

Java Project - 3



TASK-1

Description

- 1- How do you, test a calculator? (At least two scenarios)
- 2- How do you test remote-control? (At least two scenarios)
- 3- A windowless room has 3 lightbulbs. You are outside the room with 3 switches, each controlling one of the lightbulbs. If you can only enter the room one time, how can you determine which switch controls which lightbulb?

NOTE: These questions are from the real interview.

TASK-2

Description

Write the program to get the string value from the specified position. First, ask the user to enter one String value. Then ask the user to the enter starting number and ending number. After that, print the value between the given starting and ending numbers.

(Note: since the user does not know the java, the user starts counting from 1, and the ending number will be included)

Example:

Please enter the String value:

Definition of Science

Please enter the starting number:

2

Please enter the ending number

5

The output is:

efin

TASK-3

Description

Please use method chaining for the following Strings. Methods are provided next to the String.

String " Snicker "; —> trim, toUpperCase, substring and charAt methods

String "Cookie" —> toLowerCase, replace 'o' with 'u', concat with 's', starts with 'C'

TASK-4

Description

Using scanner ask the user to enter 3 String words and print true if length of 3 string is same and all of them contains the "java" and all of them starts with upper case any letter.

For Example:

"I love java." -> length is 10

"We use java." -> length is 10

"Java is best" -> length is 10

Since all the sentences contain the java and start with upper case and length is the same the output will be true.

Output:

true

TASK-5

Description

Using the scanner asks the user to enter one sentence with three words and print the index number of each word's last character and then print the sum of each index number that you found.

For Example:

Input:

"Importance of Human" --> it can be any three-word sentence.

Output:

9 --> index number of 'e'

12 --> index number of 'f'

18 --> index number of 'n'

The sum: 39

TASK-6

Description

1. Create a `StringBuilder` object named `strBuilder1` with the initial value of "Programming".
2. Create another `StringBuilder` object named `strBuilder2` with an empty value.
3. Create a third `StringBuilder` object named `strBuilder3` with a capacity of 8.
4. Print the values of all three `StringBuilder` objects.
5. Append the string " Language" to `strBuilder1` and print the updated value.
6. Insert the string "I Love " at the beginning of `strBuilder1` and print the updated value.
7. Delete the substring from index 7 to 11 (inclusive) from `strBuilder1` and print the updated value.
8. Delete the character at index 2 from `strBuilder2` and print the updated value.
9. Reverse the characters in `strBuilder3` and print the updated value.

Note:

- Ensure that you utilize the `append()`, `insert()`, `delete()`, `deleteCharAt()`, and `reverse()` methods as specified in the provided notes.
- Experiment with different scenarios to familiarize yourself with the behavior of each method.
- Print the results after each operation to observe the changes.

TASK-7

Description

Ask for the user to enter a temperature of Celsius and convert it to Fahrenheit)

Example:

Temperature: 49

Type: Fahrenheit

Output: The temperature in Celsius is 9.4 degrees