100 Java Programs

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Contents

1.Simple Java Program

```
class HelloWorld
{
   public static void main(String args[])
   {
      System.out.println("Hello World by Technolamror");
   }
}
```

2.Print Integer in java

```
class Integers {
  public static void main(String[] arguments) {
    int c; //declaring a variable

  /* Using for loop to repeat instruction execution */

    for (c = 1; c <= 10; c++) {
      System.out.println(c);
    }
  }
}
```

3.Command Line Argument in java

```
class Arguments {
  public static void main(String[] args) {
    for (String t: args) {
      System.out.println(t);
    }
  }
}
```

---

4. How to get Using input using Scanner Program in java

```
import java.util.Scanner;

class GetInputFromUser
{
   public static void main(String args[])
   {
      int a;
      float b;
      String s;

      Scanner in = new Scanner(System.in);

      System.out.println("Enter a string");
      s = in.nextLine();
      System.out.println("You entered string "+s);

      System.out.println("Enter an integer");
      a = in.nextInt();
      System.out.println("You entered integer "+a);

      System.out.println("Enter a float");
      b = in.nextFloat();
      System.out.println("You entered float "+b);
   }
}
```

---

5. How to convert Fahrenheit to Celsius Program in java

```
import java.util.*;

class FahrenheitToCelsius {
  public static void main(String[] args) {
    float temperatue;
    Scanner in = new Scanner(System.in);

    System.out.println("Enter temperatue in Fahrenheit");
    temperatue = in.nextInt();

    temperatue = ((temperatue - 32)*5)/9;

    System.out.println("Temperatue in Celsius = " + temperatue);
  }
}
```

6. How to swap 2 no using 3rd variable Program in java

```
import java.util.Scanner;

class SwapNumbers
{
   public static void main(String args[])
   {
      int x, y, temp;
      System.out.println("Enter x and y");
      Scanner in = new Scanner(System.in);

      x = in.nextInt();
      y = in.nextInt();

      System.out.println("Before Swapping\nx = "+x+"\ny = "+y);

      temp = x;
      x = y;
      y = temp;

      System.out.println("After Swapping\nx = "+x+"\ny = "+y);
   }
}
```

7. How to swap 2 no without using 3rd variable Program in java

```
import java.util.Scanner;

class SwapNumbers
{
   public static void main(String args[])
   {
      int x, y;
      System.out.println("Enter x and y");
      Scanner in = new Scanner(System.in);

      x = in.nextInt();
      y = in.nextInt();

      System.out.println("Before Swapping\nx = "+x+"\ny = "+y);
```

```
        x = x + y;
        y = x - y;
        x = x - y;

        System.out.println("After Swapping\nx = "+x+"\ny = "+y);
    }
}
```

8.How to add two number Program in java

```
import java.util.Scanner;

class AddNumbers
{
   public static void main(String args[])
   {
      int x, y, z;
      System.out.println("Enter two integers to calculate their sum ");
      Scanner in = new Scanner(System.in);
      x = in.nextInt();
      y = in.nextInt();
      z = x + y;
      System.out.println("Sum of entered integers = "+z);
   }
}
//For Large Number
import java.util.Scanner;
import java.math.BigInteger;

class AddingLargeNumbers {
  public static void main(String[] args) {
    String number1, number2;
    Scanner in = new Scanner(System.in);

    System.out.println("Enter first large number");
    number1 = in.nextLine();

    System.out.println("Enter second large number");
    number2 = in.nextLine();

    BigInteger first  = new BigInteger(number1);
    BigInteger second = new BigInteger(number2);
    BigInteger sum;

    sum = first.add(second);

    System.out.println("Result of addition = " + sum);
  }
```

```
}
```

9.Find Largest no in java Program

```
import java.util.Scanner;

class LargestOfThreeNumbers
{
   public static void main(String args[])
   {
      int x, y, z;
      System.out.println("Enter three integers ");
      Scanner in = new Scanner(System.in);

      x = in.nextInt();
      y = in.nextInt();
      z = in.nextInt();

      if ( x > y && x > z )
         System.out.println("First number is largest.");
      else if ( y > x && y > z )
         System.out.println("Second number is largest.");
      else if ( z > x && z > y )
         System.out.println("Third number is largest.");
      else
         System.out.println("Entered numbers are not distinct.");
   }
}
```

10. If Else clause in java

```
class Condition {
  public static void main(String[] args) {
    boolean learning = true;

    if (learning) {
      System.out.println("Java programmer");
    }
    else {
      System.out.println("What are you doing here?");
    }
  }
}
```

11. If Else clause in java- Program 2

```
// If else in Java code
import java.util.Scanner;

class IfElse {
  public static void main(String[] args) {
    int marksObtained, passingMarks;

    passingMarks = 40;

    Scanner input = new Scanner(System.in);

    System.out.println("Input marks scored by you");

    marksObtained = input.nextInt();

    if (marksObtained >= passingMarks) {
      System.out.println("You passed the exam.");
    }
    else {
      System.out.println("Unfortunately you failed to pass the exam.");
    }
  }
}
```

12. Nested If Else clause in java

```
import java.util.Scanner;

class NestedIfElse {
  public static void main(String[] args) {
    int marksObtained, passingMarks;
    char grade;

    passingMarks = 40;

    Scanner input = new Scanner(System.in);

    System.out.println("Input marks scored by you");

    marksObtained = input.nextInt();

    if (marksObtained >= passingMarks) {

      if (marksObtained > 90)
        grade = 'A';
```

```
      else if (marksObtained > 75)
        grade = 'B';
      else if (marksObtained > 60)
        grade = 'C';
      else
        grade = 'D';

      System.out.println("You passed the exam and your grade is " + grade);
    }
    else {
      grade = 'F';
      System.out.println("You failed and your grade is " + grade);
    }
  }
}
```

---

13. How to check Odd and Even Number in java.

```
import java.util.Scanner;

class OddOrEven
{
   public static void main(String args[])
   {
      int x;
      System.out.println("Enter an integer to check if it is odd or even ");
      Scanner in = new Scanner(System.in);
      x = in.nextInt();

      if ( x % 2 == 0 )
         System.out.println("You entered an even number.");
      else
         System.out.println("You entered an odd number.");
   }
}
```

