

Assignment 2

Summer Bootcamp in java

Total Marks: 100
Due Date: 27 July 2024

Solution will be discussed in doubt sessions

Util library in java

1. Write a code in java to take string input from user and find if the string is palindrome or not. For this task you can use built-in methods of string class?

Input:

abcba

Output:

It is palindrome

2. Write a program to take input from user a string. Find the given string is a valid umt email id or not. Deign a generic regular expression for umt faculty and student email id?

Input & Output:

F2023065101@gmail.com valid

101620093@gmail.com invalid

bilalarif@gmail.com valid

bilal.arif@gmail.com valid

3. Take a input date 2024-7-24 from LocalDate.now() and convert this date into 24-7-2024 format with the help of LocalDateFormatter.formate method?
4. Take a date input from string and add 30 days on that date and print new date in dd-mm-yyyy this formate?
5. Take a number string like 123 from user and represent them into roman numbers

Symbol	Value
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

For example, 2 is written as II in Roman numeral, just two ones added together. 12 is written as XII, which is simply X + II. The number 27 is written as XXVII, which is XX + V + II.

6. Given a string `s` containing just the characters '(', ')', '{', '}', '[', and ']', determine if the input string is valid.
- An input string is valid if:
 - Open brackets must be closed by the same type of brackets.
 - Open brackets must be closed in the correct order.
 - Every close bracket has a corresponding open bracket of the same type.

Example 1:

Input: `s = "()"`

Output: `true`

Example 2:

Input: `s = "()[]{}"`

Output: `true`

Example 3:

Input: `s = "(]"`

Output: `false`

7. Find the longest common prefix string amongst an array of strings. If there is no common prefix, return an empty string `""`?

Example 1:

Input: `strs = ["flower", "flow", "flight"]`

Output: `"fl"`

Example 2:

Input: `strs = ["dog", "racecar", "car"]`

Output: `""`

Explanation: There is no common prefix among the input strings.

8. Given a string `s`, remove duplicate letters so that every letter appears once and only once?

Example 1:

Input: `s = "bcabc"`

Output: `"abc"`

Example 2:

Input: `s = "cbacdcbc"`

Output: `"acdb"`

Best of Luck

