Lab3\_1

|  |
| --- |
| import java.util.Scanner; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public class Lab3\_1 { |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public static void main(String[] args) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| showMenu(); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static void showMenu() { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| String str; |
|  |

|  |
| --- |
| int ch; |
|  |

|  |
| --- |
| Scanner s = new Scanner(System.in); |
|  |

|  |
| --- |
| System.out.println("Enter a String: "); |
|  |

|  |
| --- |
| str = s.nextLine(); |
|  |

|  |
| --- |
| //str = "sushilsingh"; |
|  |

|  |
| --- |
| System.out.println("1. Add the string to to itself"); |
|  |

|  |
| --- |
| System.out.println("2. Replace odd positions with #"); |
|  |

|  |
| --- |
| System.out.println("3. Remove duplicate characters in the String"); |
|  |

|  |
| --- |
| System.out.println("4. Change odd characters to upper case"); |
|  |

|  |
| --- |
| System.out.println("5. Exit"); |
|  |

|  |
| --- |
| System.out.println("Enter your choice: "); |
|  |

|  |
| --- |
| ch = s.nextInt(); |
|  |

|  |
| --- |
| switch (ch) { |
|  |

|  |
| --- |
| case 1: |
|  |

|  |
| --- |
| addString(str); |
|  |

|  |
| --- |
| break; |
|  |

|  |
| --- |
| case 2: |
|  |

|  |
| --- |
| replaceString(str); |
|  |

|  |
| --- |
| break; |
|  |

|  |
| --- |
| case 3: |
|  |

|  |
| --- |
| removeDuplicate(str); |
|  |

|  |
| --- |
| break; |
|  |

|  |
| --- |
| case 4: |
|  |

|  |
| --- |
| toUpper(str); |
|  |

|  |
| --- |
| break; |
|  |

|  |
| --- |
| case 5: |
|  |

|  |
| --- |
| System.exit(0); |
|  |

|  |
| --- |
| break; |
|  |

|  |
| --- |
| default: |
|  |

|  |
| --- |
| System.out.println("You Entered Wrong Choice!"); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static void toUpper(String str) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| int len = str.length(); |
|  |

|  |
| --- |
| String s1; |
|  |

|  |
| --- |
| char[] ch = str.toCharArray(); |
|  |

|  |
| --- |
| for (int i = 0; i < len; i++) { |
|  |

|  |
| --- |
| if (i % 2 == 0) { |
|  |

|  |
| --- |
| if (ch[i] >= 'a' && ch[i] <= 'z') { |
|  |

|  |
| --- |
| ch[i] -= 32; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| s1 = new String(ch); |
|  |

|  |
| --- |
| System.out.println("After changing odd positions to Upper, string is: " + s1); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static void removeDuplicate(String str) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| int len = str.length(); |
|  |

|  |
| --- |
| String s1 = ""; |
|  |

|  |
| --- |
| char[] ch = str.toCharArray(); |
|  |

|  |
| --- |
| for (int i = 0; i < len; i++) { |
|  |

|  |
| --- |
| if (ch[i] != '$') { |
|  |

|  |
| --- |
| s1 += ch[i]; |
|  |

|  |
| --- |
| for (int j = i + 1; j < len; j++) { |
|  |

|  |
| --- |
| if (ch[i] == ch[j]) { |
|  |

|  |
| --- |
| ch[j] = '$'; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| // s1 = new String(ch); |
|  |

|  |
| --- |
| System.out.println("After removing all duplicates, String is: " + s1); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static void replaceString(String str) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| int len = str.length(); |
|  |

|  |
| --- |
| String s1; |
|  |

|  |
| --- |
| char[] ch = str.toCharArray(); |
|  |

|  |
| --- |
| for (int i = 0; i < len; i++) { |
|  |

|  |
| --- |
| if (i % 2 == 0) { |
|  |

|  |
| --- |
| ch[i] = '#'; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| s1 = new String(ch); |
|  |

|  |
| --- |
| System.out.println("After changing odd positions to #, string is: " + s1); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static void addString(String str) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| str += str; |
|  |

|  |
| --- |
| System.out.println("After adding String to itself, string is: " + str); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