---

14. Find factorial for given no Program in Java

```
import java.util.Scanner;

class Factorial
{
   public static void main(String args[])
   {
      int n, c, fact = 1;

      System.out.println("Enter an integer to calculate it's factorial");
      Scanner in = new Scanner(System.in);

      n = in.nextInt();
```

```
        if ( n < 0 )
           System.out.println("Number should be non-negative.");
        else
        {
           for ( c = 1 ; c <= n ; c++ )
              fact = fact*c;

           System.out.println("Factorial of "+n+" is = "+fact);
        }
    }
}
```

```
//Calculate factorial for large No
import java.util.Scanner;
import java.math.BigInteger;

class BigFactorial
{
  public static void main(String args[])
  {
    int n, c;
    BigInteger inc = new BigInteger("1");
    BigInteger fact = new BigInteger("1");

    Scanner input = new Scanner(System.in);

    System.out.println("Input an integer");
    n = input.nextInt();

    for (c = 1; c <= n; c++) {
      fact = fact.multiply(inc);
      inc = inc.add(BigInteger.ONE);
    }

    System.out.println(n + "! = " + fact);
  }
}
```

---

15. How to complete 2 string in Java program

```
import java.util.Scanner;

class CompareStrings
{
   public static void main(String args[])
   {
      String s1, s2;
      Scanner in = new Scanner(System.in);

      System.out.println("Enter the first string");
      s1 = in.nextLine();
```

```
        System.out.println("Enter the second string");
        s2 = in.nextLine();

        if ( s1.compareTo(s2) > 0 )
           System.out.println("First string is greater than second.");
        else if ( s1.compareTo(s2) < 0 )
           System.out.println("First string is smaller than second.");
        else
           System.out.println("Both strings are equal.");
    }
}
```

---

16. Simple For Loop Program in Java

```
//Java for loop program
class ForLoop {
  public static void main(String[] args) {
    int c;

    for (c = 1; c <= 10; c++) {
      System.out.println(c);
    }
  }
}
```

---

17. Print Star console using Loop

```
class Stars {
  public static void main(String[] args) {
    int row, numberOfStars;

    for (row = 1; row <= 10; row++) {
      for(numberOfStars = 1; numberOfStars <= row; numberOfStars++) {
        System.out.print("*");
      }
      System.out.println(); // Go to next line
    }
  }
}
```

```
<terminated> scan [Java Application] C:\Program Files\Java\jre1.8.0_91\bin\javaw.exe (Jan 8, 2017, 2:35:46 PM)
Input an integer
2
You entered 2
Input an integer
1
You entered 1
Input an integer
6
You entered 6
Input an integer
1
You entered 1
Input an integer
0
Out of loop
```

18. Print Star console using Loop

```
class Stars {
  public static void main(String[] args) {
    int row, numberOfStars;

    for (row = 1; row <= 10; row++) {
      for(numberOfStars = 1; numberOfStars <= row; numberOfStars++) {
        System.out.print("*");
      }
      System.out.println(); // Go to next line
    }
  }
}
```

19. While loop Program in java

```
import java.util.Scanner;

class WhileLoop {
  public static void main(String[] args) {
    int n;

    Scanner input = new Scanner(System.in);
    System.out.println("Input an integer");

    while ((n = input.nextInt()) != 0) {
      System.out.println("You entered " + n);
      System.out.println("Input an integer");
    }

    System.out.println("Out of loop");
  }
```

```
}
```

---

20. Print Reverse number in java program

```
import java.util.Scanner;

class ReverseNumber
{
   public static void main(String args[])
   {
      int n, reverse = 0;

      System.out.println("Enter the number to reverse");
      Scanner in = new Scanner(System.in);
      n = in.nextInt();

      while( n != 0 )
      {
          reverse = reverse * 10;
          reverse = reverse + n%10;
          n = n/10;
      }

      System.out.println("Reverse of entered number is "+reverse);
   }
}
```

---

21. While loop using break Program in java

```
import java.util.Scanner;

class BreakWhileLoop {
  public static void main(String[] args) {
    int n;

    Scanner input = new Scanner(System.in);

    while (true) {
      System.out.println("Input an integer");
      n = input.nextInt();

      if (n == 0) {
        break;
      }
      System.out.println("You entered " + n);
    }
  }
}
```

22. While loop using break and continue Program in java

```
import java.util.Scanner;

class BreakContinueWhileLoop {
  public static void main(String[] args) {
    int n;

    Scanner input = new Scanner(System.in);

    while (true) {
      System.out.println("Input an integer");
      n = input.nextInt();

      if (n != 0) {
        System.out.println("You entered " + n);
        continue;
      }
      else {
        break;
      }
    }
  }
}
```

23. Print all alphabet using for loop Program in java

```
class Alphabets
{
   public static void main(String args[])
   {
      char ch;

      for( ch = 'a' ; ch <= 'z' ; ch++ )
         System.out.println(ch);
   }
}
```

24. Enhance loop in java Program

```
class EnhancedForLoop {
  public static void main(String[] args) {
    int primes[] = { 2, 3, 5, 7, 11, 13, 17, 19, 23, 29};

    for (int t: primes) {
      System.out.println(t);
    }
  }
}
```

//For String

```
class EnhancedForLoop {
  public static void main(String[] args) {
    String languages[] = { "C", "C++", "Java", "Python", "Ruby"};

    for (String sample: languages) {
      System.out.println(sample);
    }
  }
}
```

---

25. Print Multiplication table Program in java

```
import java.util.Scanner;

class MultiplicationTable
{
   public static void main(String args[])
   {
      int n, c;
      System.out.println("Enter an integer to print it's multiplication
table");
      Scanner in = new Scanner(System.in);
      n = in.nextInt();
      System.out.println("Multiplication table of "+n+" is :-");

      for ( c = 1 ; c <= 10 ; c++ )
         System.out.println(n+"*"+c+" = "+(n*c));
   }
}


//For Any Number
import java.util.Scanner;

class Tables
{
  public static void main(String args[])
  {
    int a, b, c, d;
```

```
    System.out.println("Enter range of numbers to print their multiplication
table");
    Scanner in = new Scanner(System.in);

    a = in.nextInt();
    b = in.nextInt();

    for (c = a; c <= b; c++) {
      System.out.println("Multiplication table of "+c);

      for (d = 1; d <= 10; d++) {
         System.out.println(c+"*"+d+" = "+(c*d));
      }
    }
  }
}
```

---

26. Print prime no Program in java

```
import java.util.*;

class PrimeNumbers
{
   public static void main(String args[])
   {
      int n, status = 1, num = 3;

      Scanner in = new Scanner(System.in);
      System.out.println("Enter the number of prime numbers you want");
      n = in.nextInt();

      if (n >= 1)
      {
         System.out.println("First "+n+" prime numbers are :-");
         System.out.println(2);
      }

      for ( int count = 2 ; count <=n ;  )
      {
         for ( int j = 2 ; j <= Math.sqrt(num) ; j++ )
         {
            if ( num%j == 0 )
            {
               status = 0;
               break;
            }
         }
         if ( status != 0 )
         {
            System.out.println(num);
            count++;
         }
```

```
            status = 1;
            num++;
        }
    }
}
```

