some frequently asked technical interview related java programs for freshers:

1. Checking given number is Armstrong or not.
2. Checking given number is Prime number or not.
3. Checking given number is Palindrome or not.
4. Printing fibonacci Series.
5. Find Factorial of a number without using recursive function call.
6. Find Factorial of a number using recursive function call.
7. Find Reverse of a given number.
8. Sorting Array elements in ascending or descending order.
9. Find the sum of digits of a given number.
10. bubble sort based programs.
11. Pattern based programs.

Program-1:

```
//ArmstrongTest.java

import java.util.Scanner;

public class ArmstrongTest
{
 public static void main(String[] args){
 System.out.println("Enter a Number to check Armstrong");
       CheckArmstrongTest.checkArmstrong(new Scanner(System.in).nextInt());
 }
}

class CheckArmstrongTest
{
 public static void checkArmstrong(int number){ //153
    int no=number;
       int cube=0;
       while(number>0){ //153>0,15>0,1>0,0>0(false)
      //Calculate Cube of a Given Number
          int n=number%10; //153%10=3, 15%10=5,1%10=1
   System.out.println("n:"+n);
   cube=cube+n*n*n; //0+3*3*3=27,(3*3*3)+(5*5*5)=27+125=152,152+(1*1*1)=153
   System.out.println("cube:"+cube);
   number=number/10; //153/10=15,15/10=1,1/10=0
   System.out.println("number:"+number);
    }//while
      System.out.println("Cube:"+cube); //9
   System.out.println("Given Number:"+no); //153
    if(cube==no)
    System.out.println(no+" is Armstrong number");
```

```
      else
           System.out.println(no+" is not Armstrong number");
 }//method
}//class
```

Program-2:

```
//PrimeNumberTest.java

import java.util.Scanner;

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

    System.out.println("Enter a number to validate for Prime Number:");
         CalcPrimeNumber.calcPrimeNumber(new Scanner(System.in).nextInt());
 }
}

class CalcPrimeNumber
{
 public static void calcPrimeNumber(int number){

       //Primr Number validation logic
    if(number==1){                                          //Testcase1:- number=1
         System.out.println(number+" is not a Prime Number");
    }//if
    else{
    if(number==2 || (number%2)==1){                    //Testcase2:-
number=2,3,5,7,9,11.....
    System.out.println(number+"is a Prime Number");
    }
    else{
//Testcase3:-number=0,4,6,8,10,12.....
    System.out.println(number+"is not Prime Number");
    }
    }//else
 }//method
}//class
```

Program-3:

```
//PalindromeTest.java

import java.util.Scanner;
```

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

    PalindromeCheckTest test=new PalindromeCheckTest();
  System.out.println("Enter a number for checking Palindrome");
  test.checkPalindrome(new Scanner(System.in).nextInt());
 }
}

class PalindromeCheckTest
{
 public   void checkPalindrome(int number){   //123

       int no=number;
       int n=1,temp=0;
     //Palindrome validation logic
  //Reverse of a given number
 //System.out.println("Reverse of a given number:");
        while(number>0){          //121>0,12>0,1>0

     n=number%10;  //  n=121%10=1,12%10=2,1%10=1
 number=number/10;  //number=121/10=12,12/10=1,1/10=0
           temp=temp*10+n; //0*10+1=1,1*10+2=12,12*10+1=121
           //System.out.print(n); //321
 }//while
 if(temp==no)    //121==121
 System.out.println(no+" is palindrome");
 else
         System.out.println(no+" is not palindrome");
 }//method
}//class
```

Program-4:

```
//FibonacciTest.java

import java.util.Scanner;

public class  FibonacciTest
{
  public static void main(String[] args){
    System.out.println("Enter Iteration to print Fibonacci Series");
          FibonacciCheck.checkFibonacci(new Scanner(System.in).nextInt());
  }
```

```
}

class FibonacciCheck
{
 public static void checkFibonacci(int number){

        int first=0,second=1;
  int third=0;
        int i=1;
  System.out.print("Fibonacci Series upto: "+number+" is ");
  System.out.print(first+","+second+",");
  while(i<=number){
  third=first+second;
  System.out.print(third+",");
  first=second;
  second=third;
  ++i;
  }
 }
}
```

Program-5:

```
//calculate factorial of a number using loop and without using Recursive function call
//Factorial.java

import java.util.Scanner;

public class Factorial2
{
 public static void main(String[] args){
 System.out.println("Enter a Number to Calculate factorial");
 int fact=CalcFactorial.calcFactorial(new Scanner(System.in).nextInt());
 System.out.println("factorial of given number is:"+fact);
 }
}

class CalcFactorial
{
 //static int fact=1;
 public static int calcFactorial(int number){
        int fact=1;
      for(int i=number;i<=1;i--){
 fact=fact*i; //1*5,1*5*4,1*5*4*3,1*5*4*3*2,1*5*4*3*2*1

 }//for
```

```
    return fact;
}//method
}//class
```

Program-6:

```
//calculate factorial of a number using recursive function call
//Factorial.java

import java.util.Scanner;

public class Factorial
{
 public static void main(String[] args){
 System.out.println("Enter a Number to Calculate factorial");
 int fact=CalcFactorial.calcFactorial(new Scanner(System.in).nextInt());
 System.out.println("factorial of given number is:"+fact);
 }
}

class CalcFactorial
{
 static int fact;
 public static int calcFactorial(int number){

