Prog_1. Write a program to check whether a number is prime or not?

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass PrimeNumber {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a number to check");

		intx=sc.nextInt();

		intcounter=0;

		for(inti=2;i<=x/2;i++){
			if(x % i==0){
				counter=1;
				System.out.println("Entered number is not a prime number");
				break;
			}
		}
		if(counter==0)
		System.out.println("This is a prime number");



	}

}
```

VBScript:

```
x=inputbox("enter a number to check")

counter=0

For i=2 to x/2

	If x mod i=0 Then
		counter=1
		msgbox "Entered number is not a prime number"
		Exit for
	End If

Next

If counter=0 Then
	msgbox "This is a prime number"
End If
```

Prog_2. Write a program to find fibonacci series for a given range.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass Fibonacci {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("Enter a range");

		intfirst=0;
		intsec=1;
		intlast=0;

		intx=sc.nextInt();

		System.out.print(first +","+ sec + ",");
		String temp="";
		for(inti=1;i<=x;i++){
			last=first+sec;
			first=sec;
			sec=last;
			temp=temp+last+",";

		}

		System.out.print(temp);

	}
}
```

VBScript:

```
x=inputbox("enter a range")

temp=""
first=0
temp1=first
sec=1
temp2=sec
last=0

For i=1 to x

last=temp1+temp2
temp1=temp2
temp2=last
temp=temp&last&","

Next

msgbox first&","&sec&","&temp
```

Prog_3. Write a program to check whether a given string is palindrome or not?

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass Palindrome {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);

		System.out.println("Enter a string to check");

		String temp="";
		String x=sc.nextLine();

		for(inti=0;i<x.length();i++){
			temp=x.charAt(i)+temp;
		}

		if(x.equals(temp)){
			System.out.println("The given string is palindrome");
		}
		else
		{
			System.out.println("Not a palindrome");
		}

	}

}
```

VBScript:

```
x=inputbox("enter a string")

temp=""

len1=len(x)

For i=1 to len1

	y=mid(x,i,1)
	temp=y&temp

Next

If x=temp Then
	msgbox "This is a palindrome"

	else
	msgbox "Not a palindrome"
End If
```

Prog_4. Write a program tocheck whether a number is Armstrong number?

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass ArmstrongNumber {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a number to check");
		intx=sc.nextInt();

		inttemp=x;
		intsum=0;

		while(temp!=0){

			intr=temp%10;
			sum=sum+r*r*r;
			temp=temp/10;
		}

		if(x==sum){
			System.out.println("Armstrong number");
		}
		else{
			System.out.println("Not an armstrong number");
		}


	}

}
```

Prog_5. Write a program to find duplicates in an array.

Java:

Method 1:

```
package JavaProgs;

import java.util.HashSet;

publicclass DupliArray {

	publicstaticvoid main(String[] args) {

		int [] arr={4,12,1,23,4,1,5,16,1};

		HashSet<Integer>h1=new HashSet<Integer>();

		for(Integer i1 : arr){
			if(h1.add(i1)==false){
				System.out.println("Duplicates are"+" "+i1+",");
			}
		}

	}

}
```

Method 2:

```
package JavaProgs;
```

```
publicclass DupliArray2 {

	publicstaticvoid main(String[] args) {

		int [] arr={4,12,1,23,4,1,5,16,1};

		for(inti=0;i<arr.length-1;i++){
			for(intj=i+1;j<arr.length;j++){
				if(arr[i]==arr[j]){
					System.out.println("Duplicates are:"+ " "+arr[i]);
				}

			}
		}

	}

}
```

VBScript:

```
arr=array(12,3,21,14,3,1,12,3)

For i=0 to ubound(arr)
	For j=i+1 to ubound(arr)

		If arr(i)=arr(j) Then
			print "Duplicates are:"& " "&arr(i)
		End If

	Next

Next
```

Prog_6. Write a program to find duplicate character in a string.