---

27. Check no is Armstrong or not in java Program

```
import java.util.Scanner;

class ArmstrongNumber
{
   public static void main(String args[])
   {
      int n, sum = 0, temp, remainder, digits = 0;

      Scanner in = new Scanner(System.in);
      System.out.println("Input a number to check if it is an Armstrong
number");
      n = in.nextInt();

      temp = n;

      // Count number of digits

      while (temp != 0) {
         digits++;
         temp = temp/10;
      }

      temp = n;

      while (temp != 0) {
         remainder = temp%10;
         sum = sum + power(remainder, digits);
         temp = temp/10;
      }

      if (n == sum)
         System.out.println(n + " is an Armstrong number.");
      else
         System.out.println(n + " is not an Armstrong number.");
   }

   static int power(int n, int r) {
      int c, p = 1;

      for (c = 1; c <= r; c++)
         p = p*n;

      return p;
```

```
    }
}
```

---

28. Print Floyd's Triangle in java Program

```
import java.util.Scanner;

class FloydTriangle
{
   public static void main(String args[])
   {
      int n, num = 1, c, d;
      Scanner in = new Scanner(System.in);

      System.out.println("Enter the number of rows of floyd's triangle you
want");
      n = in.nextInt();

      System.out.println("Floyd's triangle :-");

      for ( c = 1 ; c <= n ; c++ )
      {
         for ( d = 1 ; d <= c ; d++ )
         {
            System.out.print(num+" ");
            num++;
         }

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

---

29. Find All substring of string in java Program

```
import java.util.Scanner;

class SubstringsOfAString
{
   public static void main(String args[])
   {
      String string, sub;
      int i, c, length;

      Scanner in = new Scanner(System.in);
      System.out.println("Enter a string to print it's all substrings");
      string  = in.nextLine();

      length = string.length();
```

```
        System.out.println("Substrings of \""+string+"\" are :-");

        for( c = 0 ; c < length ; c++ )
        {
           for( i = 1 ; i <= length - c ; i++ )
           {
              sub = string.substring(c, c+i);
              System.out.println(sub);
           }
        }
    }
}
```

---

30. Print reverse string in java Program

```
import java.util.*;

class ReverseString
{
   public static void main(String args[])
   {
      String original, reverse = "";
      Scanner in = new Scanner(System.in);

      System.out.println("Enter a string to reverse");
      original = in.nextLine();

      int length = original.length();

      for ( int i = length - 1 ; i >= 0 ; i-- )
         reverse = reverse + original.charAt(i);

      System.out.println("Reverse of entered string is: "+reverse);
   }
}
//Using Internal java Methog
class InvertString
{
   public static void main(String args[])
   {
      StringBuffer a = new StringBuffer("Java programming is fun");
      System.out.println(a.reverse());
   }
}
```

---

31. Check Given No is palindrome or Not in java Program

```
import java.util.*;

class Palindrome
{
   public static void main(String args[])
   {
      String original, reverse = "";
      Scanner in = new Scanner(System.in);

      System.out.println("Enter a string to check if it is a palindrome");
      original = in.nextLine();

      int length = original.length();

      for ( int i = length - 1; i >= 0; i-- )
         reverse = reverse + original.charAt(i);

      if (original.equals(reverse))
         System.out.println("Entered string is a palindrome.");
      else
         System.out.println("Entered string is not a palindrome.");

   }
}
//Another Method
import java.util.*;

class Palindrome
{
  public static void main(String args[])
  {
    String inputString;
    Scanner in = new Scanner(System.in);

    System.out.println("Input a string");
    inputString = in.nextLine();

    int length  = inputString.length();
    int i, begin, end, middle;

    begin  = 0;
    end    = length - 1;
    middle = (begin + end)/2;

    for (i = begin; i <= middle; i++) {
      if (inputString.charAt(begin) == inputString.charAt(end)) {
        begin++;
        end--;
      }
      else {
        break;
      }
    }
```

```
    if (i == middle + 1) {
      System.out.println("Palindrome");
    }
    else {
      System.out.println("Not a palindrome");
    }
  }
}
```

---

32. How to add two matrix in java Program

```
import java.util.Scanner;

class AddTwoMatrix
{
   public static void main(String args[])
   {
      int m, n, c, d;
      Scanner in = new Scanner(System.in);

      System.out.println("Enter the number of rows and columns of matrix");
      m = in.nextInt();
      n  = in.nextInt();

      int first[][] = new int[m][n];
      int second[][] = new int[m][n];
      int sum[][] = new int[m][n];

      System.out.println("Enter the elements of first matrix");

      for (  c = 0 ; c < m ; c++ )
         for ( d = 0 ; d < n ; d++ )
            first[c][d] = in.nextInt();

      System.out.println("Enter the elements of second matrix");

      for ( c = 0 ; c < m ; c++ )
         for ( d = 0 ; d < n ; d++ )
            second[c][d] = in.nextInt();

      for ( c = 0 ; c < m ; c++ )
         for ( d = 0 ; d < n ; d++ )
             sum[c][d] = first[c][d] + second[c][d];  //replace '+' with '-'
to subtract matrices

      System.out.println("Sum of entered matrices:-");

      for ( c = 0 ; c < m ; c++ )
      {
         for ( d = 0 ; d < n ; d++ )
            System.out.print(sum[c][d]+"\t");

         System.out.println();
```

```
        }
    }
}
```

33. How to multiply two matrix in java Program

```
import java.util.Scanner;

class MatrixMultiplication
{
   public static void main(String args[])
   {
      int m, n, p, q, sum = 0, c, d, k;

      Scanner in = new Scanner(System.in);
      System.out.println("Enter the number of rows and columns of first
matrix");
      m = in.nextInt();
      n = in.nextInt();

      int first[][] = new int[m][n];

      System.out.println("Enter the elements of first matrix");

      for ( c = 0 ; c < m ; c++ )
         for ( d = 0 ; d < n ; d++ )
            first[c][d] = in.nextInt();

      System.out.println("Enter the number of rows and columns of second
matrix");
      p = in.nextInt();
      q = in.nextInt();

      if ( n != p )
         System.out.println("Matrices with entered orders can't be multiplied
with each other.");
      else
      {
         int second[][] = new int[p][q];
         int multiply[][] = new int[m][q];

