Strings

1. **How do you convert String to Integer? How do you convert Integer to String ?**

▼ **Ans**

▼ String —> int

▼ Without Using Inbuilt Method

- This code is works both Negative and Positive also

```
static int convert(String str)
  {
    int num=0,i=0;
    boolean neg=false;
    if(str.charAt(0) == '-')
    {
      neg = true;
      i = 1;
    }
    for(i=i; i<str.length(); i++)
    {
    num = num * 10 + (str.charAt(i)-48);
    }
    if(neg)
    {
      num = -num;
    }
    return num;
  }
    public static void main(String... args)
    {
      String str = "10225";
      int x=convert(str);
      System.out.println(x+1);
    }
------------OUTPUT-------------
10226
```

▼ Using Inbuilt Method

We have 4ways to convert String into int

▼ Integer.parseInt()

- Integer.parseInt() —>parseInt() is static method—→present—>Interger class—> lang package.

▼ Example Program

```
public static void main(String... args)
    {
      String str = "5";
        String str2 = "10";

       int x = Integer.parseInt(str);
       int y = Integer.parseInt(str2);

       System.out.println(x+y);
    }
---------OUTPUT--------------------
15
```

▼ Integer.valueOf()

- Integer.valueOf() —>valueOf() is static method—→present—>Interger class—> Lang package.

▼ Example Program

```
public static void main(String... args)
    {
      String str = "5";
        String str2 = "10";

       int x = Integer.valueOf(str);
       int y = Integer.valueOf(str2);

       System.out.println(x+y);
    }
---------OUTPUT--------------------
15
```

▼ intValue()

▼ DecimalFormat

▼ int —> String

▼ Without Using Inbuilt Method

- This code is works both Negative and Positive

```
public static void main(String... args)
    {
      int x = 1000;
      String str=x+"";
      System.out.println(str);
    }
------------OUTPUT-------------
"1000"
```

▼ Using Inbuilt Method

We have 3ways to Convert int to String

▼ Integer.toString()

- Integer.toString() —> toString() is static method —> Integer class —> lang package.

▼ Example Program

```
public static void main(String... args)
    {
      int x = 5;

      String str=Integer.toString(x);

      System.out.println(str+1);
    }
-------------OUTPUT-----------
"51"
```

▼ String.valueOf()

- String.valueOf() —> valueOf() is static method —> String class —> lang package.

▼ Example Program

```
public static void main(String... args)
    {
      int x = 5;

      String str=String.valueOf(x);
```

```
      System.out.println(str+1);
    }
------------OUTPUT--------------
"51"
```

▼ String.format()

- String.format(,) —> format(,) is static method —> String class —> lang packege.

▼ Example

```
public static void main(String... args)
    {
      int x = 5;

      String str=String.format("%d", x);

      System.out.println(str+1);
    }
```

2. **WJPT to Convert given String into int (Without using any Inbuilt method) ?**

▼ **Ans**

```
import java.util.*;
public class Test
{
  public static void main(String[] args)
  {
    String str = "-5236";
    for (int i = 0; i < str.length(); i++)
    {
      if(str.charAt(i)>='A'&& str.charAt(i)<='z')
        throw new StringIsNotDigit();
    }
    int i=0,num=0;
    boolean neg=false;
    if(str.charAt(0)=='-')
    {
      i=1;
      neg=true;
    }
    for(i=i; i<str.length(); i++)
    {
      num=num*10+str.charAt(i)-48;
    }
    if(neg)
    {
      num=-num;
    }
    System.out.println(num);
    System.out.println(num+1);
  }
}
public class StringIsNotDigit extends RuntimeException
{

}
--------------OUTPUT---------------------------------
123
124
```

70. **WJPT Print how many VOWELS, CONSONENTS, UPPER CASE, LOWER CASE, SPECIAL CHARACTERS, DIGITS, presents in the String ?**

▼ **Ans**

```
public static void main(String[] args)
  {
    String str=sc.nextLine(); // "ABCDEFghijklmnopqrst"
```

```
    int cc=0,vc=0,uc=0,lc=0,dc=0,spc=0;
    for(int i=0;i<str.length();i++)
    {
      char ch=str.charAt(i);
      if(ch>='A'&&ch<='Z')
      {
        uc++;
        if(ch=='A'||ch=='E'||ch=='I'||ch=='O'||ch=='U')
        {
          vc++;
        }else
        {
          cc++;
        }
      }
      else if(ch>='a'&&ch<='z')
      {
        lc++;
        if(ch=='a'||ch=='e'||ch=='i'||ch=='o'||ch=='u')
        {
          vc++;
        }else
        {
          cc++;
        }
      }
      else if(ch>='0'&&ch<='9')
        dc++;
      else
        spc++;

    }
  }
```

78. **WJPT DAMT convert all the character in the to Lowercase ? convert all the character in the to Upercase ?**

    ▼ **Ans**

```
static String converttolower(String st)
  {
    char ch[]=st.toCharArray();  //Conversion of String to Array
    for(int i=0; i<ch.length; i++)
    {
      if(ch[i]>='A'&&ch[i]<='Z')
      {
        ch[i]=(char)(ch[i]+32);
      }
    }
    st=new String(ch); //Conversion of Array to String
    return st;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();

    String cp=converttolower(str);
    System.out.println(cp);
  }
-------------------Method (2) using Inbuilt Method-----------------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String str=sc.nextLine();sc.close();

    System.out.println(str.toLowerCase()); //Inbuilt Method
  }
```

80. DMAT convert Every Word First Character into Capital and Remaining All to Small ? convert Every Word First Character into Small and Remaining All to Capital ?

    ▼ Ans

▼ First Character into Capital and Remaining All to Small

```
--------------------Method-1-------------------------
static String initcaps(String st)
  {
    char ch[]=st.toCharArray(); //Conversion of String to Array
    for(int i=0; i<ch.length;i++)
    {
      if(i==0&&ch[i]!=' '||ch[i]!=' '&&ch[i-1]==' ')
      {
        if(ch[i]>='a'&&ch[i]<='z')
          ch[i]=(char)(ch[i]-32);
      }
      else
      {
        if(ch[i]>='A'&&ch[i]<='Z')
          ch[i]=(char)(ch[i]+32);
      }
    }
    st=new String(ch); //Conversion of Array to String
    return st;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();

    str=initcaps(str);
    System.out.println(str);
  }
--------------------Method-2-------------------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();
    String st[]=str.split(" ");
    String rev="";
    for (int i = 0; i < st.length; i++)
    {
      rev+=st[i].substring(0,1).toUpperCase()+st[i].substring(1).toLowerCase();
      if(i<st.length-1)
        rev+=" ";
    }
    System.out.print(rev);
  }
```

▼ First Character into Small and Remaining All to Capital

```
--------------------Method-2-------------------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();
    String st[]=str.split(" ");
    String rev="";
    for (int i = 0; i < st.length; i++)
    {
      rev+=st[i].substring(0,1).toLowerCase()+st[i].substring(1).toUpperCase();
      if(i<st.length-1)
        rev+=" ";
    }
    System.out.print(rev);
  }
```

81. WJPT convert Every Word Last Character into Capital and Remaining All to Small ? Convert Every Word Last Character to Small and Remaining All to Capital