     //Factorial logic
   if(number==1){
   return 1;
   }
       fact=number*calcFactorial(number-1);  // fact=5*calcFactorial(4)
       return fact;
 }
}
```

Program-7:

```
//Reverse.java
import java.util.Scanner;

public class Reverse
{
  public static void main(String[]  args){
  System.out.println("Enter a number to reverse");
       ReverseTest.reverse(new Scanner(System.in).nextInt()); //123
  }
}
```

```
class ReverseTest
{
   public static void reverse(int number){ //123
   int no=number;
   int reverse=0;
   int num=0;
          while(number>0){  //123>0,12>0,1>0,0>0(false)
        num=number%10;  //num=123%10=3,2,1%10=1,
    reverse=reverse*10+num;  //0*10+3=3,3*10+2=32,32*10+1=321,
    number=number/10;  // number=number/10=123/10=12,12/10=1,1/10=0,
    }//while
    System.out.println("Reverse of "+no+" is: "+reverse);
  }//method
}//class
```

Program-8:

```
//SortArrayElement.java

import java.util.Scanner;

public class  SortArrayElement
{
   public static void main(String[] args){
  int size=0;
  System.out.println("Enter SIze of Array:");
        size=new Scanner(System.in).nextInt();
        System.out.println("Enter An array to sort:");
  String[] array=new String[size];
  //Input array elements
  for(int i=0;i<array.length;i++){
  System.out.println("Enter array"+(i+1)+"Elements");
  }//for
        SortArrayElementTest.sortArrayElements(array);
   }//main(-)
}//class

class SortArrayElementTest
{
   public static void sortArrayElements(String[] array){

   }
}
```

Program-9:

```
//SumOfDigits.java

import java.util.Scanner;

public class   SumOfDigits
{
    public static void main(String[] args){
    System.out.println("Enter a Number:");
          SumOfDigitsTest test=new SumOfDigitsTest();
    test.calcSumOfDigits(new Scanner(System.in).nextInt());
    }
}

class SumOfDigitsTest
{
 public void calcSumOfDigits(int number){ //123
       int no=number;
 int n=0;
       int sum=0;

 while(number>0){ //123>0,12>0,1>0,0>0(false)
 n=number%10; // 3,2,1%10=1,
           sum+=n; //0+3=3,3+2=5,5+1=6,
           number=number/10; //123/10=12,12/10=1,1/10=0,
    }//while
 System.out.println("Sum of Digits of "+no+" is: "+sum);
   }//method
}//class

Program-10:

//Bubblesort.java

public class  BubbleSort
{
    public static void main(String[] args){
    int[] array={10,40,60,30,20,50};
    System.out.println("Array before Sorting is:");
    for(int i=0;i<array.length;i++){   //i=0,1,2,3,4,5
    System.out.println(array[i]);
    }//for
         BubblesortTest.bubbleSort(array);
   System.out.println("After sorting array elements are:");
          for(int i=0;i<array.length;i++){
    System.out.println(array[i]);
```

```
   }//for
   }//main(-)
}

class BubblesortTest
{
   public static void bubbleSort(int[] array){
     //sorting logic
   int len=array.length;  //len=6
   int temp=0;

    for(int i=0;i<len;i++){            //i=0,1,2,3,4,5,
         for(int j=1;j<len;j++){
           if(array[j-1]>array[j]){
             temp=array[j-1];
   array[j-1]=array[j];
   array[j]=temp;
 }//if
         }//for
 }//for
 }//method
}//class
```

Program-11:

```
//Pattern1Test.java

public class Pattern1Test
{
   public static void main(String[] args){

          PatternPrint.printPattern();
   }//main(-)
}//class

class PatternPrint
{
  public static void printPattern(){

     //Pattern printing logic

        //for First Part
            //for Printing star in Rows
          for(int row=1;row<=5;row++){

   for(int space=row;space<=4;space++){
```

```
                System.out.print(" ");
    }//for
     //for Printing star in columns
              for(int col=1;col<(2*row);col++){
                      System.out.print("*");
              }//for
            System.out.println();
             }//for

       //for Second Part
    //for Printing star in Rows
    for(int row=4;row>=1;row--){
    //for printing spaces
          for(int space=5;space>row;space--){
    System.out.print(" ");
    }//for

    for(int col=1;col<(2*row);col++){
    System.out.print("*");
    }
    System.out.println();
    }//for

   }//method
}//class
```

Program-12:

```
//Pattern2Test.java

//Pattern1Test.java

public class Pattern2Test
{
    public static void main(String[] args){

            PatternPrint.printPattern();
    }//main(-)
}//class

class PatternPrint
{
   public static void printPattern(){
        //Pattern Printing Logics

 for(int row=5;row>=1;row--){
```

```
 //space printing logic
 for(int space=5;space>row;space--){
 System.out.print(" ");
 }//for

              //for star printing logic
 for(int col=1;col<=row;col++){
 System.out.print("*");
 }//for
           System.out.println();
 }//for
   }//method
}//class
```