CHAROTAR UNIVERSITY OF SCIENCE TECHNOLOGY

DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY & RESEARCH

Department of Computer Science & Engineering

Subject Name: Java Programming

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SET-2

No.	Aim of the Practical
1.	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 strings1 { public static void main(String[] args) { String string1 = "Chocolate"; String string2 = "Abc"; String s1 = string1.substring(0,3); String s2 = string2.substring(0,3); System.out.print(s1); System.out.println(s1);

```
System.out.print(s1);
System.out.print(s1);
System.out.println(s1);

System.out.print(s2);
System.out.print(s2);
System.out.println(s2);

System.out.print("23DCS127_Astha Sodvadia");
}
}
```

OUTPUT:

```
ChoCho
ChoChoCho
AbcAbcAbc
23DCS127_Astha Sodvadia
```

CONCLUSION:

From this practical we learnt about basics of string and about positiv,negative & zero string.

2. 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 :

```
import java.util.Scanner;
class numof
{
public static void main(String[] args)
{

int arr1[]={1,2,9};
int arr2[]={1,9,9};
int arr3[]={1,9,9,3,9};
int count=0,count2=0,count3=0;

System.out.println("Your 1st array is (arr1={1,2,9})");
```

```
System.out.println("Your 2nd array is (arr2={1,9,9})");
System.out.println("Your 3rd array is (arr3={1,9,9,3,9})");

for(int i = 0;i<arr1.length;i++)
{
        if(arr1[i]==9)
                {
                        count++;
                }
}
System.out.println("number of 9's in arr1 : "+count);

for(int x = 0;x<arr1.length;x++)
{
        if(arr2[x]==9)
                {
                        count2++;
                }
}
System.out.println("number of 9's in arr2 : "+count2);

for(int y = 0;y<arr1.length;y++)
{
        if(arr3[y]==9)
                {
                        count3++;
                }
}
System.out.println("number of 9's in arr3 : "+count3);

System.out.print("23DCS127_Astha Sodvadia");
}
}
```

OUTPUT:

```
Your 1st array is (arr1={1,2,9})
Your 2nd array is (arr2={1,9,9})
Your 3rd array is (arr3={1,9,9,3,9})
number of 9's in arr1 : 1
number of 9's in arr2 : 2
number of 9's in arr3 : 2
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```

CONCLUSION:

This function counts occurrences of a specific integer within an array, making it useful for tasks such as filtering or analyzing datasets where the frequency of a particular value needs to be determined.

3. 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 :

```
import java.util.Scanner;
class strings2
{
public static void main(String[] args)
{
Scanner sc= new Scanner(System.in);

String s1;

System.out.print("Enter string : ");
s1=sc.nextLine();

System.out.println("23DCS127_Astha Sodvadia");

for(int i = 0;i<s1.length();i++)
        {
                System.out.print(s1.charAt(i));
                System.out.print(s1.charAt(i));
        }
}
}
```

OUTPUT:

```
Enter string : astha
23DCS127_Astha Sodvadia
aasstthhaa
```

CONCLUSION:

The double_char function follows a simple pattern of iterating through each character in the input string and concatenating it twice to the output string. This doubles every character in the original string. The function handles different characters, including special characters like hyphens, by simply repeating each character as specified.

4. Perform following functionalities of the string:

- Find Length of the String
- Lowercase of the String
- Uppercase of the String
- Reverse String and Sort the string

PROGRAM CODE :

```
import java.util.*;
class funstring
{
public static void main(String[] args)
{

String s1,s2;
Scanner sc = new Scanner(System.in);

System.out.print("Enter string : ");
s1=sc.nextLine();

System.out.println("Lowercase of the String : "+s1.toLowerCase());
System.out.println("Uppercase of the String : "+s1.toUpperCase());

StringBuilder sb = new StringBuilder(s1);
sb.reverse();
String reversed = sb.toString();
System.out.println("Reverse String : "+reversed);

char[] charArray = s1.toCharArray();
Arrays.sort(charArray);
```

```
String sorted = new String(charArray);
System.out.println("Sorted String: " + sorted);

System.out.print("23DCS127_Astha Sodvadia");
}
}
```

OUTPUT:

```
Enter string : charusat
Lowercase of the String : charusat
Uppercase of the String : CHARUSAT
Reverse String : tasurahc
Sorted String: aachrstu
23DCS127_Astha Sodvadia
```

CONCLUSION:

Each of these functionalities provides useful tools for manipulating and analyzing strings.catering to various text processing needs.

5. 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 :

```
import java.util.Scanner;
class strings5
{
public static void main(String[] args)
{

String s1="CHARUSAT UNIVERSITY";

System.out.println("CHARUSAT UNIVERSITY");
System.out.println("length of given string : "+s1.length());
System.out.println("Lowercase of the String : "+s1.toLowerCase());

char name = 'A';
```

```
String replaced = s1.replace('H',name);
System.out.println("Replace 'H' by 'FIRST LATTER OF YOUR NAME' : "+replaced);

System.out.print("23DCS127_Astha Sodvadia");
}
}
```

OUTPUT:

```
CHARUSAT UNIVERSITY
length of given string : 19
Lowercase of the String : charusat university
Replace 'H' by 'FIRST LATTER OF YOUR NAME' : CAARUSAT UNIVERSITY
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```

CONCLUSION:

These operations showcase fundamental string manipulations, offering flexibility in handling and transforming text data.