▼ Ans

▼ Last Character into Capital and Remaining All to Small

```
--------------------Method-1-------------------------
static String initcaps(String st)
  {
    char ch[]=st.toCharArray(); //Conversion of String to Array
    for(int i=0; i<ch.length;i++)
    {
      if(i==ch.length-1&&ch[i]!=' '||ch[i]!=' '&&ch[i+1]==' ')
      {
        if(ch[i]>='a'&&ch[i]<='z')
          ch[i]=(char)(ch[i]-32);
      }
      else
      {
        if(ch[i]>='A'&&ch[i]<='Z')
          ch[i]=(char)(ch[i]+32);
      }
    }
    st=new String(ch); //Conversion of Array to String
    return st;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();

    str=initcaps(str);
    System.out.println(str);
  }
--------------------Method-2-------------------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();
    String st[]=str.split(" ");
    String rev="";
    for (int i = 0; i < st.length; i++)
    {
      rev+=st[i].substring(0,st[i].length()-1).toLowerCase()+
                st[i].substring(st[i].length()-1).toUpperCase();
      if(i<st.length-1)
        rev+=" ";
    }
    System.out.print(rev);
  }
```

▼ Last Character into Small and Remaining All to Capital

```
--------------------Method-1-------------------------
public static void main(String[] args)
{
  Scanner sc = new Scanner ( System . in ) ;
  String str = sc.nextLine() ;
  char ch[]=str.toCharArray();
  for(int i=0; i<ch.length; i++)
  {
      if(i==ch.length-1 && ch[i]!=' ' || ch[i]!=' ' && ch[i+1]==' ')
    {
      if(ch[i]>='A'&&ch[i]<='Z')
        ch[i]=(char)(ch[i]+32);
    }else
    {
      if(ch[i]>='a'&&ch[i]<='z')
        ch[i]=(char)(ch[i]-32);
    }
  }
  str=new String(ch);
  System.out.println(str);
}
--------------------Method-2-------------------------
public static void main(String[] args)
  {
```

```
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();
    String st[]=str.split(" ");
    String rev="";
    for (int i = 0; i < st.length; i++)
    {
      rev+=st[i].substring(0,st[i].length()-1).toUpperCase()+
                st[i].substring(st[i].length()-1).toLowerCase();
      if(i<st.length-1)
        rev+=" ";
    }
    System.out.print(rev);
  }
```

83. WJPT to Convert all Vowels in the String to Uppercase and Consonants to Lowercase ? Input= ”AEIOU aeiou vwxy VWXY” Output= “AEIOU AEIOU vwxy vwxy”

▼ Ans

```
/////method-->1
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String st=sc.nextLine();
  char ch[]=st.toCharArray();
  for(int i=0;i<ch.length;i++)
  {
    if(ch[i]>='a'&&ch[i]<='z')
    {
      if(ch[i]=='a'||ch[i]=='e'||ch[i]=='i'||ch[i]=='o'||ch[i]=='u')
        ch[i]=(char)(ch[i]-32);
    }
    else if(ch[i]>='A'&&ch[i]<='Z')
    {
      if(ch[i]!='A'&&ch[i]!='E'&&ch[i]!='I'&&ch[i]!='O'&&ch[i]!='U')
        ch[i]=(char)(ch[i]+32);
    }
  }
  st=new String(ch);
  System.out.println(st);
}
//////Method-->2
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String st=sc.nextLine();
  st=st.toLowerCase();
  char ch[]=st.toCharArray();
  for(int i=0;i<ch.length;i++)
  {
      if(ch[i]=='a'||ch[i]=='e'||ch[i]=='i'||ch[i]=='o'||ch[i]=='u')
        ch[i]=(char)(ch[i]-32);
  }
  st=new String(ch);
  System.out.println(st);
}
```

77. **WJPT Sum of Digit present in the String ? Input= ”Apple = 20 and Banana = 30 ” Output= 5**

▼ **Ans**

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();
    int sum=0;
    for(int i=0;i<str.length();i++)
    {
      char ch=str.charAt(i);
```

```
      if(ch>='0'&&ch<='9')
      {
        sum=sum+ch-48;
      }
    }
    System.out.println(sum);
  }
```

71. **WJPT Sum of Digit present in the String ? Input= ”Apple = 20 and Banana = 30 ” Output= 50**

▼ **Ans**

```
public static void main(String[] args)
  {
    String str="Apple = 20 and Banana =  -300";
    int sum=0;
    char ch[]=str.toCharArray();
    for(int i=0; i<ch.length; i++)
    {
      String temp = "";
      boolean neg = false;
      while(i<ch.length&&ch[i]>='0'&&ch[i]<='9')
      {
        if(i==0&&ch[i]=='-'||i!=0&&ch[i-1]=='-')
          neg=true;
        temp = temp + ch[i];
        i++;
      }
      int x=0;
      for(int j=0; j<temp.length(); j++)
      {
        char cha=temp.charAt(j);
        x = x * 10 + (cha - 48);
      }
      if(neg)
        x=-x;
      sum=sum+x;
    }
    System.out.println(sum);
  }
```

71. Frequency of each character in the given String ?

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String str=sc.nextLine();
    int count[]=new int[128];

    for(int i=0; i<str.length(); i++)
    {
      count[str.charAt(i)]++;
    }
    for(int i=0; i<count.length; i++)
    {
      if(count[i]!=0)
      System.out.println((char)(i)+" --> "+count[i]);
    }
  }
```

72. Frequency of each Alphabets irrespective of case ?

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();
```

```
    int count[]=new int[26];
    for(int i=0; i<str.length(); i++)
    {
      char ch=str.charAt(i);
      if(ch>='A'&&ch<='Z')
        count[ch-65]++;
      else if(ch>='a'&&ch<='z')
        count[ch-97]++;
    }
    for(int i=0; i<count.length; i++)
    {
      if(count[i]!=0)
        System.out.println((char)(i+65)+" --> "+count[i]);
    }
  }
```

73. Frequency of each character in the given String in Descending order and Ascending order?

▼ Ans

```
--------------Descending order-------------
import java.util.*;
import java.util.Map.Entry;
public class Test
{
  public static void main(String[] args)
  {
    TreeMap<Character, Integer> tr=new TreeMap<Character, Integer>();
    String str="abcab";
    char ch[]=str.toCharArray();
    for (int i = 0; i < ch.length; i++)
    {
      if(tr.containsKey(ch[i]))
      {
        tr.put(ch[i],tr.get(ch[i])+1);
      }
      else
      {
        tr.put(ch[i],1);
      }
    }
    Comparator com=new Comparator()
    {
      @Override
      public int compare(Object o1,Object o2)
      {
        int t1=(Integer) o1;
        int t2=(Integer) o2;
        if(t1>t2)
          return -1;      //for Ascending order change retrun to +1
        else if(t1<t2)
          return 1;       //for Ascending order change retrun to -1
        return 1;
      }
    };
    TreeMap<Integer, Character> tr1=new TreeMap<Integer, Character>(com);
    for(Map.Entry<Character,Integer> e:tr.entrySet())
    {
      tr1.put(e.getValue(),e.getKey());
    }
    for(Map.Entry<Integer, Character> e:tr1.entrySet())
    {
      System.out.println(e.getValue()+" --> "+e.getKey());
    }
  }
}
```

73. Frequency of an each Word in a Sentence ?

▼ Ans

