JAVA-Week 8

Objective: Implement the concepts of Keyboard input and string handling in Java.
Assignments:

1. Write a Java program for calculating Factorial. Number should be taken through user input (Using Scanner, BufferedReader both).

```
package Week7;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class Factorial_Three_Exception {

	static void fact(int n)
	{
		int z=n;
		int fact=1;
		 while(n>1)
		 {
			fact*=n;
			n--;
		 }
		 System.out.println("Factorial of "+z+" = "+fact);
	}


	public static void main(String args[]) throws IOException
	{
		Scanner sc=new Scanner(System.in);
		String str=sc.next();
		int n=Integer.parseInt(str);
		fact(n);
		 InputStreamReader r=new InputStreamReader(System.in);
		 BufferedReader br=new BufferedReader(r);
		 str=br.readLine();
		 n=Integer.parseInt(str);
		     fact(n);

	}
}

5
```

```
Factorial of 5 = 120
10
Factorial of 10 = 3628800
```

2. Design a palindrome class that will input a string from console and check whether the string is palindrome or not.

```
package Week8;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class Palindrome String {
     static void palindrome(String str)
     {
          int i=0;
          int j=str.length();
          j--;
          int flag=0;
          while(i!=j)
          {
               if(str.charAt(i++)!=str.charAt(j--))
               {
                    flag=1;
                    break;
               }
          }
          if(flag==0)
               System.out.print("Palindrome");
          else
               System.out.print("Not Palindrome");
     }


     public static void main(String args[]) throws IOException
     {
          Scanner sc=new Scanner(System.in);
          String str=sc.next();
          palindrome(str);

     }
}

UEM
Not Palindrome
```

```
UEMEU
Palindrome
```

3. Write a Java program to merge two strings.

```
package Week8;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class Merge_String {


	public static void main(String args[]) throws IOException
	{
		String s1="UEMK";
		String s2="CSE";
		String s3=s1.concat(s2);
		System.out.print("Meged String :"+s3);

	}
}
Meged String :UEMKCSE
```

4. Write a Java program for reverse a string. (String will be taken as user input through console).

```
package Week8;

import java.util.Scanner;

public class Reverse_String {
	public static void main(String args[])
	{
		Scanner sc=new Scanner(System.in);
		String s=sc.next();
		StringBuffer str=new StringBuffer(s);
		System.out.println(str.reverse());

	}
}
```

5. Write a Java Program to Concatenate Two Strings.

```
package Week8;

	import java.io.BufferedReader;
```

```
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class Concat_String {


        public static void main(String args[]) throws
IOException
        {
              String s1="UEMK";
              String s2="CSE";
              String s3=s1.concat(s2);
              System.out.print("Concated String :"+s3);

        }
}
Concated String :UEMKCSE
```

6. Write a Java Program to check if a Given String is getChar from Specific Index.

```
package Week8;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class CharAt_String {


        public static void main(String args[]) throws
IOException
        {
              String s1="UEMK";

              System.out.print("Char at 1st
pos:"+s1.charAt(0));

        }
}
Char at 1st pos:U
```

7. Write a Java Program to Find the Length of the String.

```
package Week8;

public class Length_String {
```

```
          public static void main(String args[]) throws
IOException
          {
               String s1="UEMK";

          System.out.print("Length :"+s1.length());
                    }
}
 Length :4
```

8. Write a Java Program to Find All Possible Subsets of given Length in String.

```
package Week8;

     import java.io.BufferedReader;
     import java.io.IOException;
     import java.io.InputStreamReader;
     import java.util.Scanner;

     public class Length String {


          public static void main(String args[]) throws
IOException
          {
               String s1="UEMK";
               int c=0;
               for(int i=0;i<s1.length()-1;i++)
               {
                    for(int j=i+1;j<s1.length();j++)
                    {
                         System.out.print("Subset "+c+" : ");
                         System.out.println(s1.substring(i,j));
                         c++;
                    }
               }
          }
     }
Subset 0 : U
Subset 1 : UE
Subset 2 : UEM
Subset 3 : E
Subset 4 : EM
Subset 5 : M
```

9. Write a Java Program to Remove the White Spaces from a String.

```
package Week8;

import java.io.IOException;

public class Trim_String {

	public static void main(String args[]) throws IOException
	{
		String s1="              UEMK_CSE         ";
		System.out.print(s1.trim());

	}
}
UEMK_CSE
```