         System.out.println("Enter the elements of second matrix");

         for ( c = 0 ; c < p ; c++ )
            for ( d = 0 ; d < q ; d++ )
               second[c][d] = in.nextInt();

         for ( c = 0 ; c < m ; c++ )
         {
            for ( d = 0 ; d < q ; d++ )
            {
               for ( k = 0 ; k < p ; k++ )
               {
```

```
                    sum = sum + first[c][k]*second[k][d];
                }

                multiply[c][d] = sum;
                sum = 0;
            }
        }

        System.out.println("Product of entered matrices:-");

        for ( c = 0 ; c < m ; c++ )
        {
            for ( d = 0 ; d < q ; d++ )
                System.out.print(multiply[c][d]+"\t");

            System.out.print("\n");
        }
    }
}
```

34. How to get transpose of matrix in java Program

```
import java.util.Scanner;

class TransposeAMatrix
{
   public static void main(String args[])
   {
      int m, n, c, d;

      Scanner in = new Scanner(System.in);
      System.out.println("Enter the number of rows and columns of matrix");
      m = in.nextInt();
      n = in.nextInt();

      int matrix[][] = new int[m][n];

      System.out.println("Enter the elements of matrix");

      for ( c = 0 ; c < m ; c++ )
         for ( d = 0 ; d < n ; d++ )
            matrix[c][d] = in.nextInt();

      int transpose[][] = new int[n][m];

      for ( c = 0 ; c < m ; c++ )
      {
         for ( d = 0 ; d < n ; d++ )
            transpose[d][c] = matrix[c][d];
      }
```

```
        System.out.println("Transpose of entered matrix:-");

        for ( c = 0 ; c < n ; c++ )
        {
           for ( d = 0 ; d < m ; d++ )
                 System.out.print(transpose[c][d]+"\t");

           System.out.print("\n");
        }
     }
}
```

35. How to compare 2 string in java Program

```
public class LastIndexOfExample{
public static void main(String args[]){
String s1="hello";
String s2="hello";
String s3="meklo";
String s4="hemlo";
System.out.println(s1.compareTo(s2));
System.out.println(s1.compareTo(s3));
System.out.println(s1.compareTo(s4));
}}
```

36. How to string width with specific char in java Program

```
class StringEndwith{
public static void main(String args[]){
String s1="java by TechnoLamror";
System.out.println(s1.endsWith("r"));  //true
System.out.println(s1.endsWith("Lamror"));  //true
System.out.println(s1.endsWith("lamror"));//false
}
}
```

37. How to use indesOf() in java Program

```
public class IndexOfExample{
public static void main(String args[]){
String s1="this is index of example";
//passing substring
int index1=s1.indexOf("is");//returns the index of is substring
int index2=s1.indexOf("index");//returns the index of index substring
System.out.println(index1+"  "+index2);//2 8
```

```
//passing substring with from index
int index3=s1.indexOf("is",4);//returns the index of is substring after 4th index
System.out.println(index3);//5 i.e. the index of another is

//passing char value
int index4=s1.indexOf('s');//returns the index of s char value
System.out.println(index4);//3
}}
```

38. How to replace string with another string in java Program

```
public class ReplaceAllExample2{
public static void main(String args[]){
String s1="My name is Rajendra. My name is lamror. My name is Technolamror.";
String replaceString=s1.replaceAll("is","was");//replaces all occurrences of "is" to
"was"
System.out.println(replaceString);
}}
```

39. How to split string in java Program

```
public class SplitExample{
public static void main(String args[]){
String s1="java string split method by Technolamror";
String[] words=s1.split("\\s");//splits the string based on whitespace
//using java foreach loop to print elements of string array
for(String w:words){
System.out.println(w);
}
}}
```

40. How to remove space in string both end in java Program

```
public class StringTrimExample{
public static void main(String args[]){
String s1="  hello string   ";
System.out.println(s1+"Technolamror");//without trim()
System.out.println(s1.trim()+"Technolamror");//with trim()
}}
```

41. How to convert all char in string lower case in java Program

```
public class StringLowerExample{
public static void main(String args[]){
String s1="TECHNOLAMROR by Rajendralamror HELLO stRIng";
String s1lower=s1.toLowerCase();
```

```
System.out.println(s1lower);
}}
```

42. How to create method in java Program

```
class Methods {

  // Constructor method

  Methods() {
    System.out.println("Constructor method is called when an object of it's
class is created");
  }

  // Main method where program execution begins

  public static void main(String[] args) {
    staticMethod();
    Methods object = new Methods();
    object.nonStaticMethod();
  }

  // Static method

  static void staticMethod() {
    System.out.println("Static method can be called without creating
object");
  }

  // Non static method

  void nonStaticMethod() {
    System.out.println("Non static method must be called by creating an
object");
  }
}
```

43. Find Length, Concatenate and Replace String in Java Program

```
class StringMethods
{
  public static void main(String args[])
  {
    int n;
    String s = "Java programming", t = "", u = "";

    System.out.println(s);

    // Find length of string
```

```
    n = s.length();
    System.out.println("Number of characters = " + n);

    // Replace characters in string

    t = s.replace("Java", "C++");
    System.out.println(s);
    System.out.println(t);

    // Concatenating string with another string

    u = s.concat(" is fun");
    System.out.println(s);
    System.out.println(u);
  }
}
```

---

44. How Static block working in java Program

```
class StaticBlock {
  public static void main(String[] args) {
    System.out.println("Main method is executed.");
  }

  static {
    System.out.println("Static block is executed before main method.");
  }
}
//Static Block Application …. We need to open Program in speciif window
class StaticBlock {
  public static void main(String[] args) {
    System.out.println("You are using Windows_NT operating system.");
  }

  static {
    String os = System.getenv("OS");
    if (os.equals("Windows_NT") != true) {
      System.exit(1);
    }
  }
}
```

---

45. Difference between Static and Instance method working in java Program

```
class Difference {

  public static void main(String[] args) {
    display();  //calling without object
```

```
    Difference t = new Difference();
    t.show();  //calling using object
  }

  static void display() {
    System.out.println("Programming is amazing.");
  }

  void show(){
    System.out.println("Java is awesome.");
  }
}
```

---

46. How to create Multiple class in java Program

```
class Computer {
  Computer() {
    System.out.println("Constructor of Computer class.");
  }

  void computer_method() {
    System.out.println("Power gone! Shut down your PC soon...");
  }

  public static void main(String[] args) {
    Computer my = new Computer();
    Laptop your = new Laptop();

    my.computer_method();
    your.laptop_method();
  }
}

class Laptop {
  Laptop() {
    System.out.println("Constructor of Laptop class.");
  }

  void laptop_method() {
    System.out.println("99% Battery available.");
  }
}
```

---

47. How to create constructor in java Program