```
import java.util.*;
public class Frequency_Of_String_Words
```

```
{
  static void countfreq(String str)
  {
    Map<String,Integer> mp=new TreeMap<>();
    String arr[]=str.split(" ");
    for(int i=0;i<arr.length;i++)
    {
      if(mp.containsKey(arr[i]))
      {
        mp.put(arr[i], mp.get(arr[i])+1);
      }
      else
      {
        mp.put(arr[i],1);
      }
    }
    for(Map.Entry<String,Integer> entry:
          mp.entrySet())
    {
      System.out.println(entry.getKey()+" - "+entry.getValue());
    }
  }
  public static void main(String[] args)
   {
    String str = "skol is also skol and skol";
    countfreq(str);
  }
}
```

85. WJPT print How Many Character Present in Each Word?

▼ Ans

```
Method -1
public static void main(String[] args)
  {
    String str="You must be ragnar Lothbrok";
    String st[]=str.split(" ");
    for (int i = 0; i < st.length; i++)
    {
      System.out.println(st[i]+" = "+st[i].length());
    }
  }
--------------------------------------------------------------------------------
Method -2
public static void main(String[] args)
   {
        String st="my manu is manu";
        String ch[]=st.split(" ");
        int count=0;
        for(int i=0; i<ch.length; i++)
        {
            for(int j=0; j<ch[i].length(); j++)
            {
                count++;
            }
            System.out.println(ch[i]+"  =  "+count);
            count=0;
        }
    }
--------------------------------------------------------------------------------
Method-3
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the Sentence:= ");
    String st=sc.nextLine();
    char ch[]=st.toCharArray();
    int a=0,b=0,c=0;
    String sn="";
    for(int i=0;i<ch.length;i++)
    {
      if(i==0&&ch[i]!=' '||ch[i]!=' '&&ch[i-1]==' ')
      {
        a=i;
      }
```

```
      else if(i==ch.length-1&&ch[i]!=' '||ch[i]!=' '&&ch[i+1]==' ')
      {
        b=i;
        for(int j=a; j<=b; j++)
        {
          sn=sn+ch[j];
          c++;
        }
        System.out.println(sn+" --> "+c);
        sn="";
        c=0;
      }
    }
```

79. WJPT print How many Words present in the sentence ?

▼ Ans

```
static int countwords(String st)
  {
    char ch[]=st.toCharArray(); //Conversion of String to Array
    int wc=0;
    for(int i=0; i<ch.length; i++)
    {
      if(i==0&&ch[i]!=' '||ch[i]!=' '&&ch[i-1]==' ')
        wc++;
    }
    return wc;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the sentence := ");
    String str=sc.nextLine();

    int cw=countwords(str);
    System.out.println("Number Words Present in a sentence := "+cw);
  }
------------------------------------------------------------
public static void main(String[] args)
  {
    String str="my manu is manu";
    String st[]=st.split(" ");
    System.out.println(ch.length);
  }
```

73. WJPT to check user Entered String is PANGRAM or not ?

▼ Ans

```
PANGRAM = a sentence containing every letter of the alphabet.
//////METHOD 1
static boolean ispanagram(String str)
  {
    if(str.length()<26)
    {
      return false;
    }
    int count[]=new int[26];
    for(int i=0; i<str.length(); i++)
    {
      char ch=str.charAt(i);
      if(ch>='A'&&ch<='Z')
        count[ch-65]++;
      else if(ch>='a'&&ch<='z')
        count[ch-97]++;
    }
    for(int i=0; i<26; i++)
    {
      if(count[i]==0)
        return false;
    }
    return true;
```

```
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();

    boolean rs=ispanagram(str);
    if(rs)
      System.out.println("String is Panagram");
    else
      System.out.println("String is not a Panagram");
  }
//////METHOD 2
static boolean ispanagram(String str)
  {
    if(str.length()<26)
    {
      return false;
    }
    str=str.toLowerCase();

    for(int ch='a'; ch<='z'; ch++)
    {
      if(str.indexOf(ch)==-1)
        return false;
    }
    return true;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();

    boolean rs=ispanagram(str);
    if(rs)
      System.out.println("String is Panagram");
    else
      System.out.println("String is not a Panagram");
  }
```

74. WJPT read two String are ANAGRAM or not ?

▼ Ans

```
a word, phrase, or name formed by rearranging the letters of
another, such as spar, formed from rasp.
-----------------------------------------------------
static boolean isanagram(String s1,String s2)
  {
    int ct1[]=countalpha(s1);
    int ct2[]=countalpha(s2);
    for(int i=0; i<26; i++)
    {
      if(ct1[i]!=ct2[i])
        return false;
    }
    return true;
  }
  static int[] countalpha(String str)
  {
    int count[]=new int[26];
    for(int i=0; i<str.length();i++)
    {
      char ch=str.charAt(i);
      if(ch>='A'&&ch<='Z')
        count[ch-65]++;
      else if(ch>='a'&&ch<='z')
        count[ch-97]++;
    }
    return count;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
```

```
    System.out.println("Enter the two String:= ");
    String str1=sc.nextLine();
    String str2=sc.nextLine();

    boolean rs=isanagram(str1,str2);
    if(rs)
      System.out.println("String is Anagram");
    else
      System.out.println("String is not a Anagram");
  }
```

75. WJPT to Reverse the String ?

▼ Ans

```
------------Method-1---------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();sc.close();
    String res="";
    for(int i=str.length()-1; i>=0; i--)
    {
      res=res+str.charAt(i);
    }
    System.out.println(res);
  }
------------Method-2---------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String st=sc.nextLine();sc.close();

    StringBuilder s=new StringBuilder(st);
    s.reverse();
    System.out.println(s);
  }
```

88. WJPT check the given String is PALINDROME or NOT ? I/P=”madam” O/P= madam is Palindrome I/P=”madamd” O/P= madamd is not Palindrome

▼ Ans

```
static boolean ispalindrom(String st)
{
  int i=0;
  while(i<st.length()/2)
  {
    if(st.charAt(i)!=st.charAt(st.length()-1-i))
      return false;
    i++;
  }
  return true;
}
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String s=sc.nextLine();

  boolean str=ispalindrom(s);
  if(str)
    System.out.println(s+" is Palindrome");
  else
    System.out.println(s+" is not a Palindrome");
}
```

82. WJPT Swap Every Word First Character with a Same Word Last Character ? Input= ”Ragnar Lothbrok” Output= “ragnaR kothbroL”

▼ Ans

```
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String st=sc.nextLine();
  char ch[]=st.toCharArray();
  int f=0;
  for(int i=0;i<ch.length;i++)
  {
    if(i==0&&ch[i]!=' '||ch[i]!=' '&&ch[i-1]==' ')
    {
      f=i;
    }
   else if(i==ch.length-1&&ch[i]!=' '||ch[i]!=' '&&ch[i+1]==' ')
    {
      char t=ch[i];
      ch[i]=ch[f];
      ch[f]=t;
    }
  }
  st=new String(ch);
  System.out.println(st);
}
```

86. WJPT Reverse the words in the sentence ? I/P=”my name is manu” O/P=”ym eman si unam”

▼ Ans