Java:

```
package JavaProgs;

import java.util.HashSet;

publicclass DupliChar {

	publicstaticvoid main(String[] args) {

		String s="indonesiain";

		char[] ch=s.toCharArray();

		HashSet<Character>hash=new HashSet<Character>();

		for(Character c: ch){
			if(hash.add(c)==false)
				System.out.println("Duplicates are:"+" "+c);
		}

	}
```

```
}
```

Prog_7. Write a program tocheck number of times substring appeared in a string.

Java:

```
package JavaProgs;

publicclass DupliWords {

	publicstaticvoid main(String[] args) {

		String s="raghu ne raghu se kaha ki raghu nahi aayega";

		String [] arr=s.split("raghu");

		System.out.println((arr.length)-1);

	}

}
```

VBScript:

```
str="raghu ne raghu se kaha ki raghu nahi aayega"

strArray=split(str,"raghu")

print ubound(strArray)
```

Prog_8. Write a program toprint below pattern:

1
12
123
1234
12345

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass Pattern1 {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a range");
		intx=sc.nextInt();

		for(inti=1;i<=x;i++){
			for(intj=1;j<=i;j++){
```

```
                    System.out.print(j);
                }
                System.out.println();
            }

        }

}
```

Prog_9. Write a program toprint below pattern:

```
*
***
*****
*******
*********
```

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass Pattern2 {

    publicstaticvoid main(String[] args) {

        Scanner sc=new Scanner(System.in);
        System.out.println("enter a range");
        intx=sc.nextInt();

        intp=0;
        for(inti=1;i<=x;i++){
            for(intj=1;j<=i+p;j++){
                System.out.print("*");
            }
            System.out.println();
            p=p+1;
        }


    }

}
```

Prog_10. Write a program toprint Floyd's triangle.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass FloyedsTriangle {

    publicstaticvoid main(String[] args) {
```

```
                Scanner sc=new Scanner(System.in);
                System.out.println("enter a range");
                intx=sc.nextInt();
                intp=1;
                for(inti=1;i<=x;i++){
                        for(intj=1;j<=i;j++){
                                System.out.print(p);
                                p++;
                        }
                        System.out.println();
                }

        }

}
```

Prog_11. Write a program toread file line by line.

Java:

```
package JavaProgs;

import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;

publicclass ReadFileLineByLine {

        publicstaticvoid main(String[] args) throws IOException {
                String s=null;

                BufferedReader br=new BufferedReader(new
FileReader("C:\\Users\\Dell1\\Desktop\\MyFile.txt"));

                while((s=br.readLine())!=null){
                        System.out.println(s);
                }

        }

}
```

Prog_12. Write a program toswap 2 numbers without using temp variable.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass SwappingNum {
```

```
	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);

		System.out.println("enter first number");
		inta=sc.nextInt();
		System.out.println("enter second number");
		intb=sc.nextInt();

		a=a+b;
		b=a-b;
		a=a-b;

		System.out.println("First number is:"+a+" "+"and second number is"+" "+b);

	}

}
```

VBScript:

```
a=12
b=6
a=a+b
b=a-b
a=a-b
print a
print b
```

Prog_13. Write a program tofind factorial of a number.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass Factorial {

	publicstaticvoid main(String[] args) {

		intfact=1;

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a number to find factorial");
		intx=sc.nextInt();

		for(inti=x;i>=1;i--){
			fact=fact*i;
		}
		System.out.println(fact);

	}
}
```

VBScript:

```
x=inputbox("enter a number")
fact=1
For i=x to 1 step -1

	fact=fact*i

Next

print fact
```

Prog_14. Write a program tocheck if a number is palindrome.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass PalinNumber {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a number to check");

		intx=sc.nextInt();

		inttemp=x;
		intsum=0;

		while(temp>0){
			intr=temp%10;
			sum=(sum*10)+r;
			temp=temp/10;
		}

		if(x==sum){
			System.out.println("Palindrome");
		}
		else{
			System.out.println("Not a Palindrome");
		}


	}

}
```

Prog_15. Write a program tosort(Bubble) an array.

