**LAB # 4**

**OBJECTIVE**

# To Study String class and String Buffer.

**Question:**

Write a java program to compare any two strings lexicographically and to get the character at the 3 and 4 indexes within the String.

Sample Output:

String 1: This is Exercise 1

String 2: This is Exercise 2

"This is Exercise 1" is less than "This is Exercise 2"

The character at position 0 is T

The character at position 4 is s

**Source Code:**

|  |
| --- |
| package lab4task1;  /\*\*  \*  \* @author Abdul Moiz Chishti  \*/  import java.util.Scanner;  public class Lab4Task1 {  public static void main(String[] args) {    Scanner sc=new Scanner(System.in);  System.out.print("Enter String 1: ");  String str1 = sc.nextLine();  System.out.print("Enter String 2: ");  String str2 = sc.nextLine();    System.out.println("x---------------x");  System.out.println("String 1: " + str1);  System.out.println("String 2: " + str2);  int result = str1.compareTo(str2);  if (result < 0)  {  System.out.println("\"" + str1 + "\"" + " is less than " + "\"" + str2 + "\"");  }  else if (result == 0)  {  System.out.println("\"" + str1 + "\"" + " is equal to " + "\"" + str2 + "\"");  }  else  {  System.out.println("\"" + str1 + "\"" + " is greater than " + "\"" + str2 + "\"");  }    int index1 = str1.charAt(4);  int index2 = str1.charAt(5);  System.out.println("The character at position 3 is " +  (char)index1);  System.out.println("The character at position 4 is " +  (char)index2);  }  } |

**Output:**

|  |
| --- |
|  |

**Question:**

Write a Java program to convert all the characters in a string to lowercase.

Sample Output:

Original String: The Quick BroWn FoX!

String in lowercase: the quick brown fox!

**Source Code:**

|  |
| --- |
| package lab4task2;  /\*\*  \*  \* @author Abdul Moiz Chishti  \*/  import java.util.Scanner;  public class Lab4Task2 {  /\*\*  \* @param args the command line arguments  \*/  public static void main(String[] args) {  // TODO code application logic here  Scanner sc=new Scanner(System.in);  System.out.print("Enter Text: ");  String txt=sc.nextLine();  System.out.println(txt.toLowerCase());  }  } |

**Output:**

|  |
| --- |
|  |

**Question:**

A PALINDROME is a word which has SAME SPELLING whether it is read from Left to Right or from Right to Left. Example: MOM, DAD, DEED, PEEP and NOON. Other words which are not PALINDROME are HELLO, DOOR and FEET. Write a program that can read a String as user input in Capital Letters and then Print YES as Output if the Input is a PALINDROME otherwise NO.

**Source Code:**

|  |
| --- |
| package lab4task3;  /\*\*  \*  \* @author Abdul Moiz Chishti  \*/  import java.util.Scanner;  public class Lab4Task3 {  /\*\*  \* @param args the command line arguments  \*/  public static void main(String[] args) {    String inp, reverse = "";  Scanner sc = new Scanner(System.in);  System.out.print("Enter a string : ");  inp= sc.nextLine();  int length = inp.length();  for ( int i = length - 1; i >= 0; i-- )  reverse = reverse + inp.charAt(i);  if (inp.equals(reverse))  System.out.println("Entered string is a palindrome.");  else  System.out.println("Entered string isn't a palindrome.");  }  } |

**Output:**

|  |
| --- |
| **Graphical user interface, text  Description automatically generatedGraphical user interface, text  Description automatically generated** |

**Question:**

Write a program that extracts username & domain information from Email address.

Example:

if the email address is "user@my.com", your program will print

Username = user

Domain = my

Extension = com

**Source Code:**

|  |
| --- |
| package lab4task4;  /\*\*  \*  \* @author Abdul Moiz Chishti  \*/  import java.util.Scanner;  public class Lab4Task4 {  /\*\*  \* @param args the command line arguments  \*/  public static void main(String[] args) {    Scanner sc=new Scanner(System.in);  System.out.print("Enter Email:");  String email = sc.nextLine();  String name = email.substring(0, email.lastIndexOf("@"));  int length= name.length();  String domain = email.substring((length+1),email.lastIndexOf(".") );  String extension = email.substring(email.lastIndexOf(".") +1);  System.out.println("username: "+name);  System.out.println("Domain:"+domain);  System.out.println("Extension: "+extension);  }  } |

**Output:**

|  |
| --- |
|  |