```
//<IT IS MOST EFFICIENT CODE WITHOUT REVERSING A STRING BY CHECKING THE STRING>
static String reversethewords(String st)
{
  char ch[]=st.toCharArray();
  String rev="";
  for(int i=0;i<ch.length;i++)
  {
    int a=i;
    while(i<ch.length && ch[i]!=' ') //say my name
    {
      i++;
    }
    int b=i-1;
    while(b>=a)
    {
      rev=rev+ch[b];
      b--;
    }
    if(i<ch.length)
      rev=rev+ch[i];
  }
  return rev;
}
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the sentence:= ");
  String str=sc.nextLine();
  String st=reversethewords(str);
  System.out.println(st);
}
-------------------------Method-2----------------------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String st=sc.nextLine();
    String ch[]=st.split(" ");
    for(int i=0; i<ch.length; i++)
    {
      for(int j=ch[i].length()-1; j>=0; j--)
      {
        System.out.print(ch[i].charAt(j));
      }
      if(i<ch.length-1)
      System.out.print(" ");
```

```
    }
  }
-------------------------Method-3----------------------------
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String st=sc.nextLine();sc.close();
    String ch[]=st.split(" ");
    for(int i=0; i<ch.length; i++)
    {
      StringBuilder sb=new StringBuilder();
      sb.append(ch[i]).reverse();
      System.out.print(sb);
      if(i<ch.length-1)
        System.out.print(" ");
    }
```

87. WJPT Reverse a word in String and also throw an Exception. If it empty or is digit
Input= "My name is sandeep" and Output= "yM eman si peednaS"
Input= "" and Output= Exception in thread "main" java.lang.Exception: string is empty
Input= "hello 8world" and Output= Exception in thread "main" java.lang.Exception: string is digit

▼ Ans

```
import java.util.*;
public class reverseStr
{
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String s=sc.nextLine();sc.close();
    if(s.equals(""))
    {
      throw new StringNotPresent();
    }
    char c[]=s.toCharArray();
    for (int i = 0; i < c.length; i++)
    {
      if(c[i]>='0'&&c[i]<='9')
        throw new StringIsDigit();
    }
    String ch[]=s.split(" ");
    for(int i=0; i<ch.length; i++)
    {
      StringBuilder sb=new StringBuilder();
      sb.append(ch[i]).reverse();
      System.out.print(sb);
      if(i<ch.length-1)
        System.out.print(" ");

    }
  }
}
public class StringIsDigit extends RuntimeException
{

}
public class StringNotPresent extends RuntimeException
{

}
```

87. WJPT Reverse the sentence ? I/P=”my name is manu” O/P=”manu is name my”

▼ Ans

```
////MOST EFFICIENT CODE BY USING SPLIT METHOD///METHOD-->1
static String reversethesentence(String st)
{
  String rev="";
  String s[]=st.split(" ");
  for(int i=s.length-1; i>=0; i--)
```

```
  {
    rev=rev+s[i];
    if(i>0)
      rev=rev+" ";
  }
  return rev;
}
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String st=sc.nextLine();
  st=reversethesentence(st);
  System.out.println(st);
}
//////METHOD-->2//////
static String reversethesentence(String st)
{
  char ch[]=st.toCharArray();
  String rev="";
  for(int i=ch.length-1; i>=0; i--)
  {
    int a=i;
    while(i>=0 && ch[i]!=' ')
    {
      i--;
    }
    int b=i+1;
    while(a>=b)
    {
      rev=rev+ch[b];
      b++;
    }
    if(i>0)
      rev=rev+ch[i];
  }
  return rev;
}
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String st=sc.nextLine();
  st=reversethesentence(st);
  System.out.println(st);
}
```

89. WJPT to Count number of character in a String ?

▼ Ans

```
/////only letters//////
static int countchar(String st)
  {
    int count=0;
    char ch[]=st.toCharArray();
    for(int i=0; i<ch.length; i++)
    {
      if(ch[i]>=65&&ch[i]<=90 || ch[i]>=97&&ch[i]<=122 ||ch[i]>=48&&ch[i]<=57
          && ch[i]!=32 && ch[i]!=','&&ch[i]!='.')
        count++;
    }
    return count;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the Sentence:= ");
    String st=sc.nextLine();
    int cp=countchar(st);
    System.out.println("Total Number of Character:= "+cp);
  }

//////ALL CHARECTER IN A STRING////
public static void main(String[] args)
  {
```

```
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Sentence:= ");
  String st=sc.nextLine();
  System.out.println("Total Number of Character:= "+st.length());
 }
```

90. WJPT Search the Word ?

▼ Ans

▼ Check

```
public static void main(String[] args)
  {
    Scanner sc= new Scanner(System.in);
    System.out.println("Enter the sentence ");
    String st=sc.nextLine();
    System.out.println("Enter the word to search: ");
    String w=sc.next();sc.close();
    //If you want Irrespective of Case, then convert to lower case
        //st=st.toLowerCase();
        //w=w.toLowerCase();
    boolean rs= checkWord(st,w);
    if(rs)
      System.out.println("Yes word is there ");
    else
      System.out.println("No word is not there ");
  }
  private static boolean checkWord(String st, String w)
  {
    char c1[]=st.toCharArray();
    char c2[]=w.toCharArray();
    for(int i=0;i<c1.length;i++)
    {
      int a=0;
      int b=i;
      while(b<c1.length && a<c2.length && c1[b]==c2[a])
      {
        b++;
        a++;
      }
      if(a==c2.length && (i==0||c1[i-1]==' ') && (b==c1.length||c1[b]==' '))
        return true;
    }
    return false;
  }
------------Method-2--------------------------------------
private static boolean checkWord(String st, String w)
  {
    char c1[]=st.toCharArray();
    char c2[]=w.toCharArray();
    for(int i=0;i<c1.length;i++)
    {
      int a=0;
      int b=i;
      while(b<c1.length && a<c2.length && c1[b]==c2[a])
      {
        a++;
        b++;
      }
      if(a==c2.length)
        return true;
    }
    return false;
  }
```

▼ Index

```
public static void main(String[] args)
  {
    Scanner sc= new Scanner(System.in);
    System.out.println("Enter the sentence ");
    String st=sc.nextLine();
```

