OBJECT ORIENTED PROGRAMMING WITH JAVA 8– LAB

Q1.Create a string with value “Software Training and Development Centre” and do the following:

a) Display its length.

b) Check whether the string ends with “Centre” or not.

c) Extract characters from position 9 to 16.

Program:

a) Display its length.:

```
class StringValue
{
 public static void main(String args[])
 {
   String s1 = new String("Software Training and Development Centre");
   System.out.println("Length = " + s1.length());
 }
}
```

```
E:\java_notes>javac StringValue.java

E:\java_notes>java StringValue
Length = 40
```

b) Check whether the string ends with “Centre” or not.

```
class StringValue
{
 public static void main(String args[])
 {
   String s1 = new String("Software Training and Development Centre");
   System.out.println("Length = " + s1.length());
   System.out.println("Ends with 'Centre'  =" + s1.endsWith("Centre"));
 }
}
```

```
E:\java_notes>java StringValue
Length = 40
Ends with 'Centre'  =true
```

c) Extract characters from position 9 to 16.

```
class StringValue
{
 public static void main(String args[])
 {
   String s1 = new String("Software Training and Development Centre");
   System.out.println("Length = " + s1.length());
   System.out.println("Ends with 'Centre'  =" + s1.endsWith("Centre"));
   System.out.println("Characters :" + s1.substring(9,16));
 }
}
```

```
E:\java_notes>java StringValue
Length = 40
Ends with 'Centre'  =true
Characters :Trainin
```

Q2. Write a program that would accept a line of text. Count the occurrence of each vowel in the text and display the count.

Program:

```
 import java.util.Scanner;
class CountVowel
{
  public static void main(String args[])
  {
    Scanner s = new Scanner(System.in);
    System.out.println("Enter a line of Text : ");
    String text = s.nextLine();
    text = text.toLowerCase();
    int[] vowelCount = CountVowels(text);
    System.out.println("Count of 'a' :"+vowelCount[0]);
    System.out.println("Count of 'e' :"+vowelCount[1]);
    System.out.println("Count of 'i' :"+vowelCount[2]);
    System.out.println("Count of 'o' :"+vowelCount[3]);
    System.out.println("Count of 'u' :"+vowelCount[4]);
  }
    public static int[] CountVowels(String text)
    {
     int[] count = new int[5];
     for(int i = 0; i<text.length(); i++) {
     char ch = text.charAt(i);
     switch(ch) {
       case 'a' :A
            count[0]++;
            break;
       case 'e' :
            count[1]++;
            break;
       case 'i' :
            count[2]++;
            break;
       case 'o' :
            count[3]++;
            break;
       case 'u' :
```

```
            count[4]++;
            break;
        }
    }
        return count;
}
}
```

Output:

```
E:\java_notes>java CountVowel
Enter a line of Text :
I am doing DBDA course
Count of 'a' :2
Count of 'e' :1
Count of 'i' :2
Count of 'o' :2
Count of 'u' :1
```

Q3. Write a program to display the number of words in a given sentence.

```
import java.util.Scanner;
class CountWords
{
  public static void main(String[] args)
  {
    Scanner s = new Scanner(System.in);
    System.out.println("Enter the sentence :");
    String sent =s.nextLine();
    String [] words = sent.split("\\s+");
    int wordCount = words.length;
    System.out.println("Number of words in the sentence :" + wordCount);
   }
}
```

```
E:\java_notes>java CountWords
Enter the sentence :
My name is rashi,doing PG-DBDA course,tvm
Number of words in the sentence :6
```

Q4. 4. Accept the given text as input. Replace all occurrences of “you” by “they” and display the resultant string.

“You are not happy because you are well. You are well because you are happy. You are not depressed because trouble has come, but trouble has come because you are depressed."

Program:

```
import java.util.Scanner;
class ReplaceYou
{
  public static void main(String[] args)
  {
  Scanner s = new Scanner(System.in);
  System.out.println("Enter the sentence :");
  String s1 = s.nextLine();
  System.out.println();
  System.out.println("After replace  : " + "\t" + s1.replace("you","they"));

  }
}
```

```
E:\java_notes>javac ReplaceYou.java

E:\java_notes>java ReplaceYou
Enter the sentence :
you are not happy because you are not well.you are well because you are happy.you are depresse
d because trouble has come ,but trouble has come because you rare depressed

After replace  :        they are not happy because they are not well.they are well because the
y are happy.they are depressed because trouble has come ,but trouble has come because they rar
e depressed
```

Q5 Write a program to arrange a given set of names in alphabetical order.

Program:

```
import java.util.Arrays;
import java.util.Scanner;
class SortArray
{
  public static void main(String args[])
  {
    Scanner s = new Scanner(System.in);
    System.out.println("Enter some names :");
    String insert = s.nextLine();
    String [] names = insert.split(" ");
    Arrays.sort(names);
    System.out.println("Sorted names :" );
    for(String name : names ) {
         System.out.println(name);
        }
   }
}
```

```
E:\java_notes>javac SortArray.java

E:\java_notes>java SortArray
Enter some names :
BEBO SARA NEIL SHRAVAN
Sorted names :
BEBO
NEIL
SARA
SHRAVAN
```