10. Write a Java Program to Compare two Strings.

```
package Week8;

import java.io.IOException;

public class Compare_String {



	public static void main(String args[]) throws IOException
	{
		String s1="UEMK";
		String s2="UEMJ";
		System.out.print("Diffrence :"+s1.compareTo(s2));
	}
}
Diffrence :1
```

11. Write a Java Program to Compare Performance of Two Strings.

```
package Week8;

import java.io.IOException;

public class Compare_String {

	public static void main(String args[]) throws IOException
	{
		String s1="UEMK";
		String s2="UEMJ";
		if(s1.compareTo(s2)<0)
```

```
                System.out.print("S2>S1");
            else if(s1.compareTo(s2)>0)
                System.out.print("S2<S1");
            else
                System.out.print("S2=S1");

    }
}
S2<S1
```

12. Write a Java Program to Use Equals Method In a String Class.

```
package Week8;

import java.io.IOException;

public class Equals_String {

    public static void main(String args[]) throws IOException
    {
        String s1="UEMK";
        String s2="UEMJ";
        if(s1.equals(s2))
            System.out.print("S2==S1");
        else
            System.out.print("S2!=S1");

    }
}
S2!=S1
```

13. Write a Java Program to Use EqualsIgnoreCase Method In a String Class.

```
package Week8;

import java.io.IOException;

public class Equals_Ignore_String {

    public static void main(String args[]) throws IOException
    {
        String s1="UEMK";
        String s2="uemk";
        if(s1.equalsIgnoreCase(s2))
            System.out.print("S2==S1");
        else
            System.out.print("S2!=S1");

    }
```

```
}
S2==S1
```

14. Write a Java Program to Use compareTo Method In a String Class.

```
package Week8;

import java.io.IOException;

public class Compare_String {

	public static void main(String args[]) throws IOException
	{
		String s1=new String("UEMK");
		String s2=new String("UEMJ");
		if(s1.compareTo(s2)<0)
			System.out.print("S2>S1");
		else if(s1.compareTo(s2)>0)
			System.out.print("S2<S1");
		else
			System.out.print("S2=S1");

	}
}
S2<S1
```

15. With a Java Program to Use compareToIgnoreCase Method In a String Class.

```
package Week8;

import java.io.IOException;

public class Compare_Ignore_String {

	public static void main(String args[]) throws IOException
	{
		String s1=new String("UEMK");
		String s2=new String("uemk");
		if(s1.compareToIgnoreCase(s2)<0)
			System.out.print("S2>S1");
		else if(s1.compareToIgnoreCase(s2)>0)
			System.out.print("S2<S1");
		else
			System.out.print("S2=S1");

	}
}
S2=S1
```

16. Write a Java Program to Replace Character or String.

```
package Week8;

import java.io.IOException;

public class Replace_String {

	public static void main(String args[]) throws IOException
	{
		String s1=new String("UEMK");
		StringBuffer s2=new StringBuffer(s1);
		s2.replace(3,4,"J");
		System.out.print("UEMK->"+s2);
	}
}
```

```
UEMK->UEMJ
```

17. Write a Java Program to Search Last Occurance of a Substring Inside a Substring.

```
package Week8;


public class Last_Occurence_String {

	public static void main(String args[])
	{
		String s1="UEMK UEMJ";
		String s="UEM";
		int lastIndex = s1.lastIndexOf(s);

                    if(lastIndex == - 1){
                       System.out.println("UEM not found");
                    } else {
                       System.out.println("Last occurrence of
UEM is at index "+ lastIndex);
                    }
                }
	}
```

```
Last occurrence of UEM is at index 5
```

18. Write a Java Program to Remove a Particular Character from a String.

```
package Week8;

public class Remove_String {

	public static void main(String args[])
```

```
	{
		StringBuffer s=new StringBuffer("UEMK");
		s.deleteCharAt(3);
		System.out.print(s);
	}
}
UEM
```

19. Write a Java Program to Replace a Substring Inside a String by Another One.

```
package Week8;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class Replace_Substring_String {


	public static void main(String args[]) throws IOException
	{
		String s="UEMK";
		StringBuffer s2=new StringBuffer("UEMK");
		s2.replace(1,3,s);
		System.out.print(s2);
	}
}
UUEMKK
```

20. Write a Java Program to Reverse a String.

```
package Week8;

import java.util.Scanner;

public class Reverse_String {
	public static void main(String args[])
	{
		Scanner sc=new Scanner(System.in);
		String s=sc.next();
		StringBuffer str=new StringBuffer(s);
		System.out.println(str.reverse());

	}
}
UEMK
KMEU
```