```
    System.out.println("Enter the word to search: ");
    String w=sc.next();sc.close();
    //If you want Irrespective of Case, then convert to lower case
        //st=st.toLowerCase();
        //w=w.toLowerCase();
    int rs= checkWord(st,w);
    if(rs)
      System.out.println("Word is not present");
    else
      System.out.println(rs);
  }
  private static int checkWord(String st, String w)
  {
    char c1[]=st.toCharArray();
    char c2[]=w.toCharArray();
    for(int i=0;i<c1.length;i++)
    {
      int a=0;
      int b=i;
      while(b<c1.length && a<c2.length && c1[b]==c2[a])
      {
        b++;
        a++;
      }
      if(a==c2.length && (i==0||c1[i-1]==' ') && (b==c1.length||c1[b]==' '))
        return i;
    }
    return -1;
  }
```

94. WJAP to take input as a String and Decrement ASCCI value If its index is Even and Increment if its index is Odd ?
I/p=”MANU” and O/p=”NZOT”

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Please Enter Capital String:= ");
    String str=sc.nextLine();sc.close();
    String rev="";
    for (int i = 0; i < str.length(); i++)
    {
      char ch=str.charAt(i);
      if(ch>='A' && ch<='Z')
      {
        if(i%2==0)
        {
          if(ch=='Z')
            rev+='A';
          else
            rev+=(++ch);
        }
        else
        {
          if(ch=='A')
            rev+='Z';
          else
            rev+=(--ch);
        }
      }
      else if(ch>='a' && ch<='z')
      {
        if(i%2==0)
        {
          if(ch=='Z')
            rev+='A';
          else
            rev+=(++ch);
        }
        else
        {
          if(ch=='a')
            rev+='z';
          else
            rev+=(--ch);
```

```
        }
      }
    }
    System.out.println(str);
    System.out.println(rev);
  }
```

92. Replace all ‘a’ in an sentence with ‘@’ sign ?

▼ Ans

```
public static void main(String[] args)
  {
    String st="aeiou";

    st=st.replaceAll("a","@");
    System.out.println(st);
  }
```

93. Replace all Vowels in an sentence with ‘$’ sign ?

▼ Ans

```
public static void main(String[] args)
  {
    String st="aeiou";
    char ch[]=st.toCharArray();
    for(int i=0; i<ch.length; i++)
    {
      if(ch[i]=='A'||ch[i]=='a'||ch[i]=='E'||ch[i]=='e'||ch[i]=='I'||ch[i]=='i'||ch[i]=='O'||ch[i]=='o'||ch[i]=='U'||ch[i]=='u')
      {
        ch[i]='$';
      }
    }
    String str=new String(ch);
    System.out.println(str);
  }
```

91. I/P=”my name is manu” O/P=”My name is manU” ?

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String st=sc.nextLine();sc.close();

    StringBuilder s=new StringBuilder(st);
    System.out.println(s.toString().substring(0,1).toUpperCase()+
        s.toString().substring(1,s.toString().length()-1).toLowerCase()
        +s.toString().substring(s.toString().length()-1).toUpperCase());
  }
```

95. I/P=”my name is manu” O/P=”MY Name Is MANU” ?

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String str=sc.nextLine();sc.close();

    String st[]=str.split(" ");
    String rev="";
    for (int i = 0; i < st.length; i++)
    {
      if(i==0||i==st.length-1)
      {
```

```
        rev+=st[i].toUpperCase();
        if(i==0)
          rev+=" ";
      }
      else
      {
        rev+=st[i].substring(0,1).toUpperCase()+st[i].substring(1).toLowerCase()+" ";
      }
    }
    System.out.println(rev);
  }
```

04. Input1 =”INDIA” Input2 =”COUNTRY” Input3 =3 Then Output =”INDCOUNTRYIA”

▼ Ans

```
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  String ch=sc.nextLine();
  String st=sc.nextLine();
  int n=sc.nextInt();
  String str="";
  for(int i=0; i<n; i++)
  {
    str=str+ch.charAt(i);
  }
  str=str+st;
  for(int i=n; i<ch.length(); i++)
  {
    str=str+ch.charAt(i);
  }
  System.out.println(str);
}
```

11. Input =153 then Output =”100+50+3” or Input =1235 then Output =”1000+200+30+5” ?

▼ Ans

```
public static void main(String[] args)
  {
    int x=153;
    int temp=x;
    String rev="";
    int prod=1;
    do
    {
      int d=x%10;
      if(temp==x)
        rev+=prod*d;
      else
        rev=prod*d+"+"+rev;
      prod=prod*10;
      x=x/10;
    }while (x!=0);
    System.out.println(rev);
  }
```

12. WJPT Print Duplicate String data. Find the Each Repeated Character Percentage. I/P=football O/P=’o’→25% ‘l’→25%
formula for Find the each repeated character percentage: {(no of repeated/total length of string)*100}

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String str=sc.nextLine();
    sc.close();

    int count[]=new int[128];
```

```
    for (int i = 0; i < str.length(); i++)
    {
      count[str.charAt(i)]++;
    }
    for (int i = 0; i < count.length; i++)
    {
      if(count[i]>1)
        System.out.println((char)i+" -> "+(count[i]*100)/str.length()+"%");
    }
```

13. WJPT Swap the sentence without using 3rd variable? Input1= "Manu" Input2= "Skol" Output1= "Skol" Output2= "Manu" ?

▼ Ans

```
public static void main(String[] args)
  {
    String a="rama";
    String b="sitha";
    a=a+b;//ramasitha
    b=a.substring(0,a.length()-b.length());
    a=a.substring(b.length(),a.length());
    System.out.print(a);
    System.out.print(b);
  }
```

14. Input= "2a3b4c"_O/P="aabbbcccc"_, Input="2a3b4c5R"_O/P="aabbbccccRRRRR" ?

▼ **Ans**

```
------------------------Manu's Code -------------------------------------
public static void main(String[] args)
  {
    String str="2a3b4c";
    char ch[]=str.toCharArray();
    for (int i = 0; i < ch.length; i++)
    {
      if(ch[i]>='0' && ch[i]<='9')
      {
        int n=ch[i]-48;
        for (int j = 0; j <n; j++)
        {
          System.out.print(ch[i+1]+"");
        }
      }
    }
  }
------------------------Diamond's and Legends Code-----------------------
public static void main(String[] args)
  {
    String st="2a3b4c";

    char ch[]=st.toCharArray();
    for (int i = 0; i < ch.length; i++)
    {
      if(ch[i]>='0'&&ch[i]<='9')
      {
        int n=ch[i]-48;
        if((ch[i]>='a'&&ch[i]<='z')==false)
           {
              for(int k=0; k<n; k++)
              {
                System.out.print(ch[i+1]+"");
              }
           }
      }
    }
```

01. Input: "aaaabccccd" Output: "4a1b4c1d" Input: "aaabba" Output: "3a2b1a" ?

▼ **Ans**

01. Input1 =”16A3H6N” Input2 =”4” Then Output =”AAAAHHHHN” and Input1 =”16A3H7N” Input2 =”4” Then Output =”AAAAHHHHN” and Input1 =”16A3H7N” Input2 =”2” Then Output =”AAHNNN” and Input1 =”16A3H2N” Input2 =”2” Then Output =”AAHNN”

▼ Ans

- **If input1(first word) is completely divisible by input2, then print next letter input2 times.**
- **If input1(first word) is not completely divisible by input2, then print next letter questent times.**