```
class Programming {
  //constructor method
  Programming() {
    System.out.println("Constructor method called.");
  }
```

```
  public static void main(String[] args) {
    Programming object = new Programming(); //creating object
  }
}
```

---

48. How to create constructor overloading in java Program

```
class Language {
  String name;

  Language() {
    System.out.println("Constructor method called.");
  }

  Language(String t) {
    name = t;
  }

  public static void main(String[] args) {
    Language cpp  = new Language();
    Language java = new Language("Java");

    cpp.setName("C++");

    java.getName();
    cpp.getName();
  }

  void setName(String t) {
    name = t;
  }

  void getName() {
    System.out.println("Language name: " + name);
  }
}
```

---

49. Exception Handling java Program

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

  int a, b, result;

  Scanner input = new Scanner(System.in);
  System.out.println("Input two integers");
```

```
    a = input.nextInt();
    b = input.nextInt();

    // try block

    try {
      result  = a / b;
      System.out.println("Result = " + result);
    }

    // catch block

    catch (ArithmeticException e) {
      System.out.println("Exception caught: Division by zero.");
    }
    }
}
```

---

50. How to throw exception in java Program

```
public class TestThrow1{
   static void validate(int age){
     if(age<18)
      throw new ArithmeticException("not valid");
     else
      System.out.println("welcome to vote on Technolamror");
   }
   public static void main(String args[]){
      validate(13);
      System.out.println("rest of the code...");
  }
}
```

---

51. Advantage of Finally in Exception Handling java Program

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

    try {
      long data[] = new long[1000000000];
    }
    catch (Exception e) {
      System.out.println(e);
    }

    finally {
      System.out.println("finally block will execute always.");
    }
  }
}
```

52. How to create Interface in java Program

```
interface Info {
  static final String language = "Java";
  public void display();
}

class Simple implements Info {
  public static void main(String []args) {
    Simple obj = new Simple();
    obj.display();
  }

  // Defining method declared in interface

  public void display() {
    System.out.println(language + " is awesome");
  }
}
```

53. How to print date and time in java Program

```
public class SQLDateExample {
    public static void main(String[] args) {
        long millis=System.currentTimeMillis();
        java.sql.Date date=new java.sql.Date(millis);
        System.out.println(date);
    }
}
/// Another Way
import java.util.*;

class GetCurrentDateAndTime
{
   public static void main(String args[])
   {
      int day, month, year;
      int second, minute, hour;
      GregorianCalendar date = new GregorianCalendar();

      day = date.get(Calendar.DAY_OF_MONTH);
      month = date.get(Calendar.MONTH);
      year = date.get(Calendar.YEAR);

      second = date.get(Calendar.SECOND);
      minute = date.get(Calendar.MINUTE);
      hour = date.get(Calendar.HOUR);
```

```
        System.out.println("Current date is  "+day+"/"+(month+1)+"/"+year);
        System.out.println("Current time is  "+hour+" : "+minute+" : "+second);
    }
}
```

54. How to SQL Date in java Program

```
import java.sql.Date;
public class StringToSQLDateExample {
public static void main(String[] args) {
    String str="2015-03-31";
    Date date=Date.valueOf(str);//converting string into sql date
    System.out.println(date);
}
}
```

55. How to Date format in java Program

```
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.Locale;
public class SimpleDateFormatExample2 {
public static void main(String[] args) {
    Date date = new Date();
    System.out.println("Date formate chnage by Technolamror ");
    SimpleDateFormat formatter = new SimpleDateFormat("MM/dd/yyyy");
    String strDate = formatter.format(date);
    System.out.println("Date Format with MM/dd/yyyy : "+strDate);

    formatter = new SimpleDateFormat("dd-M-yyyy hh:mm:ss");
    strDate = formatter.format(date);
    System.out.println("Date Format with dd-M-yyyy hh:mm:ss : "+strDate);

    formatter = new SimpleDateFormat("dd MMMM yyyy");
    strDate = formatter.format(date);
    System.out.println("Date Format with dd MMMM yyyy : "+strDate);

    formatter = new SimpleDateFormat("dd MMMM yyyy zzzz");
    strDate = formatter.format(date);
    System.out.println("Date Format with dd MMMM yyyy zzzz : "+strDate);

    formatter = new SimpleDateFormat("E, dd MMM yyyy HH:mm:ss z");
    strDate = formatter.format(date);
    System.out.println("Date Format with E, dd MMM yyyy HH:mm:ss z : "+strDate);
}
}
```

56. How to Generate random number in java Program

```
import java.util.*;

class RandomNumbers {
  public static void main(String[] args) {
    int c;
    Random t = new Random();

    // random integers in [0, 100]

    for (c = 1; c <= 10; c++) {
      System.out.println(t.nextInt(100));
    }
  }
}
```

---

57. How perform garbage collection in java Program

```
import java.util.*;

class GarbageCollection
{
   public static void main(String s[]) throws Exception
   {
      Runtime rs =  Runtime.getRuntime();
      System.out.println("Free memory in JVM before Garbage Collection =
"+rs.freeMemory());
      rs.gc();
      System.out.println("Free memory in JVM after Garbage Collection =
"+rs.freeMemory());
   }
}
```

---

58. How to get own IP Address in java Program

```
import java.net.InetAddress;

class IPAddress
{
   public static void main(String args[]) throws Exception
   {
      System.out.println(InetAddress.getLocalHost());
   }
}
```

59. How to open notepad in java Program

```
import java.util.*;
import java.io.*;

class Notepad {
  public static void main(String[] args) {
    Runtime rs = Runtime.getRuntime();

    try {
      rs.exec("notepad");
    }
    catch (IOException e) {
      System.out.println(e);
    }
  }
}
```

60. Leaner search Program in java

```
import java.util.Scanner;

class LinearSearch
{
  public static void main(String args[])
  {
    int c, n, search, array[];

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

    for (c = 0; c < n; c++)
    {
      if (array[c] == search)      /* Searching element is present */
      {
         System.out.println(search + " is present at location " + (c + 1) +
".");
          break;
      }
```

```
    }
    if (c == n)  /* Searching element is absent */
       System.out.println(search + " is not present in array.");
   }
}
```

---

61. Binary search Program in java

```
import java.util.Scanner;

class BinarySearch
{
  public static void main(String args[])
  {
    int c, first, last, middle, n, search, array[];

    Scanner in = new Scanner(System.in);
    System.out.println("Enter number of elements");
    n = in.nextInt();
    array = new int[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;
      else if ( 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");
  }
}
```

62. Bubble sort Program in java

```
import java.util.Scanner;

class BubbleSort {
  public static void main(String []args) {
    int n, c, d, swap;
    Scanner in = new Scanner(System.in);