Java:

```
package JavaProgs;

publicclass BubbleSort {

	publicstaticvoid main(String[] args) {

		int [] arr={23,1,12,4,5,61,18,7};

		inttemp;

		for(inti=0;i<arr.length;i++){
			for(intj=0;j<arr.length-1;j++){
				if(arr[j]>arr[j+1]){
					temp=arr[j];
					arr[j]=arr[j+1];
					arr[j+1]=temp;
				}
			}
		}

		String flag="";
		for(intk=0;k<arr.length;k++){
			flag=flag+arr[k]+",";
		}
```

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

}
```

VBScript:

```
arr=Array(21,2,32,12,5,6,11,1,18)

For i=lbound(arr) to ubound(arr)
For j=lbound(arr) to ubound(arr)-1

        If arr(j)>arr(j+1) Then
                temp=arr(j)
                arr(j)=arr(j+1)
                arr(j+1)=temp
        End If

Next

        next

        flag=""

        For k=lbound(arr) to ubound(arr)

flag=flag&arr(k)&","

        Next

        print flag
```

Prog_16. Write a program tofind length of a string without using inbuilt function(len or length()).

VBScript:

Method 1:

```
str="India is awesome"

str1=str&"$"

print instr(1,str1,"$")-1
```

Method 2:

```
str="India is awesome"

i=1

Do
        If mid(str,i,1)<>"" then
                i=i+1
                else
                Exit do
                end if

Loop
print i-1
```

Prog_17. Write a program to determine if an year is leap year.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass LeapYear {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a year to check");
		intyear=sc.nextInt();

if((year % 400 == 0) || ((year % 4 == 0) && (year % 100 != 0)))
	  System.out.println("Year " + year + " is a leap year");
else
	  System.out.println("Year " + year + " is not a leap year");

	}

}
```

Prog_18. Write a program to find number of vowels in a string.

Java:

```
package JavaProgs;

publicclass FindVowel {

	publicstaticvoid main(String[] args) {

		String s="india is a big country";
		intcounter=0;

		for(inti=0;i<s.length();i++){

	if(s.charAt(i)=='a'||s.charAt(i)=='e'||s.charAt(i)=='i'||s.charAt(i)=='o'||s.charAt(i)=='u'){
				counter=counter+1;
			}
		}
		System.out.println(counter);

	}

}
```

Prog_19. Write a program to make the string “Name is Smith” as “Smith is Name”.

Java:

```
package JavaProgs;

publicclass ChangeString {

	publicstaticvoid main(String[] args) {

		String s="Name is Smith";
```

```
		String temp;

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

		temp=arr[0];
		arr[0]=arr[2];
		arr[2]=temp;

		for(String s1 : arr){
			System.out.print(s1+" ");
		}

	}

}
```

Prog_20. Write a program to extract numeric values from a string.

VBScript:

```
str="India123awe4781som9e"

flag=""

For i=1 to len(str)

	If isnumeric(mid(str,i,1))=true Then
		flag=flag&mid(str,i,1)&","
	End If

Next

print flag
```

Java:

```
package JavaProgs;

publicclass OnlyNumeric {

	publicstaticvoid main(String[] args) {

		String s="Struggle12for5andind829";
		String s2="";

		String arr[]=s.split("[a-zA-Z]+");

		for(String s1 : arr){

			s2=s2+s1.trim();

		}
		//System.out.println(s2);
		char[]ch=s2.toCharArray();

		for(Character c : ch){
			System.out.print(c+",");
		}

	}

}
```

Prog_21. Write a program to find second largest number in an array.

Java:

```
package JavaProgs;

publicclass SecHighestNum {

	publicstaticvoid main(String[] args) {

		int [] arr={12,2,14,7,32,18,23,22,11};
		inttemp;

		for(inti=0;i<arr.length;i++){
			for(intj=0;j<(arr.length)-1;j++){
				if(arr[j]>arr[j+1]){
					temp=arr[j];
					arr[j]=arr[j+1];
					arr[j+1]=temp;
				}
			}
		}

		System.out.println(arr[(arr.length)-2]);

	}

}
```

Prog_22. Write a program to sort a string.

