char c : charArray) {
            System.out.print(c + " ");
        }
    }
}
```

```
//o/p
//Character array: H e l l o
```

Q19. Write a program to find maximum between two string

```
package test_OF_ArraysString_RelatedQuestions;

//Find the Maximum Between Two Strings
public class MaxString {
    public static void main(String[] args) {
        String str1 = "Apple";
        String str2 = "Banana";

        String max = str1.compareTo(str2) > 0 ? str1 : str2;
        System.out.println("Maximum string: " + max);
    }
}

//o/p
//Maximum string: Banana
```

23. Write a program to create a new string repeating every character twice of a given string

```
package test_OF_ArraysString_RelatedQuestions;

//Create a New String by Repeating Every Character Twice in a Given String 
public class RepeatCharacters { 
   public static void main(String[] args) { 
        String str = "Hello"; 
        StringBuilder repeatedStr = new StringBuilder(); 

        for (char c : str.toCharArray()) { 
            repeatedStr.append(c).append(c); 
        } 

        System.out.println("New string with repeated characters: " + repeatedStr.toString()); 
        } 
} 
//o/p
//New string with repeated characters: HHeelllloo
```