    System.out.println("Input number of integers to sort");
    n = in.nextInt();

    int array[] = new int[n];

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

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

    for (c = 0; c < ( n - 1 ); c++) {
      for (d = 0; d < n - c - 1; d++) {
        if (array[d] > array[d+1]) /* For descending order use < */
        {
          swap       = array[d];
          array[d]   = array[d+1];
          array[d+1] = swap;
        }
      }
    }

    System.out.println("Sorted list of numbers");

    for (c = 0; c < n; c++)
      System.out.println(array[c]);
  }
}
```

63. How to connect Database using java Program

```
import java.sql.*;
class OracleCon{
public static void main(String args[]){
try{
//step1 load the driver class
Class.forName("oracle.jdbc.driver.OracleDriver");
//step2 create  the connection object
```

```
Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracl
e");
//step3 create the statement object
Statement stmt=con.createStatement();
//step4 execute query
ResultSet rs=stmt.executeQuery("select * from emp");
while(rs.next())
System.out.println(rs.getInt(1)+"  "+rs.getString(2)+"  "+rs.getString(3));
//step5 close the connection object
con.close();
}catch(Exception e){ System.out.println(e);}

}
}
```

64. How to insert data in table using JDBC in java Program

```
import java.sql.*;
class InsertPrepared{
public static void main(String args[]){
try{
Class.forName("oracle.jdbc.driver.OracleDriver");
Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracl
e");
PreparedStatement stmt=con.prepareStatement("insert into Emp values(?,?)");
stmt.setInt(1,101);//1 specifies the first parameter in the query
stmt.setString(2,"Ratan");
int i=stmt.executeUpdate();
System.out.println(i+" records inserted");
con.close();
}catch(Exception e){ System.out.println(e);}

}
}
```

65. How to insert image using JDBC in java Program

```
import java.sql.*;
import java.io.*;
public class InsertImage {
public static void main(String[] args) {
try{
Class.forName("oracle.jdbc.driver.OracleDriver");
Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");
PreparedStatement ps=con.prepareStatement("insert into imgtable values(?,?)");
```

```
ps.setString(1,"Technolamror");
FileInputStream fin=new FileInputStream("d:\\g.jpg");
ps.setBinaryStream(2,fin,fin.available());
int i=ps.executeUpdate();
System.out.println(i+" records affected");
con.close();
}catch (Exception e) {e.printStackTrace();}
}
}
```

66. How to execute Procedure in JDBC in java Program

```
import java.sql.*;
public class Proc {
public static void main(String[] args) throws Exception{
Class.forName("oracle.jdbc.driver.OracleDriver");
Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","oracl
e");
CallableStatement stmt=con.prepareCall("{call insertR(?,?)}");
stmt.setInt(1,1011);
stmt.setString(2,"Amit");
stmt.execute();
System.out.println("success");
}
}
```

67. How to check Regular expression in java Program

```
import java.util.regex.*;
public class RegexExample1{
public static void main(String args[]){
//1st way
Pattern p = Pattern.compile(".s");//. represents single character
Matcher m = p.matcher("as");
boolean b = m.matches();
//2nd way
boolean b2=Pattern.compile(".s").matcher("as").matches();
//3rd way
boolean b3 = Pattern.matches(".s", "as");
System.out.println(b+" "+b2+" "+b3);
}}
```

68. How to create Multithreading program in java

```
class Multi extends Thread{
public void run(){
System.out.println("thread is running...");
}
```

```
public static void main(String args[]){
Multi t1=new Multi();
t1.start();
 }
}
```

69. How to join thread in java program

```
class TestJoinMethod1 extends Thread{
 public void run(){
  for(int i=1;i<=5;i++){
   try{
    Thread.sleep(500);
   }catch(Exception e){System.out.println(e);}
  System.out.println(i);
  }
 }
public static void main(String args[]){
 TestJoinMethod1 t1=new TestJoinMethod1();
 TestJoinMethod1 t2=new TestJoinMethod1();
 TestJoinMethod1 t3=new TestJoinMethod1();
 t1.start();
 try{
  t1.join();
 }catch(Exception e){System.out.println(e);}

 t2.start();
 t3.start();
 }
}
```

70. How to write data in text file using java program

```
import java.io.FileOutputStream;
public class FileOutputStreamExample {
    public static void main(String args[]){
           try{
             FileOutputStream fout=new FileOutputStream("D:\\testout.txt");
             fout.write(65);
             fout.close();
             System.out.println("success.. by Technolamror.");
            }catch(Exception e){System.out.println(e);}
      }
}
```

71. How to read data from text file using java program

```
import java.io.FileInputStream;
public class DataStreamExample {
```

```
public static void main(String args[]){
     try{
       FileInputStream fin=new FileInputStream("D:\\Technolamror.txt");
       int i=fin.read();
       System.out.print((char)i);

       fin.close();
     }catch(Exception e){System.out.println(e);}
    }
   }
```

72. How to get URL of site using java Programs

```
import java.io.*;
import java.net.*;
public class URLDemo{
public static void main(String[] args){
try{
URL url=new URL("http://www.technolamror.com/java");

System.out.println("Protocol: "+url.getProtocol());
System.out.println("Host Name: "+url.getHost());
System.out.println("Port Number: "+url.getPort());
System.out.println("File Name: "+url.getFile());

}catch(Exception e){System.out.println(e);}
}
}
```

73. How to get IP address from site URL using java program

```
import java.io.*;
import java.net.*;
public class InetDemo{
public static void main(String[] args){
try{
InetAddress ip=InetAddress.getByName("www.Technolamror.com");

System.out.println("Host Name: "+ip.getHostName());
System.out.println("IP Address: "+ip.getHostAddress());
}catch(Exception e){System.out.println(e);}
}
}
```

74. How to create AWT program in java

```
import java.awt.*;
class First extends Frame{
First(){
Button b=new Button("click me");
b.setBounds(30,100,80,30);// setting button position
```

```
add(b);//adding button into frame
setSize(300,300);//frame size 300 width and 300 height
setLayout(null);//no layout manager
setVisible(true);//now frame will be visible, by default not visible
}
public static void main(String args[]){
First f=new First();
}}
```

75. How to add lable in AWT program in java

```
import java.awt.*;
class LabelExample{
public static void main(String args[]){
    Frame f= new Frame("Label Example by Technolamror");
    Label l1,l2;
    l1=new Label("First Label.");
    l1.setBounds(50,100, 100,30);
    l2=new Label("Second Label.");
    l2.setBounds(50,150, 100,30);
    f.add(l1); f.add(l2);
    f.setSize(400,400);
    f.setLayout(null);
    f.setVisible(true);
}
}
```

76. How to add text area program in java

