Java Programming [CSE201] Enrolment No.:23DCS100

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY

**DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY & RESEARCH**

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Part - 2

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| **No.** | **Aim of the Practical** |
| 7. | Given a string and a non-negative int n, we'll say that the front of the string is the first 3 chars, or whatever is there if the string is less than length 3. Return n copies of the front;  front\_times('Chocolate', 2) → 'ChoCho'  front\_times('Chocolate', 3) → 'ChoChoCho'  front\_times('Abc', 3) → 'AbcAbcAbc'  **PROGRAM CODE:**  import java.util.Scanner;  public class JAVA\_P7 {  public static void main(String[] args) {  String name;  int n;  Scanner sc = new Scanner(System.in);  System.out.println("Enter String: ");  name = sc.nextLine();  System.out.println("Enter how many times you want to print: ");  n = sc.nextInt();  System.out.println(front\_times(n, name));  }  public static String front\_times(int n, String name) {  int value = name.length();  String result = "";  String print;  if (value >= 3) {  print= name.substring(0, 3);  } else {  print = name.substring(0, value);  }  for (int i = 0; i < n; i++) {  result += print;  }  return result;  }  }  **OUTPUT:**        **CONCLUSION:**  This java code takes string as an input and find the length of string to check , if it’s length is greater than 3 or not.If string length length is greater than 3 then it will print first 3 character of the string for ‘n’ times(n is an integer which will be taken from user).If string length less than 3 then it will print that whole string for ‘n’ times. |
| 8. | Given an array of ints, return the number of 9's in the  array. array\_count9([1, 2, 9]) → 1  array\_count9([1, 9, 9]) → 2  array\_count9([1, 9, 9, 3, 9]) → 3  **PROGRAM CODE:**  public class JAVA\_P8 {  public static void main(String[] args) {  int[] array1 = {1, 2, 9};  int[] array2 = {1, 9, 9};  int[] array3 = {1, 9, 9, 3, 9,9};  System.out.println(arrayCount9(array1));  System.out.println(arrayCount9(array2));  System.out.println(arrayCount9(array3));  }  public static int arrayCount9(int[] nums) {  int count = 0;  // for (int num : nums) {  for(int i=0;i<nums.length;i++){  if (nums[i] == 9) {  count++;  }  }  return count;  }  }  **OUTPUT:**    **CONCLUSION:**  This java code has initialized integer arrays. In this code ‘arraycount9’ function check that in the each array how many 9 present. This function will return the count of 9’s . This function will be called in main function and then print the count. |
| 9. | Given a string, return a string where for every char in the original, there are two chars.  double\_char('The') → 'TThhee'  double\_char('AAbb') → 'AAAAbbbb'  double\_char('Hi-There') → 'HHii--TThheerree'  **PROGRAM CODE:**  public class JAVA\_P9 {  public static void main(String[] args) {  System.out.println(double\_char("The"));  System.out.println(double\_char("AABB"));  System.out.println(double\_char("Hi-There"));  }  public static String double\_char(String str){  String result="";  char ch=0;  for(int i=0;i<str.length();i++){  ch=str.charAt(i);  result+=ch;  result+=ch;  }  return result;  }  }  **OUTPUT:**    **CONCLUSION:**  In this Java program, we defines a `double\_char` method that takes a string and returns a new string where each character is repeated twice. For example, "The" becomes "TThhee," "AABB" becomes "AAAABBBB," and "Hi-There" becomes "HHii--TThheerree." The `main` method demonstrates this functionality by printing the results for these input strings. |
| 10. | Perform following functionalities of the string:  ● Find Length of the String  ● Lowercase of the String  ● Uppercase of the String  ● Reverse String  Sort the string  **PROGRAMCODE:**  import java.util.Arrays;  public class JAVA\_P10 {  public static void main(String[] args) {  String str="Hello";  String pqr="Daksh";  StringBuilder str1=new StringBuilder();  System.out.println("Length of string : "+str.length());  System.out.println("Lowercase of String : "+str.toLowerCase());  System.out.println("Uppercase of the string : "+str.toUpperCase());  str1.append(str);  System.out.println("Reverse string : "+str1.reverse());  if(!str.isEmpty()){  String tqr=str.toUpperCase();  char tempArray[] = tqr.toCharArray();  Arrays.sort(tempArray);  System.out.println("Sort the string : "+new String(tempArray));  }  }  }  **OUTPUT:**    **CONCLUSION :**  This Java program manipulates the string "Hello" by converting it to lowercase and uppercase, reversing it, and sorting its characters. It also checks if the string is not empty before sorting its characters in uppercase form. |
| 11. | Perform following Functionalities of the string: “CHARUSAT UNIVERSITY”  ● Find length  ● Replace ‘H’ by ‘FIRST LATTER OF YOUR NAME’  ● Convert all character in lowercase  **PROGRAM CODE :**  public class JAVA\_P11 {  public static void main(String[] args) {  String str="CHARUSAT UNIVERSITY";  System.out.println("Length of the string : "+str.length());  System.out.println("After replace 'H' by 'D' : "+str.replace('H', 'D'));  System.out.println("Convert all characters in lowercase : "+str.toLowerCase());  }  }  **OUTPUT:**    **CONCLUDION:**  The Java program demonstrates string manipulation by printing the length of "CHARUSAT UNIVERSITY," replacing 'H' with 'D,' and converting all characters to lowercase. It showcases basic string operations like length calculation, character replacement, and case conversion. |