Java:

```
package JavaProgs;

import java.util.Arrays;

publicclass SortString {

	publicstaticvoid main(String[] args) {

		String s ="unconditionalscope";

		char[]ch=s.toCharArray();

		Arrays.sort(ch);

		String sorted=new String(ch);
		System.out.println(sorted);

	}

}
```

Prog_23. Write a program to find factorial of a number using recursion.

Java:

```
package JavaProgs;

publicclass FactWithRecursion {

	publicstaticvoid main(String[] args) {
```

```
		FactWithRecursion rec=new FactWithRecursion();
		intres=rec.fact(6);
		System.out.println(res);


	}

	publicint fact(intx){
		if(x==1){
			return 1;
		}
		intfact1=fact(x-1)*x;
		returnfact1;
	}

}
```

Prog_24. Write a program to reverse a string using recursion.

Java:

```
package JavaProgs;

publicclass StrRevWithRecursion {

	publicstaticvoid main(String[] args) {

		String s="Mahabharat";
		StrRevWithRecursion rec=new StrRevWithRecursion();
		String rev=rec.revRecurse(s);
		System.out.println(rev);


	}

	public String revRecurse(String myStr){

		if(myStr==null||myStr.length()<1){
			returnmyStr;
		}
		return revRecurse(myStr.substring(1))+myStr.charAt(0);

	}

}
```

Prog_25. Write a program to find most repeated/frequent element in an array.

Java:

Method 1:

```
package JavaProgs;

publicclass MostRepeatedNum {

	publicstaticvoid main(String[] args) {

		intarr[]={2,12,5,4,12,3,4,2,4,5,12,5,14,3,5};

		intelement=0;
		intcount=0;
```

```
                for(inti=0;i<arr.length;i++){
                        inttempElement=arr[i];
                        inttempCount=0;

                        for(intj=0;j<arr.length;j++){
                                if(arr[j]==tempElement){
                                        tempCount++;
                                }
                                if(tempCount>count){
                                        element=tempElement;
                                        count=tempCount;
                                }
                        }
                }
          System.out.println("The most frequent element is:"+element+" "+"frequency is:"+count);
        }

}
```

Method 2:

```
package JavaProgs;

import java.util.HashMap;
import java.util.Iterator;
import java.util.Map.Entry;
import java.util.Set;

publicclass MostRepeatedNum2 {

        publicstaticvoid main(String[] args) {

                int[] arr = {1,2,9,3,4,3,3,1,2,4,5,3,8,3,9,0,3,2};

        intmaxKey = -1;
        intmaxValue = -1;

             HashMap<Integer, Integer>hash = new HashMap<Integer, Integer>();

        for (inti = 0; i<arr.length; i++) {
        if (!hash.containsKey(arr[i]))
        hash.put(arr[i], 1);
        else
        hash.put(arr[i], hash.get(arr[i])+1);
             }

             Set<Entry<Integer,Integer>>s1=hash.entrySet();
             Iterator<Entry<Integer, Integer>>i1=s1.iterator();

        while(i1.hasNext()){
                 Entry<Integer,Integer>entry=i1.next();
                if (entry.getValue() >maxValue) {
                maxKey = entry.getKey();
                maxValue = entry.getValue();
                        }
             }

                System.out.println("The winner is number "+maxKey+" its frequency of occurrence is
"+maxValue);

        }
}
```

Prog_26. Write a program to check whether a number is perfect number.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass PerfectNum {

	publicstaticvoid main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("Enter a number to check");
		intx=sc.nextInt();
		intcounter=0;
		for(inti=1;i<=x/2;i++){
			if(x%i==0){
				counter=counter+i;
			}
		}
		if(x==counter){
			System.out.println("Perfect number");
		}
		else
			System.out.println("Not a perfect number");

