**STRINGS IN JAVA**

**Assignment#4**

**COURSE- JAVA WITH DSA SYSTEM DESIGN**

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1. **Write a simple string program to take input from user.**

**Ans:** import java.util.Scanner;

public class UserInputProgram {

public static void main(String[] args) {

// Create a Scanner object to read input from the user

Scanner scanner = new Scanner(System.in);

// Prompt the user for input

System.out.print("Enter something: ");

// Read the input from the user

String userInput = scanner.nextLine();

// Print out the user's input

System.out.println("You entered: " + userInput);

// Close the scanner to release resources

scanner.close();

}

}

**2.** **How do you concatenate two strings in java? Give an example?**

**Ans:** In Java, you can concatenate two strings using the **+** operator or the **concat()** method

Using the **+** operator:

public class StringConcatenationExample {

public static void main(String[] args) {

String str1 = "Hello, ";

String str2 = "world!";

String result = str1 + str2; // Using the + operator

System.out.println(result); // Output: Hello, world!

}

}

Using the **concat()** method:

public class StringConcatenationExample {

public static void main(String[] args) {

String str1 = "Hello, ";

String str2 = "world!";

String result = str1.concat(str2); // Using the concat() method

System.out.println(result); // Output: Hello, world!

}

}

**3.** **How do you find the length of a string in java explain with an example.**

**Ans:** In Java, you can find the length of a string using the **length()** method that is available for all String objects. This method returns the number of characters in the string, including spaces and special characters. Here's how you can use it:

public class StringLengthExample {

public static void main(String[] args) {

// Create a string

String myString = "Hello, World!";

// Find the length of the string

int length = myString.length();

// Print the length

System.out.println("The length of the string is: " + length);

}

}

In this example, the **length()** method is called on the **myString** object, and the returned length value is stored in the **length** variable. Finally, the length is printed to the console.

Keep in mind that the length returned by **length()** is the number of characters in the string, not the number of bytes or memory used by the string

**4.** **How do you compare two strings in java? give an example**

**Ans:** n Java, you can compare two strings using the **equals()** method or the **compareTo()** method, depending on the kind of comparison you need. The **equals()** method checks if the contents of two strings are exactly the same, while the **compareTo()** method compares strings lexicographically (i.e., based on their Unicode values).

Here's an example demonstrating both methods:

public class StringComparisonExample {

public static void main(String[] args) {

String str1 = "Hello";

String str2 = "World";

String str3 = "Hello";

// Using equals() method for content comparison

boolean areEqual1 = str1.equals(str2); // Returns false

boolean areEqual2 = str1.equals(str3); // Returns true

System.out.println("Using equals():");

System.out.println("str1 equals str2? " + areEqual1);

System.out.println("str1 equals str3? " + areEqual2);

// Using compareTo() method for lexicographical comparison

int comparisonResult1 = str1.compareTo(str2); // Returns a negative value

int comparisonResult2 = str1.compareTo(str3); // Returns 0

System.out.println("\nUsing compareTo():");

System.out.println("str1 compareTo str2: " + comparisonResult1);

System.out.println("str1 compareTo str3: " + comparisonResult2);

}

}

**5. Write a program to find the length of the string "refrigerator".**

**Ans:** public class StringLength {

public static void main(String[] args) {

String str = "refrigerator";

int length = str.length();

System.out.println("The length of the string is: " + length);

}

}

**Output:** The length of the string is: 12

**6.** **Write a program to check if the letter 'e' is present in the word "Umbrella"**

**Ans:** public class LetterCheck {

public static void main(String[] args) {

String word = "Umbrella";

boolean isPresent = false;

for (int i = 0; i < word.length(); i++) {

if (word.charAt(i) == 'e') {

isPresent = true;

break;

}

}

if (isPresent) {

System.out.println("The letter 'e' is present in the word.");

} else {

System.out.println("The letter 'e' is not present in the word.");

}

}

}

**7. Write a program to delete all consonants from the string "Hello, have a good day"**

**Ans:** public class RemoveConsonants {

public static void main(String[] args) {

String input = "Hello, have a good day";

String result = removeConsonants(input);

System.out.println(result);

}

public static String removeConsonants(String input) {

// Convert the input string to lowercase for case-insensitive removal

input = input.toLowerCase();

// Use regular expression to replace all consonants with an empty string

input = input.replaceAll("[^aeiou\\s,]", "");

return input;

}

}

**Output: eoa a oo a**

**THANK YOU!!**

**s**