21. Write a Java Program to Search a Word Inside a String.

```
package Week8;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;

public class Search_String {


	public static void main(String args[]) throws IOException
	{
		String s="UEMK ";
		if(s.contains("UEM"))
		System.out.print("Found");
		else
			System.out.print("Not-Found");
	}
}
Found
```

22. Write a Java Program to Split a String into a Number of Substrings.

```
package Week8;

public class Split_String {

	public static void main(String args[])
	{
		String s1="UEMK UEMJ";
		String s[]=s1.split(" ");
		for(int i=0;i<s.length;i++)
			System.out.println(s[i]);
	}
}
UEMK
UEMJ
```

23. Write a Java Program to Search a Particular Word in a String.

```
package Week8;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.Scanner;
```

```
public class Search_String {


     public static void main(String args[]) throws IOException
     {
          String s="UEMK UEMJ IEM";
          if(s.contains("IEM"))
          System.out.print("Found");
          else
               System.out.print("Not-Found");
     }
}
Found
```

24. Write a Java Program to Replace All Occurings of a String.

```
package Week8;

import java.util.Scanner;

public class Replace_Oc_String {
     public static void main(String args[])
     {
          String s1="C Python CPP Python Javascript";
          String s2=s1.replaceAll("Python","Java");
          System.out.print(s2);
     }
}
C Java CPP Java Javascript
```

25. Write a Java Program to Make First Character of Each Word in Uppercase.

```
package Week8;

import java.util.Scanner;

public class Upper_String {

     public static void main(String args[])
     {
     String s="uemk uemj iem";
     String s1[]=s.split(" ");
     for(int i=0;i<s1.length;i++)
     {

     System.out.println(Character.toUpperCase(s1[i].charAt(0))+s
1[i].substring(1));
     }
```

```
	}
}
Uemk
Uemj
Iem
```

26. Write a Java Program to Delete All Repeated Words in String.

```
package Week8;

import java.util.Scanner;

public class Delete_String {

	public static void main(String args[])
	{
		String input="C JAVA JAVA JAVA PYTHON PYTHON CPP CPP";

		String[] words=input.split(" ");
		for(int i=0;i<words.length;i++)
		{
			if(words[i]!=null)
			{

			for(int j=i+1;j<words.length;j++)
			{

			if(words[i].equals(words[j]))
				{
					words[j]=null;
				}
			}
			}
		}
		for(int k=0;k<words.length;k++)
		{
			if(words[k]!=null)
			{
				System.out.println(words[k]);
			}

		}
	}
}
C
JAVA
PYTHON
CPP
```

27. Write a Java Program to Reverse the String Using Both Recursion and Iteration.

```
package Week8;


public class Reverese_String {

      static  void reverse(String str)
         {
             if ((str==null)||(str.length() <= 1))
                System.out.println(str);
             else
             {
                 System.out.print(str.charAt(str.length()-1));
                 reverse(str.substring(0,str.length()-1));
             }
         }


     public static void main(String args[])
     {


          StringBuffer s=new StringBuffer("JAVA");

          StringBuffer s1=new StringBuffer();

          int i=s.length()-1;
          while(i>=0)
          {
               s1.append(s.charAt(i));
               i--;
          }

          System.out.println("Iteration:"+s1);
          System.out.print("Recursion:");

          reverse("JAVA");
     }
}
Iteration:AVAJ
Recursion:AVAJ
```

28. Write a Java Program to Convert a String Totally into Upper Case.

```
package Week8;

public class All_Upper_String {

	public static void main(String args[])
	{
	String s="uemk uemj iem";
	System.out.println(s.toUpperCase());

	}
}
```

```
UEMK UEMJ IEM
```

29. Write a Java Program to Remove all Characters in Second String which are Present in First String.

```
package Week8;

import java.util.Scanner;

public class Delete_Next_String {

	public static void main(String args[])
	{


		StringBuffer s=new StringBuffer("JV");
		StringBuffer s1=new
StringBuffer("CJAVAJAVAJAVPYTHON");
		StringBuffer s2=new StringBuffer();
		for(int i=0;i<s.length();i++)
		{
			for(int j=0;j<s1.length();j++)
			{
				if(s.charAt(i)==s1.charAt(j))
				{
					s1.deleteCharAt(j);
				}
			}


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

```
CAAAAAPYTHON
```

30. Write a Java Program to Find the Consecutive Occurrence of any Vowel in a String.