	}

}
```

Prog_27. Write a program to find common elements in 2 arrays.

Java:

```
package JavaProgs;

publicclass CommonElemArray {

	publicstaticvoid main(String[] args) {

		int [] arr1={22,5,13,12,32,7,8,3,2,17};
		int [] arr2={20,51,1,12,2,17,28,13,2,7,5,23,9};

		for(inti=0;i<arr1.length;i++){
			for(intj=0;j<arr2.length;j++){
				if(arr1[i]==arr2[j]){
					System.out.println("Common elements are:"+arr1[i]);
				}
			}
		}
	}

}
```

Prog_28. Write a program to sort elements of an array using selection sort.

Java:

```
package JavaProgs;

publicclass SelectionSort {

	publicstaticvoid main(String[] args) {

		int [] arr={12,4,5,1,23,7,9,13};

		for(intarrow=0;arrow<arr.length;arrow++){
			//find the minimum
			intmin=arr[arrow];
			intminPos=arrow;
			for(inti=arrow;i<arr.length;i++){
				if(arr[i]<min){
					min=arr[i];
					minPos=i;
				}
			}
				//swap
				inttemp=arr[arrow];
				arr[arrow]=min;
				arr[minPos]=temp;
		}
		//collecting and printing array
		String sort="";
			for(intj=0;j<arr.length;j++){
				sort=sort+arr[j]+",";
}
				System.out.println(sort);
	}

}
```

Prog_29. Write a program for binary search.

Java:

```
package JavaProgs;

import java.util.Scanner;

publicclass BinarySearch {

	publicstaticvoid main(String[] args) {
		intc, first, last, middle, n, search, array[];

	   Scanner in = new Scanner(System.in);
	   System.out.println("Enter number of elements");

	n = in.nextInt();
	array = newint[n];

	 System.out.println("Enter " + n + " integers");
```

```
for (c = 0; c<n; c++)
            array[c] = in.nextInt();
             System.out.println("Enter value to find");
            search = in.nextInt();

            first  = 0;
            last   = n - 1;
            middle = (first + last)/2;

            while( first<= last )
               {
            if ( array[middle] <search )
            first = middle + 1;
            elseif ( array[middle] == search )
                 {
                  System.out.println(search + " found at location " + (middle + 1) + ".");
            break;
                 }
            else
            last = middle - 1;

            middle = (first + last)/2;
              }
            if ( first>last )
                 System.out.println(search + " is not present in the list.\n");

            }

}
```

Prog_30. Write a program to get maximum word count in a line from a file.

Java:

```
package JavaProgs;

import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;

publicclass MaxWordsInFile {

            publicstaticvoid main(String[] args) throws IOException {
                        String s=null;
                        intmaxCount=0;
                        BufferedReader br=new BufferedReader(new
FileReader("C:\\Users\\Dell1\\Desktop\\MyFile.txt"));
                        while((s=br.readLine())!=null){
                                    String arr[]=s.split(" ");
                                    intcount=arr.length;
                                    if(count>maxCount){
                                    maxCount=count;
                                    }
                        }
                        System.out.println(maxCount);

            }

}
```

Prog_31. Write a program for linear search.

Java:

```
package JavaProgs;
```

```
import java.util.Scanner;

publicclass LinearSearch {

	publicstaticvoid main(String[] args) {

		inti,j,n,search, array[];

	   Scanner in = new Scanner(System.in);
	   System.out.println("Enter number of elements");
	n = in.nextInt();
	array = newint[n];

	   System.out.println("Enter " + n + " integers");


	for (i = 0; i<n; i++)
	array[i] = in.nextInt();

	   System.out.println("Enter value to find");
	search = in.nextInt();

	for( j=0;j<n;j++){
		if(array[j]==search){
			System.out.println("search found at location "+(j+1));
			break;
		}

		}
	if(j==n){
		System.out.println("Element is not present in the list");