```
public static void main(String[] args)
  {
    String s = "16A3H2N";
    System.out.println("Input1 is : " + s);
    int n = 2;
    System.out.println("Input2 is : " + n);
    String[] ar = s.split("[0-9]");
    String dup = "";
    for (int i = 0; i < ar.length; i++)
    {
      dup += ar[i];
    }
    dup = dup.trim();
    char[] arr = dup.toCharArray();
    String arr1[] = s.split("[!a-z!A-Z]");
    int a = 0;
    String s1 = "";
    for (int i = 0; i < arr1.length; i++)
    {
      if (Integer.parseInt(arr1[i]) % n == 0)
      {
        a = 0;
      } else
      {
        a = Integer.parseInt(arr1[i]) / n;
      }

      if (a == 0)
      {
        for (int j = 0; j < n; j++)
        {
          s1 += arr[i];
        }
      } else
      {
        for (int k = 0; k < a; k++)
        {
          s1 += arr[i];
        }
      }
      a = 0;
    }
    System.out.println("Output is : " + s1);
    System.out.println("Program Ended");
  }
```

01. WJPT to Remove User Entered Character from User Entered String ?

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc = new Scanner(System.in);
    String str=sc.nextLine(); //mahesh
    char ch=sc.next().charAt(0);sc.close(); //h

    String rev="";
    for(int i = 0; i < str.length(); i++)
    {
      char ch1=str.charAt(i);
      if(ch1!=ch)
        rev=rev+ch1;
    }
```

```
    System.out.println(rev);//maesh
  }
```

56. Write a program that will take String data as console input. The data will contain three number separated by a comma(,). The program is required to calculate the difference between the sum of the square of the two largest numbers and the sum of the squares of the two smallest numbers among the three numbers.
Sample Input:= 11,5,7 Sample Output:= 96 Explanation:
The sum of the squares of the two largest number is: (11*11)+(7*7) = 121+49 =170 The sum of the squares of the two smallest number is: (7*7)+(5*5) = 49 +25 =74 Therefore, the output of the program will be: 170-74 = 96

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String s=sc.nextLine();sc.close();
    String ch[]=s.split(",");
    int ch2[]=new int [ch.length];
    for(int i=0; i<ch.length; i++)
    {
      ch2[i]=Integer.parseInt(ch[i]);
    }
    Arrays.sort(ch2);
    a=(int) Math.pow(ch2[ch2.length-1],2)+(int)Math.pow(ch2[ch2.length-2],2);
    b=(int) Math.pow(ch2[0],2)+(int)Math.pow(ch2[1],2);
    System.out.println(a-b);
  }
```

2. Write a program that will take a word take as console input. The program is required to chop 1 character from the input word, alternatively from the left and right ends of the word, and display the chopped word at every step. The chopping should start from the right end of the word(the last character). First, the original form of the word is to be shown and then the chopped words. The chopping should continue until only one character of the word remains. Input format: Only a single line of input, containing a string. Output format: Print all the possible strings.
Constraints: 1≤ string.size() < =1e5 Simple Input:= COMBINATION

```
Simple Input 2:= abacus
Simple Output 2 :=
abacu
bacu
bac
ac
a
```

```
Simple Input 1:= COMBINATION
Simple Output 1 :=
COMBINATIO
OMBINATIO
OMBINATI
MBINATI
MBINAT
BINAT
BINA
INA
IN
N
```

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String str=sc.nextLine();sc.close();
    String temp=str,a="",b="";
    for(int i=0;i<temp.length()-1;i++)
     {
          if(i%2==0)
           {
            a=str.substring(0,str.length()-1);
            System.out.println(a);
          }
         else{
              b=a.substring(1);
              System.out.println(b);
              str=b;
            }
```

```
    }
  }
```

3. Input:= “cAts are*doing-notHing awesome” Output:= “catsAreDoingNothingAwesome”

   ▼ Ans

```
public static void main(String[] args)
  {
    String str="cAts are*doing-notHing awesome";
    String st[]=str.split("[^a-zA-Z0-9]");
    String rev="";

    for (int i = 0; i < st.length; i++)
    {
      if(i==0)
        rev+=st[i].toLowerCase();
      else
        rev+=st[i].substring(0,1).toUpperCase()+st[i].substring(1).toLowerCase();
    }
    System.out.println(rev);
  }
```

4. Input="abnjuytsg" Output= "uth1b14yuj" , Input="cdemnouvw" Output= "vwx3d5onm" *)if input conatins upper case character, it is invalid. *)if input conatins digits, it is invalid

   ▼ Ans

```
--------------------Diamond's and Legend's------------------------------
public static void main(String[] args)
  {
    String st="abnjuytsg";
    boolean tr=verify(st);
    if(tr)
    {
      String st1="";
      String str1=st.substring(0,3);
      String str2=st.substring(3,6);
      String str3=st.substring(6,9);
      String c1[]=str2.split("");
      char ch1[]=str3.toCharArray();
      for (int i = 0; i < ch1.length; i++)
      {
        st1=st1+(char)(ch1[i]+1);
      }
      char ch[]=str1.toCharArray();
      for (int i = 0; i<ch.length; i++)
      {
        if(i==0||i==2)
        {
          st1=st1+(int)(ch[i]-96);
        }
        else
        {
          st1=st1+ch[i];
        }
      }
      for (int i = c1.length-1; i>=0; i--)
      {
        st1=st1+c1[i];
      }
      System.out.println(st1);
    }
    else
    {
      System.out.println("invalide");
    }
  }
  private static boolean verify(String st)
  {
    char ch[]=st.toCharArray();
    for (int i = 0; i<ch.length; i++)
    {
```

```
      if((ch[i]>='a' && ch[i]<='z')==false)
      {
        return false;
        }
    }
    return true;
  }
-------------------------Manu's Code-----------------------------
public static void main(String[] args)
  {
    String str="abnjuytsg";
    String st="";

    String rev=str.substring(6);
    for (int i = 0; i < rev.length(); i++)
    {
      char ch=rev.charAt(i);
      st+=(++ch);
    }
    st+=str.charAt(0)-96;
    st+=str.charAt(1);
    st+=str.charAt(2)-96;

    StringBuffer sb=new StringBuffer(str.substring(3,6));
    st+=sb.reverse();

    System.out.println(st);
  }
-------------------------Madakari's Nayaka-----------------------------
public static void main(String[] args)
  {
    String s = "abnjuytsg";
    String[] a=s.split("[0-9 A-Z]");//a-z
    if(a.length>1)
    {
      System.out.println("Invalid");
    }
    else
    {
      String[] s1 = s.split("[0-9]");
      String s2 = s.toLowerCase();
      if(s.length() > 9 || s != s2 || s1.length != 1)
      {
        System.out.println("invalid");
      }
      else
      {
        String a1="",a2="",a3="";
        a1 = s.substring(0,3);
        a2 = s.substring(3,6);
        a3 = s.substring(6,9);
        // first String
        int n1 = a1.charAt(0)-96;
        char n2 = a1.charAt(1);
        int n3 = a1.charAt(2)-96;
        a1 = "";
        a1 = a1 + n1 + n2 + n3;
        //second String
        String rev="";
        for(int i = a2.length()-1; i>=0; i--)
        {
          rev += a2.charAt(i);
        }
        //third String
        int l1 = a3.charAt(0)+1;
        int l2 = a3.charAt(1)+1;
        int l3 = a3.charAt(2)+1;

        a3 = "";
        a3 = a3 + (char)l1 + (char)l2 + (char)l3;

        String Result="";
        Result = Result + a3 + a1 + rev;
        System.out.println(Result);
      }
    }
  }
```