```
import java.awt.*;
public class TextAreaExample
{
     TextAreaExample(){
        Frame f= new Frame();
            TextArea area=new TextArea("Welcome to Technolamror");
        area.setBounds(10,30, 300,300);
        f.add(area);
        f.setSize(400,400);
        f.setLayout(null);
        f.setVisible(true);
     }
public static void main(String args[])
{
   new TextAreaExample();
}
}
```

77. How to dropdown in AWT program in java

```
import java.awt.*;
public class ChoiceExample
{
        ChoiceExample(){
```

```
        Frame f= new Frame();
        Choice c=new Choice();
        c.setBounds(100,100, 75,75);
        c.add("Item 1 by Rajendra");
        c.add("Item 2 by Lamror");
        c.add("Item 3 by Technolamror");
        c.add("Item 4");
        c.add("Item 5");
        f.add(c);
        f.setSize(400,400);
        f.setLayout(null);
        f.setVisible(true);
    }
public static void main(String args[])
{
   new ChoiceExample();
}
}
```

78. How to create Swing program in java

```
import javax.swing.*;
public class FirstSwingExample {
public static void main(String[] args) {
JFrame f=new JFrame();//creating instance of JFrame
JButton b=new JButton("click");//creating instance of JButton
b.setBounds(130,100,100, 40);//x axis, y axis, width, height
f.add(b);//adding button in JFrame
f.setSize(400,500);//400 width and 500 height
f.setLayout(null);//using no layout managers
f.setVisible(true);//making the frame visible
}
}
```

79. How to add checkbox in Swing program in java

```
import javax.swing.*;
public class CheckBoxExample
{
     CheckBoxExample(){
        JFrame f= new JFrame("CheckBox Example by Technolamror");
        JCheckBox checkBox1 = new JCheckBox("C++");
        checkBox1.setBounds(100,100, 50,50);
        JCheckBox checkBox2 = new JCheckBox("Java", true);
        checkBox2.setBounds(100,150, 50,50);
        f.add(checkBox1);
        f.add(checkBox2);
        f.setSize(400,400);
        f.setLayout(null);
        f.setVisible(true);
     }
public static void main(String args[])
```

```
{
new CheckBoxExample();
}}
```

80. How to convert string to integer in java program

```
public class StringToIntExample{
public static void main(String args[]){
String s="200";
int i=Integer.parseInt(s);
System.out.println(s+100);//200100 because + is string concatenation operator
System.out.println(i+100);//300 because + is binary plus operator
}}
```

81. How to convert integer to string in java program

```
public class IntToStringExample1{
public static void main(String args[]){
int i=200;
String s=String.valueOf(i);
System.out.println(i+100);//300 because + is binary plus operator
System.out.println(s+100);//200100 because + is string concatenation operator
}}
```

82. How to convert string to long in java

```
public class StringToLongExample{
public static void main(String args[]){
String s="9990449935";
long l=Long.parseLong(s);
System.out.println(l);
}}
```

83. How to convert string to float in java

```
public class StringToFloatExample{
public static void main(String args[]){
String s="23.6";
float f=Float.parseFloat("23.6");
System.out.println(f);
}}
```

84. How to convert string to double in java program

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

```
String s="23.6";
double d=Double.parseDouble("23.6");
System.out.println(d);
}}
```

85. How to convert string to date in java program

```
import java.text.SimpleDateFormat;
import java.util.Date;
public class StringToDateExample1 {
public static void main(String[] args)throws Exception {
    String sDate1="31/12/1998";
    String sDate2 = "31-Dec-1998";
    String sDate3 = "12 31, 1998";
    String sDate4 = "Thu, Dec 31 1998";
    String sDate5 = "Thu, Dec 31 1998 23:37:50";
    String sDate6 = "31-Dec-1998 23:37:50";
    SimpleDateFormat formatter1=new SimpleDateFormat("dd/MM/yyyy");
    SimpleDateFormat formatter2=new SimpleDateFormat("dd-MMM-yyyy");
    SimpleDateFormat formatter3=new SimpleDateFormat("MM dd, yyyy");
    SimpleDateFormat formatter4=new SimpleDateFormat("E, MMM dd yyyy");
    SimpleDateFormat formatter5=new SimpleDateFormat("E, MMM dd yyyy HH:mm:ss");
    SimpleDateFormat formatter6=new SimpleDateFormat("dd-MMM-yyyy HH:mm:ss");
    Date date1=formatter1.parse(sDate1);
    Date date2=formatter2.parse(sDate2);
    Date date3=formatter3.parse(sDate3);
    Date date4=formatter4.parse(sDate4);
    Date date5=formatter5.parse(sDate5);
    Date date6=formatter6.parse(sDate6);
    System.out.println("String to Date converter by technolamror");
    System.out.println(sDate1+"\t"+date1);
    System.out.println(sDate2+"\t"+date2);
    System.out.println(sDate3+"\t"+date3);
    System.out.println(sDate4+"\t"+date4);
    System.out.println(sDate5+"\t"+date5);
    System.out.println(sDate6+"\t"+date6);
}
}
```

86. Create ArrayList program in java

```
import java.util.*;
class Arrylist_Technolamror{
 public static void main(String args[]){
  ArrayList<String> list=new ArrayList<String>();//Creating arraylist
  list.add("Rajendra");//Adding object in arraylist
  list.add("Mahendra");
  list.add("Raja");
  list.add("Technolamror");
```

```
  //Traversing list through Iterator
  Iterator itr=list.iterator();
  while(itr.hasNext()){
   System.out.println(itr.next());
  }
 }
}
```

87. How to create LinkedList program in java

```
import java.util.*;
public class LinkedList_technolamror{
 public static void main(String args[]){

  Linkedal<String> al=new Linkedal<String>();

  al.add("Rajendra");//Adding object in LinkedList
  al.add("Mahendra");
  al.add("Raja");
  al.add("Technolamror");

  Iterator<String> itr=al.iterator();
  while(itr.hasNext()){
   System.out.println(itr.next());
  }
 }
}
```

88. How to ArrayList using list interface program in java

```
import java.util.*;
class Book {
int id;
String name,author,publisher;
int quantity;
public Book(int id, String name, String author, String publisher, int quantity) {
    this.id = id;
    this.name = name;
    this.author = author;
    this.publisher = publisher;
    this.quantity = quantity;
}
}
public class ListIteratorExample {
public static void main(String[] args) {
    //Creating list of Books
    List<Book> list=new ArrayList<Book>();
    //Creating Books
    Book b1=new Book(101,"Let us C","Yashwant Kanetkar","BPB",8);
    Book b2=new Book(102,"Java Program Questation","Rajendra","Technolamror",4);
    Book b3=new Book(103,"Operating System","Galvin","Wiley",6);
    //Adding Books to list
```