}

Lab3\_2

|  |
| --- |
| import java.util.Scanner; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public class Lab3\_2 { |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public static void main(String[] args) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| String str; |
|  |

|  |
| --- |
| boolean b; |
|  |

|  |
| --- |
| Scanner s = new Scanner(System.in); |
|  |

|  |
| --- |
| System.out.println("Enter the String: "); |
|  |

|  |
| --- |
| str = s.nextLine(); |
|  |

|  |
| --- |
| b = checkString(str); |
|  |

|  |
| --- |
| if (b) { |
|  |

|  |
| --- |
| System.out.println("The given string is positive."); |
|  |

|  |
| --- |
| } else { |
|  |

|  |
| --- |
| System.out.println("The given string is NOT positive."); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static boolean checkString(String str) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| char[] c = str.toCharArray(); |
|  |

|  |
| --- |
| int v = 0, j; |
|  |

|  |
| --- |
| for (int i = 0; i < c.length - 1; i++) { |
|  |

|  |
| --- |
| j = i + 1; |
|  |

|  |
| --- |
| if ((int) c[i] < (int) c[j]) { |
|  |

|  |
| --- |
| v += 1; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| else { |
|  |

|  |
| --- |
| break; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| if (v == c.length - 1) { |
|  |

|  |
| --- |
| return true; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| return false; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

}

Lab3\_7

|  |
| --- |
| import java.util.Scanner; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public class Lab3\_7 { |
|  |

|  |
| --- |
| static Scanner s = new Scanner(System.in); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public static void main(String[] args) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| String str; |
|  |

|  |
| --- |
| boolean b; |
|  |

|  |
| --- |
| System.out.println("Enter Your Username: "); |
|  |

|  |
| --- |
| str=s.nextLine(); |
|  |

|  |
| --- |
| int len=str.length(); |
|  |

|  |
| --- |
| if(len>=12) { |
|  |

|  |
| --- |
| b=validUsername(str); |
|  |

|  |
| --- |
| if(b) { |
|  |

|  |
| --- |
| System.out.println("Username "+str+" is valid!"); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| }else { |
|  |

|  |
| --- |
| System.out.println("Username "+str+" is not valid!"); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| private static boolean validUsername(String str) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| int i = str.length() - 4, j = str.length(); |
|  |

|  |
| --- |
| String s1 = str.substring(i, j); |
|  |

|  |
| --- |
| if (s1.compareTo("\_job") == 0) { |
|  |

|  |
| --- |
| return true; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| return false; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

}

Lab3\_8

|  |
| --- |
| import java.util.Scanner; |
|  |

|  |
| --- |
| import java.util.Arrays; |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public class Lab3\_8 { |
|  |

|  |
| --- |
| static Scanner s = new Scanner(System.in); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| public static void main(String[] args) { |
|  |

|  |
| --- |
| // TODO Auto-generated method stub |
|  |

|  |
| --- |
| String str; |
|  |

|  |
| --- |
| System.out.println("Enter the string: "); |
|  |

|  |
| --- |
| str = s.nextLine(); |
|  |

|  |
| --- |
| String[] s2 = str.split(" "); |
|  |

|  |
| --- |
| int len = s2.length; |
|  |

|  |
| --- |
| for (int i = 0; i < len - 1; i++) { |
|  |

|  |
| --- |
| for (int j = i + 1; j < len; j++) { |
|  |

|  |
| --- |
| if (s2[i].compareTo(s2[j]) > 0) { |
|  |

|  |
| --- |
| String temp = s2[i]; |
|  |

|  |
| --- |
| s2[i] = s2[j]; |
|  |

|  |
| --- |
| s2[j] = temp; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| if (len % 2 == 0) { |
|  |

|  |
| --- |
| for (int i = 0; i < len / 2; i++) { |
|  |

|  |
| --- |
| s2[i] = s2[i].toUpperCase(); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| } else { |
|  |

|  |
| --- |
| for (int i = 0; i < (len / 2) + 1; i++) { |
|  |

|  |
| --- |
| s2[i] = s2[i].toUpperCase(); |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| String s3 = ""; |
|  |

|  |
| --- |
| for (int i = 0; i < len; i++) { |
|  |

|  |
| --- |
| s3 += s2[i]; |
|  |

|  |
| --- |
| s3 += " "; |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
| System.out.println("the output string is: " + s3); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| } |
|  |

|  |
| --- |
|  |
|  |

}