5. WJPT Find Highest Repeated Values with Count. Input= "banana" O/P= a=3 ?

▼ Ans

```
--------------banana--> a=3 ---------------------------
public static void main(String[] args)
  {
    String str="babbbbnana";
    int count[]=new int[128];
    for (int i = 0; i < str.length(); i++)
    {
      count[str.charAt(i)]++;
    }
    int bigs=0,ch=0;
    for (int i = 0; i < count.length; i++)
    {
      if(count[i]!=0)
        if(count[i]>bigs)
        {
          bigs=count[i];
          ch=i;
        }
    }
    System.out.println((char)ch+" --> "+bigs);
  }
--------------banana--> a=3 (Bit-Set Method)---------------------------
public static void main(String[] args)
  {
    String st="banana";
    char c[]=st.toCharArray();
    int big=c[0];
    for (int i = 0; i < c.length; i++)
    {
      if(big<c[i])
        big=c[i];
    }
    int count[]=new int[big+1];
    for (int i = 0; i < c.length; i++)
    {
      count[c[i]]++;
    }
    int bigs=0, ch=0;
    for (int i = 0; i < count.length; i++)
    {
      if(count[i]!=0)
      {
        if(count[i]>bigs)
        {
          bigs=count[i];
          ch=i;
        }
      }
    }
    System.out.println((char)ch+"-->"+bigs);
  }
---------------------banana--> b=1----------------------------------------
public static void main(String[] args)
  {
    String st="banana";

    char c[]=st.toCharArray();
    int big=c[0];
    for (int i = 0; i < c.length; i++)
    {
      if(big<c[i])
        big=c[i];
    }
    int count[]=new int[big+1];
    for (int i = 0; i < c.length; i++)
    {
      count[c[i]]++;
    }
    int bigs=0,ch=0;
    for (int i = 0; i < count.length; i++)
    {
      if(count[i]!=0)
        bigs=count[i];
```

```
    }
    for (int i = 0; i < count.length; i++)
    {
      if(count[i]!=0)
      {
        if(count[i]<bigs)
        {
          bigs=count[i];
          ch=i;
        }
      }
    }
    System.out.println((char)ch+"-->"+bigs);
  }
```

6. Input= "aabb" O/P= [2,4] Input= "aabbcc" O/P= [3,6] ?

▼ Ans

```
public static void main(String[] args)
  {
    String str="aabbcc";
    int count[]=new int[128];
    for (int i = 0; i < str.length(); i++)
    {
      count[str.charAt(i)]++;
    }
    int c=0;
    for (int i = 0; i < count.length; i++)
    {
      if(count[i]!=0)
        c++;
    }
    System.out.println(c+","+str.length());
  }
------------------Bit-Set Method--------------------------------
public static void main(String[] args)
  {
    String str="aabb";
    char ch[]=str.toCharArray();
    int big=ch[0];
    for (int i = 0; i < ch.length; i++)
    {
      if(big<ch[i])
        big=ch[i];
    }
    int count[]=new int[big+1];
    for (int i = 0; i < ch.length; i++)
    {
          count[ch[i]]++;
    }
    int c=0;
    for (int i = 0; i < count.length; i++)
    {
          if(count[i]!=0)
            c++;
    }
    System.out.println(c+","+str.length());
  }
-----------(Store it in Array) O/p= [2,4]-----------------------------
public static void main(String[] args)
  {
    {
      String str="aacbb";
      char ch[]=str.toCharArray();
      int big=ch[0];
      for (int i = 0; i < ch.length; i++)
      {
        if(big<ch[i])
          big=ch[i];
      }
      int count[]=new int[big+1];
      for (int i = 0; i < ch.length; i++)
      {
        count[ch[i]]++;
      }
```

```
      int c=0;
      for (int i = 0; i < count.length; i++)
      {
        if(count[i]!=0)
          c++;
      }
      int co[]= {c,str.length()};
      System.out.println(Arrays.toString(co));
    }
  }
```

7. WJAP print the probability of String using Recursion ? Input= "abc" O/P= abc acb bac bca cab cba

▼ Ans

```
public static void main(String[] args)
    {
        String str = "abc";
        String rev="";
        printPermutn(str,rev);
    }
  static void printPermutn(String str,String rev)
    {
        if (str.length() == 0)
        {
            System.out.println(rev);
            return;
        }
        for (int i=0; i <str.length(); i++)
        {
            char ch=str.charAt(i);
            String st=str.substring(0,i)+str.substring(i+1);
            printPermutn(st,rev+ch);
        }
    }
```

8. Take 4 string from the user and print in string format based on their Alphabetical order ascending or descending order ?

▼ Ans

```
public static void main(String args[])
  {
    String str[]= {"Manu","Diomand","Kavi","Nandy","Meghraj"};
    TreeSet < String> tr=new TreeSet<String>();
    for (int i = 0; i < str.length; i++)
    {
       tr.add(str[i]);
    }
    System.out.println(tr);
```

9. Take 4 string from the user and print in string format based on their length ascending or descending order ? Input= {"bca","a","bc","absng","abnb"} Output= a bc bca abnb absng

▼ Ans

```
public static void main(String args[])
  {
    String str[]= {"manu","Diomand","Kavi","Nandy","Meghraj"};
    for (int i = 0; i < str.length-1; i++)
    {
      for (int j = 0; j < str.length-1-i; j++)
      {
          if(str[j].length()>str[j+1].length())
          {
            String t=str[j];
            str[j]=str[j+1];
            str[j+1]=t;
          }
      }
    }
```

```
    for (int i = 0; i < str.length; i++) {
      System.out.println(str[i]);
    }
------------------By using Collection------------------
public static void main(String args[])
  {
    Comparator com=new Comparator<String>() {

      @Override
      public int compare(String o1, String o2)
      {

        if(o1.length()!=o2.length())
        return ((Integer)o1.length()).compareTo((Integer)o2.length());
        return 1;
      }

    };
    String str[]= {"Manu","Diomand","Kavi","Nandy","Meghraj","Diamand"};
    TreeSet < String> tr=new TreeSet<String>(com);
    for (int i = 0; i < str.length; i++)
    {
       tr.add(str[i]);
    }
    System.out.println(tr);
  }
---------------------------------------
public static void main(String args[])
  {
    Comparator com=new Comparator<String>() {

      @Override
      public int compare(String o1, String o2)
      {
        if(o1.length()>o2.length())
        {
          return 1;
        }
        else if(o1.length()<o2.length())
        {
          return -1;
        }
        else
          return 1;
      }

    };
    String str[]= {"Manu","Diomand","Kavi","Nandy","Meghraj","Diamand"};
    TreeSet < String> tr=new TreeSet<String>(com);
    for (int i = 0; i < str.length; i++)
    {
       tr.add(str[i]);
    }
    System.out.println(tr);
```

10. Reverse the string without using inbuilt method ?

▼ Ans

```
public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the String:= ");
    String str=sc.nextLine();sc.close();
    String res="";
    for(int i=str.length()-1; i>=0; i--)
    {
      res=res+str.charAt(i);
    }
    System.out.println(res);
  }
```