```
package Week8;


public class Cons_Vowel_String {

     static Boolean isVowel(char c){

          if(c == 'a' || c == 'e' || c == 'i' || c=='o' ||
c=='u')
                    return true;
          return false;
     }
     public static void main(String args[])
     {

          String s1="aebbbbbiobbbbuobbb";

          char[] s = s1.toCharArray();

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

          if(isVowel(s[i]) && isVowel(s[i+1])){

          System.out.println("The Consecutive vowels are : "+
s[i] + " and " + s[i+1]);

          }

          }

     }
}
The Consecutive vowels are : a and e
The Consecutive vowels are : i and o
The Consecutive vowels are : u and o
```

31. Write a Java Program to Find the Largest & Smallest Word in a String.

```
package Week8;

public class Largest Smallest String {


     public static void main(String args[])
```

```
	{
		String s1="UEMK IEM TECHNO";

		String[] s=s1.split(" ");

		int max=s[0].length();
		int min=s[0].length();
		int l=0,sm=0;

		for(int i=1;i<s.length;i++)
		{
			if(s[i].length()>max)
			{
				max=s[i].length();
				l=i;
			}
			if(s[i].length()<min)
			{
				min=s[i].length();
				sm=i;
			}

		}
		System.out.print("Largest:"+s[l]+" Smallest:"+s[sm]);
	}
}
Largest:TECHNO Smallest:IEM
```

32. Write a Java Program to Find First and Last Occurrence of Given Character in a String.

```
package Week8;

public class First_Last_String {
	public static void main(String args[])
	{
		String s1="JAVA";
		char a='A';

		int f=0,l=0;
		for(int i=0;i<s1.length();i++)
		{
			if(a==s1.charAt(i))
			{
				if(f==0)
					f=i;
				l=i;
```

```
                }
            }
            System.out.print("First Occurrence : "+(f+1)+" Last
Occurrence : "+(l+1));
      }
}
First Occurrence : 2 Last Occurrence : 4
```

33. Write a Java Program to Display the Characters in Prime Position a Given String.

```
package Week8;

public class Prime_String {

      public static boolean isPrime(int n)
      {
            int a;
            for(int i=2;i<=n/2;i++)
            {
                  if(n%i==0)
                        return false;
            }
            return true;
      }

      public static void main(String args[])
      {
            String s1="JAVA_C_PYTHON_JAVASCRIPT";

            int f=0,l=0;
            for(int i=0;i<s1.length();i++)
            {
                  if(isPrime(i)==true)
                  {
                        System.out.println("Char :"+s1.charAt(i)+"
Posiotion:"+i);
                  }
            }
            }
}
Char :J Posiotion:0
Char :A Posiotion:1
Char :V Posiotion:2
Char :A Posiotion:3
Char :C Posiotion:5
Char :P Posiotion:7
```

```
Char :O Posiotion:11
Char :_ Posiotion:13
Char :A Posiotion:17
Char :C Posiotion:19
Char :T Posiotion:23
```

34. Write a Java Program to Sort String Ignoring Whitespaces and Repeating Characters Only Once.

35. Write a Java Program to Count Replace First Occurrence of a String.

```
package Week8;

public class Count_Oc_String {


	public static void main(String args[] )
	{
		String input="C JAVA JAVA JAVA PYTHON PYTHON CPP CPP";

		String[] words=input.split(" ");
		int count=0;
		for(int i=0;i<words.length;i++)
		{
			if(words[i]!=null)
			{

			for(int j=i+1;j<words.length;j++)
			{

			if(words[i].equals(words[j]))
				{
					count++;
					words[j]=null;
				}
			}
			}
		}
		for(int k=0;k<words.length;k++)
		{
			if(words[k]!=null)
			{
				System.out.println(words[k]);
			}

		}
		System.out.print("Count :"+count);
```

```
	}
}
C
JAVA
PYTHON
CPP
Count :4
```

36. Write a Java Program to Know the Last Index of a Particular Word in a String.

```
package Week8;

public class Last_Index_String {


	public static void main(String args[] )
	{

		String input="C CPP JAVA PYTHON RUBY";
		int index=0;
		String key="JAVA";
		index=input.lastIndexOf(key);
		System.out.print("Last Index :"+index);
	}
}
Last Index :6
```

37. Write a Java Program to Access the Index of the Character or String.