	   }

	}

}
```

Prog_32. Write a program to find factorial of large number.

Java:

```
package JavaProgs;

import java.math.BigInteger;

publicclass LargeFactorial {

	publicstaticvoid main(String[] args) {

		intnum=25;

		BigInteger fact=BigInteger.ONE;

		for(inti=1;i<=num;i++){
			fact=fact.multiply(BigInteger.valueOf(i));
		}
		System.out.println(fact);

	}

}
```

Prog_33. Write a program to swap 2 numbers using multiplication and division operator but without using a temp variable.

Java:

```
package JavaProgs;

publicclass SwapUsingOperator {

	publicstaticvoid main(String[] args) {
		inta=4;
		intb=13;
		a=a*b;
		b=a/b;
		a=a/b;
		System.out.println(a);
		System.out.println(b);
	}}
```

Prog_34. Write a program to check whether 2 string are Anagram or not.

Java:

```
package JavaProgs;

import java.util.Arrays;

publicclass Anagram {

	publicstaticvoid main(String[] args) {

		String s1="gullu";
		String s2="lgluu";


		char[]ch1=s1.toCharArray();
		char[]ch2=s2.toCharArray();

		Arrays.sort(ch1);
		Arrays.sort(ch2);

		String s3=new String(ch1);
		String s4=new String(ch2);

		if(s3.equals(s4)){
			System.out.println("Anagram");
		}
		else
		System.out.println("Not a Anagram");
	}

}
```

Prog_35. Write a program to swap 2 elements in a list.

Java:

```
package JavaProgs;

import java.util.ArrayList;
import java.util.Collections;

public class SwapList {

	public static void main(String[] args) {

		ArrayList al=new ArrayList();
		al.add(2);
```

```
		al.add(4);
		al.add(8);
		al.add(19);
		System.out.println("Before swapping"+al);
		Collections.swap(al, 2, 3);
		System.out.println("After swapping"+al);
	}

}
```

Prog_36. Write a program to reverse elements in a list.

Java:

```
package JavaProgs;

import java.util.ArrayList;
import java.util.Collections;

public class ReverseList {

	public static void main(String[] args) {

		ArrayList al=newArrayList();
		al.add(2);
		al.add(4);
		al.add(8);
		al.add(19);
		System.out.println("Before reversing"+al);
		Collections.reverse(al);
		System.out.println("After reversing"+al);
	}

}
```

Prog_37. Write a program to check whether input character is an alphabet.

Java:

```
package JavaProgs;

import java.util.Scanner;

public class CharCheck {

	public static void main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("enter a character");
		charch=sc.next().charAt(0);

		if((ch>='a'&&ch<='z')||(ch>='A'&&ch<='Z')){
			System.out.println("character is an alphabet");
		}
		else{
			System.out.println("character is not an alphabet");
		}
```

```
	}

}
```

Prog_38. Write a program using recursion to check whether a number is prime or not.

```
import java.util.*;

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

		Scanner sc=new Scanner(System.in);
		System.out.println("Enter a number to check");
		int x=sc.nextInt();

		ex e1=new ex();
		int flag=e1.primer(x,2);

		if(flag==0){
			System.out.println("Entered number is not prime");
		}
		else
			System.out.println("This is a prime number");

	}

	public int primer(int y, int i){
		if (i<y) {

			if(y%i!=0){
				return primer(y,++i);
			}
			else
				return 0;

		}
		return 1;
	}
}
```

Prog_39. Write a program to find distinct elements in an array.

or

Write a program to remove duplicate elements in an array.

Method:1

```
package JavaProgs;

public class DistinctElem {

	public static void main(String[] args) {

		int arr[]={2,1,3,4,3,2,1,6,8,9,34,2,34};
		for(int i=0;i<arr.length;i++){
			boolean dist=false;
			for(int j=0;j<i;j++){
				if(arr[i]==arr[j]){
					dist=true;
				break;}
			}
			if(dist==false){
				System.out.println(arr[i]);
			}
```