```
    list.add(b1);
    list.add(b2);
    list.add(b3);
    System.out.println("Original content of list is: ");
    //Traversing list
    for(Book b:list){
    System.out.println(b.id+" "+b.name+" "+b.author+" "+b.publisher+" "+b.quantity);
    }
    ListIterator<Book> itr=list.listIterator();
    System.out.println("Modified content of list in backward is: ");
    while(itr.hasNext()){
        Book st=(Book)itr.next();
        System.out.println(st.quantity+" "+st.publisher+" "+st.author+" "+st.name+"
"+st.id);
      }
}
}
```

89. How to create Hashset program in java

```
import java.util.*;
class TestCollection9{
 public static void main(String args[]){
  //Creating HashSet and adding elements
  HashSet<String> set=new HashSet<String>();
  set.add("Rajendra");
  set.add("Raja");
  set.add("Ravi");
  set.add("Technolamror");
  //Traversing elements
  Iterator<String> itr=set.iterator();
  while(itr.hasNext()){
   System.out.println(itr.next());
  }
 }
}
```

90. How to create LinkedHashSet program in java

```
import java.util.*;
class LinkedHashSet_Technolamror{
 public static void main(String args[]){
       LinkedHashSet<String> al=new LinkedHashSet<String>();

  al.add("Rajendra");
  al.add("Raja");
  al.add("Ravi");
  al.add("Technolamror");

  Iterator<String> itr=al.iterator();
  while(itr.hasNext()){
         out         itr
```

```
  }
 }
}
```

91. How to create TreeSet program in java

```
import java.util.*;
class TreeSet_Technolamror{
 public static void main(String args[]){
  //Creating and adding elements
  TreeSet<String> al=new TreeSet<String>();
  al.add("Rajendra");
  al.add("Raja");
  al.add("Ravi");
  al.add("Technolamror");  ments
  Iterator<String> itr=al.iterator();
  while(itr.hasNext()){
   System.out.println(itr.next());
  }
 }
}
```

92. How to create PriorityQueue program in java

```
import java.util.*;
class PriorityQueue_Technolamror{
public static void main(String args[]){
PriorityQueue<String> queue=new PriorityQueue<String>();
queue.add("Rajendra");
queue.add("Mahendra");
queue.add("Raja");
queue.add("Technolamror");
queue.add("Rahul");
System.out.println("head:"+queue.element());
System.out.println("head:"+queue.peek());
System.out.println("iterating the queue elements:");
Iterator itr=queue.iterator();
while(itr.hasNext()){
System.out.println(itr.next());
}
queue.remove();
queue.poll();
System.out.println("after removing two elements:");
Iterator<String> itr2=queue.iterator();
while(itr2.hasNext()){
System.out.println(itr2.next());
}
}
}
```

93. How to create HashMap using map interface program in java

```
import java.util.*;
class MapInterfaceExample{
 public static void main(String args[]){
  Map<Integer,String> map=new HashMap<Integer,String>();
  map.put(100,"Rajendra");
  map.put(101,"Lamror");
  map.put(102,"Technolamror");
  for(Map.Entry m:map.entrySet()){
   System.out.println(m.getKey()+" "+m.getValue());
  }
 }
}
```

94. How to create LinkedHashMap program in java

```
import java.util.*;
class LinkedHashMap_Technolmaror{
 public static void main(String args[]){

  LinkedHashMap<Integer,String> hm=new LinkedHashMap<Integer,String>();

  hm.put(100,"Rajendra");
  hm.put(101,"Vijay");
  hm.put(102,"Technolamror");

for(Map.Entry m:hm.entrySet()){
   System.out.println(m.getKey()+" "+m.getValue());
  }
 }
}
```

95. How to create TreeMap program in java

```
import java.util.*;
class TreeMap_Technolamror{
 public static void main(String args[]){
  TreeMap<Integer,String> hm=new TreeMap<Integer,String>();
  hm.put(100,"Amit");
  hm.put(102,"Ravi");
  hm.put(101,"Vijay");
  hm.put(103,"Technolamror");
  for(Map.Entry m:hm.entrySet()){
   System.out.println(m.getKey()+" "+m.getValue());
  }
 }
}
```

96. How to create Hashtable program in java

```
import java.util.*;
class Hashtable_Technolamror{
 public static void main(String args[]){
  Hashtable<Integer,String> hm=new Hashtable<Integer,String>();

  hm.put(100,"Rajendra");
  hm.put(102,"Praveen");
  hm.put(101,"Bipin");
  hm.put(103,"Pankaj");

  for(Map.Entry m:hm.entrySet()){
   System.out.println(m.getKey()+" "+m.getValue());
  }
 }
}
```

97. How to create Array program in java

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

int a[]=new int[5];//declaration and instantiation
a[0]=10;//initialization
a[1]=20;
a[2]=70;
a[3]=40;
a[4]=50;

//printing array
for(int i=0;i<a.length;i++)//length is the property of array
System.out.println(a[i]);

}}
```

98. How to create Multidimensional array program in java

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

//declaring and initializing 2D array
int arr[][]={{1,2,3},{2,4,5},{4,4,5}};

//printing 2D array
for(int i=0;i<3;i++){
 for(int j=0;j<3;j++){
   System.out.print(arr[i][j]+" ");
 }
 System.out.println();
}
```

```
}}
```

99. How to create Find Factorial No using Recursion Program in java

```
public class Recursion_Technolamror {
    static int factorial(int n){
          if (n == 1)
            return 1;
          else
            return(n * factorial(n-1));
    }

public static void main(String[] args) {
System.out.println("Factorial of 5 is: "+factorial(5));
}
}
```

100. How to create Method Overriding program in java

```
class Bank{
int getRateOfInterest(){return 0;}
}

class SBI extends Bank{
int getRateOfInterest(){return 8;}
}

class ICICI extends Bank{
int getRateOfInterest(){return 7;}
}
class AXIS extends Bank{
int getRateOfInterest(){return 9;}
}

class Test2{
public static void main(String args[]){
SBI s=new SBI();
ICICI i=new ICICI();
AXIS a=new AXIS();
System.out.println("SBI Rate of Interest: "+s.getRateOfInterest());
System.out.println("ICICI Rate of Interest: "+i.getRateOfInterest());
System.out.println("AXIS Rate of Interest: "+a.getRateOfInterest());
} }
```

Thank You Friends For Reading

Sandeep Tiwari

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