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

import java.util.Arrays;

public class CopyArray {

public static void main(String[] args) {

int[] sourceArray = {1, 2, 3, 4, 5};

int[] destinationArray = new int[sourceArray.length];

System.arraycopy(sourceArray, 0, destinationArray, 0, sourceArray.length);

System.out.println("Destination Array: " + Arrays.toString(destinationArray));

}

}

1. Print All Even Numbers in an Array

public class PrintEvenNumbers {

public static void main(String[] args) {

int[] numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

System.out.println("Even numbers:");

for (int number : numbers) {

if (number % 2 == 0) {

System.out.print(number + " ");

}

}

}

}

1. Print All Odd Numbers in an Array

public class PrintOddNumbers {

public static void main(String[] args) {

int[] numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

System.out.println("Odd numbers:");

for (int number : numbers) {

if (number % 2 != 0) {

System.out.print(number + " ");

}

}

}

}

1. Search for an Element in an Array

import java.util.Scanner;

public class SearchElement {

public static void main(String[] args) {

int[] array = {10, 20, 30, 40, 50};

Scanner scanner = new Scanner(System.in);

System.out.print("Enter element to search: ");

int target = scanner.nextInt();

boolean found = false;

for (int num : array) {

if (num == target) {

found = true;

break;

}

}

if (found) {

System.out.println("Element found.");

} else {

System.out.println("Element not found.");

}

scanner.close();

}

}

1. Print Sum of Negative Numbers in an Array

public class SumNegativeNumbers {

public static void main(String[] args) {

int[] numbers = {-1, 2, -3, 4, -5, 6};

int sum = 0;

for (int number : numbers) {

if (number < 0) {

sum += number;

}

}

System.out.println("Sum of Negative Numbers: " + sum);

}

}

**6. Print Unique Elements in an Array**

import java.util.HashSet;

public class UniqueElements {

public static void main(String[] args) {

int[] numbers = {1, 2, 2, 3, 4, 4, 5};

HashSet<Integer> uniqueSet = new HashSet<>();

for (int number : numbers) {

uniqueSet.add(number);

}

System.out.println("Unique Elements: " + uniqueSet);

}

}

7.Print All Positive Numbers in an Array

public class PrintPositiveNumbers {

public static void main(String[] args) {

int[] numbers = {-1, 2, -3, 4, 5, 6, -7};

System.out.println("Positive numbers:");

for (int number : numbers) {

if (number > 0) {

System.out.print(number + " ");

}

}

}

}

8. Calculate the Average Value of Array Elements

public class AverageArray {

public static void main(String[] args) {

int[] numbers = {10, 20, 30, 40, 50};

int sum = 0;

for (int number : numbers) {

sum += number;

}

double average = (double) sum / numbers.length;

System.out.println("Average: " + average);

}

}

9. Find the Sum of All Elements of the Array

public class SumOfArray {

public static void main(String[] args) {

int[] numbers = {1, 2, 3, 4, 5};

int sum = 0;

for (int number : numbers) {

sum += number;

}

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

}

}

10. Merge Two Arrays to Store in a Third Array

import java.util.Arrays;

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];

System.arraycopy(array1, 0, mergedArray, 0, array1.length);

System.arraycopy(array2, 0, mergedArray, array1.length, array2.length);

System.out.println("Merged Array: " + Arrays.toString(mergedArray));

}

}

11. Get the Canonical Representation of the String Object

public class CanonicalRepresentation {

public static void main(String[] args) {

String str = new String("Hello");

System.out.println("Canonical Representation: " + System.identityHashCode(str));

}

}

12. Check if a String Ends with the Contents of Another String

public class StringEndsWith {

public static void main(String[] args) {

String mainString = "Hello, World!";

String suffix = "World!";

if (mainString.endsWith(suffix)) {

System.out.println("The main string ends with the suffix.");

} else {

System.out.println("The main string does not end with the suffix.");

}

}

}

13. Check if Two String Objects Contain the Same Data

public class CompareStrings {

public static void main(String[] args) {

String str1 = "Hello";

String str2 = "Hello";

if (str1.equals(str2)) {

System.out.println("Both strings are equal.");

} else {

System.out.println("Strings are not equal.");

}

}

}

14. Count Number of Unicode Code Points in the Specified Text Range of a String

public class UnicodeCodePointCount {

public static void main(String[] args) {

String str = "Hello, 🌍!";

int startIndex = 0;

int endIndex = str.length();

int codePointCount = str.codePointCount(startIndex, endIndex);

System.out.println("Number of Unicode code points: " + codePointCount);

}

}

15. Compare a Given String to the Specified Character Sequence

public class CompareCharacterSequence {

public static void main(String[] args) {

String str = "Hello, World!";

CharSequence seq = "Hello, World!";

if (str.contentEquals(seq)) {

System.out.println("The string is equal to the character sequence.");

} else {

System.out.println("The string is not equal to the character sequence.");

}

}

}

**16. Concatenate Two Strings**

**public class ConcatenateStrings {**

**public static void main(String[] args) {**

**String str1 = "Hello, ";**

**String str2 = "World!";**

**String concatenatedString = str1 + str2;**

**System.out.println("Concatenated String: " + concatenatedString);**

**}**

**}**

**17. Count Number of Uppercase and Lowercase Letters**

**public class CountCaseLetters {**

**public static void main(String[] args) {**

**String str = "Hello World!";**

**int uppercaseCount = 0;**

**int lowercaseCount = 0;**

**for (char ch : str.toCharArray()) {**

**if (Character.isUpperCase(ch)) {**

**uppercaseCount++;**

**} else if (Character.isLowerCase(ch)) {**

**lowercaseCount++;**

**}**

**}**

**System.out.println("Uppercase letters: " + uppercaseCount);**

**System.out.println("Lowercase letters: " + lowercaseCount);**

**}**

**}**

**18. Create a Character Array from a String**

**public class StringToCharArray {**

**public static void main(String[] args) {**

**String str = "Hello";**

**char[] charArray = str.toCharArray();**

**System.out.println("Character Array: " + java.util.Arrays.toString(charArray));**

**}**

**}**

**19. Find Maximum Between Two Strings**

**public class MaximumString {**

**public static void main(String[] args) {**

**String str1 = "Apple";**

**String str2 = "Banana";**

**String maxString = str1.compareTo(str2) > 0 ? str1 : str2;**

**System.out.println("Maximum String: " + maxString);**

**}**

**}**

**20. Create a New String Repeating Every Character Twice**

**public class RepeatCharacters {**

**public static void main(String[] args) {**

**String str = "Hello";**

**StringBuilder repeatedString = new StringBuilder();**

**for (char ch : str.toCharArray()) {**

**repeatedString.append(ch).append(ch);**

**}**

**System.out.println("New String: " + repeatedString.toString());**

**}**

**}**