```
package Week8;

public class Access_Index_String {


	public static void main(String args[] )
	{

		String input="ABCDEFGH";
		int index=0;
		int i=0;
		while(i++<input.length()-1)
		{
			index=input.lastIndexOf(input.charAt(i));
			System.out.println(input.charAt(i)+": Index
:"+index);
		}


	}
```

```
}
B: Index :1
C: Index :2
D: Index :3
E: Index :4
F: Index :5
G: Index :6
H: Index :7
```

38. Write a Java Program to Access the Characters or the ASCII of the Character Available in the String

```
package Week8;

public class ASCI_Access_String {


     public static void main(String args[] )
     {

          String input="ABCDEFGH";
          int index=0;
          int i=0;
          while(i++<input.length()-1)
          {
               index=input.charAt(i);
               System.out.println(" ASCI :"+index);
          }


     }
}
ASCI :66
ASCI :67
ASCI :68
ASCI :69
ASCI :70
ASCI :71
ASCI :72
```

39. Write a Java Program to Display the Character and the Corresponding Ascii Present in the String.

```
package Week8;

public class ASCI_Access_String {


	public static void main(String args[] )
	{

		String input="ABCDEFGH";
		int index=0;
		int i=0;
		while(i++<input.length()-1)
		{
			index=input.charAt(i);
			System.out.println(input.charAt(i)+": ASCI
:"+index);
		}


	}
}
```

```
B: ASCI :66
C: ASCI :67
D: ASCI :68
E: ASCI :69
F: ASCI :70
G: ASCI :71
H: ASCI :72
```

40. Write a Java Program to Accept 2 String & Check Whether all Characters in First String is Present in Second String & Print.

```
package Week8;

import java.util.Scanner;

public class Check_Char_String {


	public static void main(String args[] )
	{
		Scanner sc=new Scanner(System.in);
		System.out.print("Enert 1st String :");
		String str=sc.next();
```

```
            System.out.print("Enert 2nd String :");
            String str1=sc.next();

            for(int i=0;i<str.length();i++)
            {

                  for(int j=0;j<str1.length();j++)
                  {
                        if(str.charAt(i)==str1.charAt(j))
                        {
                              System.out.println(str.charAt(i)+"
found at string 2");
                              break;
                        }
                  }
            }

      }
}
Enert 1st String :python
Enert 2nd String :onthpy
p found at string 2
y found at string 2
t found at string 2
h found at string 2
o found at string 2
n found at string 2
```

41. Write a Java Program to Check whether a Given Character is Present in a String, Find Frequency & Position of Occurrence.

```
package Week8;

import java.util.Scanner;

public class Find_Char_String {


      public static void main(String args[] )
      {
            Scanner sc=new Scanner(System.in);
            System.out.print("Enert 1st String :");
            String str=sc.next();
            System.out.print("Ener the char:");
            char a=sc.next().charAt(0);
            int f=0;
            for(int i=0;i<str.length();i++)
            {
                  if(str.charAt(i)==a)
```

```
                    {
                         System.out.println(a+" found in string
at "+i);
                         f++;
                    }
               }
          System.out.println("Freq: "+f);
          }

}
Enert 1st String :JAVA
Ener the char:A
A found in string at 1
A found in string at 3
Freq: 2
```

42. Write a Java Program to Count the Number of Occurrence of Each Character Ignoring the Case of Alphabets & Display them.

```
package Week8;

import java.util.Scanner;

public class Occ_Char_String {


     public static void main(String args[] )
     {

          String str="JAVAJAVA";
          char x[]=str.toCharArray();
          for(int i=0;i<x.length;i++)
          {
               if(x[i] !='0')
               {
                    int f=1;
               for(int j=i+1;j<x.length;j++)
               {
               if(x[i]==x[j])
                    {
                         System.out.println("--"+x[i]+" found in
string at "+j);
                         f++;
                         x[j]='0';
                    }

               }
```

```
                System.out.println("Occurrence of "+x[i]+" is
"+f);
                }
          }

          }

}
--J found in string at 4
Occurrence of J is 2
--A found in string at 3
--A found in string at 5
--A found in string at 7
Occurrence of A is 4
--V found in string at 6
Occurrence of V is 2
```

43. Write a Java Program to Give Shortest Sequence of Character Insertions and Deletions that Turn One String Into the Other.