```
		}

	}

}
```

Method:2

```
package JavaProgs;

public class RemoveDuplicates {

	public static void main(String[] args) {

		int arr[]={2,12,3,4,4,7,6,9,12,2,19};

		int size=arr.length;

		for(int i=0;i<size;i++){
			for(int j=i+1;j<size;j++){
				if(arr[i]==arr[j]){
					while(j<size-1){
						arr[j]=arr[j+1];
						j++;
					}
					size--;
				}
			}
		}

		for(int k=0;k<size;k++){
			System.out.print(arr[k]+",");
		}

	}

}
```

Prog_40. Write a program to check whether a number is even/odd without using / or % operator.

```
package JavaProgs;

import java.util.Scanner;

public class EvenOrOdd {

	public static void main(String[] args) {

		Scanner sc=new Scanner(System.in);
		System.out.println("Enter a number to check");
		int x=sc.nextInt();

		if((x & 1)==0)
			System.out.println("Even number");
		else
			System.out.println("Odd number");

	}

}
```

Prog_41. Write a program to find fibonacci series using recursion.

```
package JavaProgs;
```

```
public class RecFib {

	public static void main(String[] args) {
		RecFib r1=new RecFib();
		int x=r1.fibo(3);
		System.out.println(x);

	}

	public int fibo(int x){
		if(x==0) return 0;
		if(x==1||x==2){
			return 1;
		}

	return fibo(x-1)+fibo(x-2);

	}

}
```

Prog_42. Write a program to find length of a string without using length().

```
package JavaProgs;

public class StringLen {

	public static void main(String[] args) {

		 String s1 = "ptutorial";
	    int i = 0;
	    for(char c: s1.toCharArray()){
	        i++;
	     }
	   System.out.println("Length of String="+i);
	   }

}
```

Prog_43. Write a program to find uncommon elements in 2 array.

```
package JavaProgs;

public class UncommonElement {

	public static void main(String[] args) {

		int arr1[]={2,1,3,4,6,7,9};
		int arr2[]={6,1,0,14,26,7,9};

		for(int i=0;i<arr1.length;i++){
			boolean dist=false;
			for(int j=0;j<arr2.length;j++){
				if(arr1[i]==arr2[j]){
					dist=true;
					break;
				}
			}
			if(!dist){
				System.out.println(arr1[i]);
			}
		}

		for(int i=0;i<arr2.length;i++){
			boolean dist=false;
			for(int j=0;j<arr1.length;j++){
```

```
                                        if(arr2[i]==arr1[j]){
                                                dist=true;
                                                break;
                                        }
                                }
                                if(!dist){
                                        System.out.println(arr2[i]);
                                }
                        }
                }

}
```

Prog_44. Write a program to check if a number is binary.

```
package JavaProgs;

import java.util.Scanner;

public class CheckBinary {

        public static void main(String[] args) {

                System.out.println("enter a number to check");
                Scanner sc=new Scanner(System.in);
                int x=sc.nextInt();
                int temp=x;
                boolean isBinary=true;
                while(temp!=0){
                        int temp1=temp%10;
                        if(temp1>1){
                                isBinary=false;
                                break;
                        }
                        else{
                                temp=temp/10;
                        }

                }
                if(isBinary){
                        System.out.println("Given number is binary");
                }
                else
                        System.out.println("Not a binary number");

        }

}
```

Prog_45. Write a program in VBScript to store data in arr3 from arr1 and arr2 as (1,"a",2,"b",3,"c",4,"d") where arr1=Array(1,2,3,4) and arr2=Array("a","b","c","d").

```
arr1=Array(1,2,3,4)
arr2=Array("a","b","c","d")

dim arr3(7)
j=0
for i=0 to ubound(arr2)
        arr3(j)=arr1(i)
        arr3(j+1)=arr2(i)
        j=j+2

next

temp=""
```

```
for each item in arr3
        temp=temp&item&","

next

msgbox temp
```