15. Print the next vowel ?

▼ Ans

```
public static void main(String args[])
  {
    Scanner sc=new Scanner(System.in);
    char ch=sc.next().charAt(0);sc.close();
    if(ch>='A'&&ch<='D')
      System.out.println("E");
    else if(ch>='a'&&ch<='d')
      System.out.println("e");
    else if(ch>='E'&&ch<='I')
      System.out.println("O");
    else if(ch>='e'&&ch<='i')
      System.out.println("o");
    else if(ch>='J'&&ch<='O')
      System.out.println("U");
    else if(ch>='j'&&ch<='o')
      System.out.println("u");
    else if(ch>='P'&&ch<='Z')
      System.out.println("A");
    else
      System.out.println("a");
  }
```

16. Print the length of string without using any inbuilt method ?

▼ Ans

```
public static void main(String[] args)
  {
    String str="SampleString";
        int i=0;
    for(char c:str.toCharArray())
    {
      i++;
    }
    System.out.println(i);
  }
```

17. Find repeated characters ,which is replaced with $(dollar symbol). Input= APPLE Output= A$$LE Input= mmaanukm Output=$$$$nuk$

▼ Ans

```
static int count(char c,String s)
  {
    int cu=0;
    for(int i=0; i<s.length(); i++)
    {
      if(c==s.charAt(i))
        cu++;
    }
    return cu;
  }
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);
    String s=sc.next();sc.close();
    char ch[]=s.toCharArray();
    for(int i=0; i<ch.length; i++)
    {
      int b=count(ch[i],s);
      if(b>1)
        ch[i]='$';
    }
    s=new String(ch);

    System.out.println(s);
  }
```

18. Sort the word alphabetically .ex (INPUT) :BAT , OUTPUT: ABT Input= BAT Output= ABT

▼ Ans

```
----------------Without using Inbuilt mathod-----------------
public static void main(String args[])
  {
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter a string value: ");
    String str = sc.next();sc.close();
    char ch[] = str.toCharArray();
    for(int i = 0; i < ch.length; i++ )  //Bubble sort
    {
      for(int j = i+1; j < ch.length; j++)
      {
        if(ch[i]>ch[j])
        {
          int temp = ch[i];
          ch[i] = ch[j];
          ch[j] = (char) temp;
        }
      }
    }
    str=new String(ch);
    System.out.println(str);
  }
----------------Withusing Inbuilt mathod-----------------
public static void main(String args[])
    {
      Scanner sc=new Scanner(System.in);
      String str=sc.nextLine();sc.close();
      char ch[]=str.toCharArray();
      Arrays.sort(ch);
      str=new String(ch);
      System.out.println(str);
    }
```

19. Print Second letter of word without using Inbuilt method ?

▼ Ans

```
public static void main(String[] arg)
  {
    Scanner sc=new Scanner(System.in);
    String str="Manu km";sc.close();
    char ch[]=str.toCharArray();
    for(int i=0; i<ch.length; i++)
    {
      if(i==0&&ch[i]!=' '||ch[i]!=' '&&ch[i-1]==' ')
        System.out.println(ch[i+1]);
    }
  }
```

20. WJPT validate password is correct or not based on some condition like.

- # length should be greater then 7 and less than 20.
- # password should not contain “password” as String.
- # password should at-least one character should be present.

▼ Ans

```
public static void main(String args[])
  {
    Scanner sc= new Scanner(System.in);
    String st=sc.next();
    if(st.length()<7||st.length()>20)
    {
      System.out.println("enter password between 7 to 20 !!!");
    }
```

```
    else if(st.equalsIgnoreCase("password"))
    {
      System.out.println("don't enter password as password !!!");
    }
    else
    {
      boolean tr=checkCharacter(st);
      if(tr)
      {
        System.out.println("Pass is correct");
      }
      else
      {
        System.out.println("it should contain special character");
      }
    }
  }

  private static boolean checkCharacter(String s)
  {
    char ch[]=s.toCharArray();
    for (int i = 0; i < ch.length; i++)
    {
      if((ch[i]>='0'&&ch[i]<='9'||ch[i]>='A'&&ch[i]<='Z'||
          ch[i]>='a'&&ch[i]<='z')==false)
      {
        return true;
      }
    }
    return false;
  }
```

1. WJAP that will print the different ways the letters of a given word can be arranged in such a way that the vowels always come together. add appropriate validations Input:= “ICE”
   Output:= “IEC”, “CIE”, “EIC”, “CEI” Input:= “FLY”
   Output:= “There are no vowels in the string”

   ▼ Ans

```

```

2. write a program to next alphabet?

   ▼ Ans

98. WJPT find first repeated and non repeated character in the given string ?

    ▼ Ans

68. WJPT read the number from the user and print that number in terms of words

    ▼ Ans

```
static void nw(int x,String st)
{
  String one[]= {"","ONE","TWO","THREE","FOUR","FIVE","SIX","SEVEN",
      "EIGHT","NINE","TEN","ELEVEN","TWELVE","THIRTEEN","FOURTEEN",
      "FIFTEEN","SIXTEEN","SEVENTEEN","EIGHTTEEN","NINTEEN"};
  String two[]= {"","","TWENTY","THIRTY","FOURTY","FIFTY","SIXTY","SEVENTY",
      "EIGHTY","NINTY"};
  if(x<20)
  {
    System.out.print(one[x]);
  }
  else
  {
    System.out.print(two[x/10]+" "+one[x%10]+" ");
  }
```

```
  if(x!=0)
    System.out.print(" "+st+" ");
}
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter the Number := ");
  int n=sc.nextInt();

  nw(n/10000000,"crore");
  nw(n/100000%100,"LAKH");
  nw(n/1000%100,"THOUSAND");
  nw(n/100%10,"HUNDRED");
  nw(n%100," ");
}
```

69. WJPT to print number of days between two dates ?

    ▼ Ans

70. You are given an array of strings separated by a space. Your task is to find the maximun value of length(string[i]*length(string[j]) where two strings do not have any common alphabet,if no such strings exist the answer will be 0. Input= “abcw baz foo bar xtfn abcdef” Output= 16 Explanation="xtfn" and "abcw" has no common letters and also the longest of this type len(s1)*len(s2) => 4*4=16.

    ▼ Ans

71. Max Subarray: Have the function MaxSubarray (arr) take the array of numbers stored in art and determine the largest sum that can be formed by any contiguous subarray in the array. For example, if azz is [-2, 5, -1, 7, -3] then your program should return 11 because the sum is formed by the subarray [5, -1, 7]. Adding any element before or after this subarray would make the sum smaller. Input= {1,-2,0,3}; Output=3 , Input= {3,-1,-1,4,3,-1}; Output=8 , Input= {-2,5,-1,7,-3}; Output=11 ?

    ▼ Ans

72. Have the function Matching Characters (str) take the str parameter being passed and determine the largest number of unique characters that exists between a pair of matching letters anywhere in the string. For example: if str is "ahyjakh" then there are only two pairs of matching letters, the two a's and the two h's. Between the pair of a's there are 3 unique characters: h, y, and j. Between the h's there are 4 unique characters: y, j, a, and k. So for this example your program should return 4. Another example: if str is "ghececgkaem" then your program should return 5 because the most unique characters exists within the farthest pair of e characters. The input string may not contain any character pairs, and in that case your program should just return 0. The input will only consist of lowercase alphabetic characters. Input=”mmmerme” Output=3 , Input=”abccdefghi” Output=0 , Input=”ahyjakh” Output=4 , Input=”ghececgkaem” Output=5 ?

    ▼ Ans