```
package Week8;

class Min_Ins_Del_String {

     static int lcs(String str1, String str2,
                              int m, int n )
     {
          int L[][] = new int[m+1][n+1];
          int i, j;

     for (i = 0; i <= m; i++)
     {
          for (j = 0; j <= n; j++)
          {
               if (i == 0 || j == 0)
               L[i][j] = 0;

          else if (str1.charAt(i-1) == str2.charAt(j-1))
               L[i][j] = L[i-1][j-1] + 1;

          else
               L[i][j] = Math.max(L[i-1][j],
                                  L[i][j-1]);
          }
     }
```

```
        return L[m][n];
        }
        static void InsDel(String str1,
                                                String str2)
        {
             int m = str1.length();
             int n = str2.length();

             int len = lcs(str1, str2, m, n);

             System.out.println("Minimum number of "+
                                "deletions = ");
             System.out.println(m - len);

             System.out.println("Minimum number of "+
                                "insertions = ");
             System.out.println(n - len);
        }


        public static void main(String[] args)
        {
        String str1 = new String("JAVA");
        String str2 = new String("VAJ");
        InsDel(str1, str2);
        }
}
Minimum number of deletions =
2
Minimum number of insertions =
1
```

44. Write a Java Program to Check Whether Date is in Proper Format or Not.

```
package Week8;

public class Date_Valid_String {

     private static final java.text.SimpleDateFormat sdf =
               new java.text.SimpleDateFormat("yyyyMMdd");

          public static java.util.Date verifyInput(String input)
{
            if (input != null) {
              try {
                java.util.Date ret = sdf.parse(input.trim());
                if (sdf.format(ret).equals(input.trim())) {
                 System.out.print("Yes--");
```

```
                    return ret;
                  }
                } catch (Exception e) {
                 System.out.print("NO");
                }
              }
              return null;
            }

            public static void main(String[] args) {
              String[] dates = new String[] { "20141031",
                  "20130228", "20000229", "20000230" };
              for (String str : dates) {
                System.out.println(verifyInput(str));
              }
            }
}
Yes--Fri Oct 31 00:00:00 IST 2014
Yes--Thu Feb 28 00:00:00 IST 2013
Yes--Tue Feb 29 00:00:00 IST 2000
```

45. Write a Java Program to Validate an Email Address Format.

```
package Week8;

public class Date_Valid_String {

            public static void main(String[] args) {
                  String EMAIL_REGEX = "^[\\w-_\\.+]*[\\w-
_\\.]\\@([\\w]+\\.)+[\\w]+[\\w]$";
                  String email1 = "uem@uemk.com";
                  Boolean b = email1.matches(EMAIL_REGEX);
                  System.out.println("email: "+email1+" :Valid = "
+ b);
                  String email2 = "uem$%$%uem.co.in";
                  b = email2.matches(EMAIL_REGEX);
                  System.out.println("email: "+email2+" :Valid = "
+ b);
            }
}
email: uem@uemk.com :Valid = true
email: uem$%$%uem.co.in :Valid = false
```

46. Write a Java Program to Store String Literals Using String Buffer.

```
package Week8;

public class Email_String {
```

```
     public static void main(String[] args) {

          String str="JAVA";
          StringBuffer bfr=new StringBuffer(str);
          System.out.print(bfr);
     }
}
JAVA
```

47. Write a Java Program to Verify a Class is StringBuffer Class Method.

```
package Week8;

public class Verify_Buffer_String {

public static void main(String[] args) {

          String str="JAVA";
          StringBuffer bfr=new StringBuffer(str);
          bfr.delete(2,3);
          System.out.println("Deletion: "+bfr);
          bfr.insert(2, 'v');
          System.out.print("Insertion: "+bfr);

     }
}
Deletion: JAA
Insertion: JAvA
```

49. Write a Java Program to Count a Group of Words in a String.

```
package Week8;

public class Word_String {
     public static void main(String args[])
     {
          String s1="Python CPP Python Javascript";
          String arr[]=s1.split(" ");
          System.out.print("Group of words :"+arr.length);
     }
}

Group of words :4
```

50. Write a Java Program to Count Number of Words in a given Text or Sentence.

```
package Week8;

public class Word_String {
     public static void main(String args[])
```

```
     {
          String s1="Python CPP Python Javascript Python CPP
Python Javascript Python CPP Python Javascript";
          String arr[]=s1.split(" ");
          System.out.print("Words :"+arr.length);
     }
}
```

```
Words :12
```