### **Basic Java Programs For Practice**

* **Palindrome Program in Java**

**import java.util.Scanner;**

**public class palindrome{**

**static int ispalindrome(int number){**

**int remainder, revrsenum = 0, orgnum;**

**orgnum = number;**

**while(number != 0){**

**remainder = number % 10;**

**revrsenum = revrsenum \* 10 + remainder;**

**number /= 10;**

**}**

**if( orgnum == revrsenum){**

**return 1;**

**}**

**else{**

**return 0;**

**}**

**}**

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

**Scanner sc = new Scanner(System.in);**

**System.out.print("Enter The number:- ");**

**int num = sc.nextInt();**

**if (ispalindrome(num) == 1) {**

**System.out.println(num + "Is A Plindrome");**

**}**

**else{**

**System.out.println(num + "Is Not A Plindrome");**

**}**

**} }**

* **Factorial Program in Java**

**import java.util.Scanner;**

**public class Factorial {**

**static int isfactorial(int number){**

**int num = number, fact = 1;**

**if (num != 0) {**

**while (num != 1) {**

**fact = fact \* num;**

**num -- ;**

**};**

**System.out.println("Factorial is :- " + fact);**

**return fact;**

**}**

**else{**

**return 0;**

**}**

**}**

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

**Scanner sc = new Scanner(System.in);**

**System.out.print("Enter The Number:- ");**

**int number = sc.nextInt();**

**Factorial fact = new Factorial();**

**fact.isfactorial(number);**

**}**

**}**

* **Armstrong Number in Java**

**import java.util.Scanner;**

**public class Armstrong {**

**static int isarmstrong(int number){**

**int num = number, remainder, result=0, n=0;**

**while(num !=0){**

**num /= 10;**

**++n;**

**}**

**num = number;**

**while(num != 0){**

**remainder = num % 10;**

**result = result + (int)Math.pow(remainder, n);**

**num /=10;**

**}**

**if (result == number) {**

**return 1;**

**}else{**

**return 0;**

**}**

**}**

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

**Scanner sc = new Scanner(System.in);**

**System.out.print("Enter The Number:- ");**

**int number = sc.nextInt();**

**if (isarmstrong(number) == 1) {**

**System.out.println(number +  " Is Armstrong");**

**}**

**else{**

**System.out.println(number +  " Is Not Armstrong");**

**}**

**}**

**}**

* **How to Generate Random Numbers in Java**

**import java.util.\*;**

**public class random {**

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

**Random random = new Random();**

**int Random = random.nextInt();**

**System.out.println("Roandom number:- "+ Random);**

**int randomInRange = random.nextInt(11);**

**System.out.println("Random in Range:- "+ randomInRange);**

**}**

**}**

* **How to Print Patterns in Java**
* **How to Compare Two Objects in Java**

**How to Create Objects in Java**

* **How to Print ASCII Value in Java**

**Array Java Programs For Practice**

* **Java Program to copy all elements of one array into another array**
* **Java Program to find the frequency of each element in the array**
* **Java Program to left rotate the elements of an array**
* **Java Program to print the duplicate elements of an array**
* **Java Program to print the elements of an array**
* **Java Program to print the elements of an array in reverse order**
* **Java Program to print the elements of an array present on an even position**
* **Java Program to print the elements of an array present in an odd position**
* **Java Program to print the largest element in an array**
* **Java Program to print the smallest element in an array**
* **Java Program to print the number of elements present in an array**
* **Java Program to print the sum of all the items of the array**
* **Java Program to right rotate the elements of an array**
* **Java Program to sort the elements of an array in ascending order**
* **Java Program to sort the elements of an array in descending order**
* **Java Program to Find 3rd Largest Number in an array**
* **Java Program to Find the Smallest Number in an array**
* **Java Program to Remove Duplicate Elements in an array**
* **Java Program to Print Odd and Even Numbers from an array**
* **How to Sort an Array in Java**

**Java Matrix Programs For Practice**

* **Java Program to Add Two Matrices**
* **Java Program to Multiply Two Matrices**
* **Java Program to subtract the two matrices**
* **Java Program to determine whether two matrices are equal**
* **Java Program to display the lower triangular matrix**
* **Java Program to display the upper triangular matrix**
* **Java Program to find the frequency of odd & even numbers in the given matrix**
* **Java Program to find the product of two matrices**
* **Java Program to find the sum of each row and each column of a matrix**
* **Java Program to find the transpose of a given matrix**
* **Java Program to determine whether a given matrix is an identity matrix**
* **Java Program to determine whether a given matrix is a sparse matrix**
* **Java Program to Transpose the matrix**

**String Programs for Practice**

* **Java Program to count the total number of characters in a string**
* **Java Program to count the total number of characters in a string 2**
* **Java Program to count the total number of punctuation characters that exist in a String**
* **Java Program to count the total number of vowels and consonants in a string**
* **Java Program to determine whether two strings are the anagram**
* **Java Program to divide a string into ‘N’ equal parts.**
* **Java Program to find all subsets of a string**
* **Java Program to find the longest repeating sequence in a string**
* **Java Program to find all the permutations of a string**
* **Java Program to remove all the white spaces from a string**
* **Java Program to replace lower-case characters with upper-case and vice-Versa**
* **Java Program to replace the spaces of a string with a specific character**
* **Java Program to determine whether a given string is a palindrome**
* **Java Program to determine whether one string is a rotation of another**
* **Java Program to find a maximum and minimum occurring character in a string**
* **Java Program to find the Reverse of the string**
* **Java program to find the duplicate characters in a string**
* **Java program to find the duplicate words in a string**
* **Java Program to find the frequency of characters**
* **Java Program to find the largest and smallest word in a string**
* **Java Program to find the most repeated word in a text file**
* **Java Program to find the number of words in the given text file**
* **Java Program to separate the Individual Characters from a String**
* **Java Program to swap two string variables without using a third or temp variable.**

**Java Searching and Sorting Basic Java Programs For Practice**

* **Linear Search in Java**
* **Binary Search in Java**
* **Bubble Sort in Java**
* **Selection Sort in Java**
* **Insertion Sort in Java**

**Conversion Programs List in Java for Practice**

* **How to convert String to int in Java**
* **How to convert int to String in Java**
* **How to convert String to long in Java**
* **How to convert long to String in Java**
* **How to convert String to float in Java**
* **How to convert float to String in Java**
* **How to convert String to double in Java**
* **How to convert double to String in Java**
* **How to convert String to Date in Java**
* **How to convert Date to String in Java**
* **How to convert String to char in Java**
* **How to convert char to String in Java**
* **How to convert char to int in Java**
* **How to convert int to char in Java**
* **How to convert String to boolean in Java**
* **How to convert a boolean to a String in Java**
* **How to convert date to Timestamp in Java**
* **How to convert timestamp to Date in Java**
* **How to convert binary to Decimal in Java**
* **How to convert decimal to Binary in Java**
* **How to convert hex to Decimal in Java**

**Singly Linked List Difficult Java Programs for Practice**

* **Java Program to create and display a singly linked list**
* **Java program to create a singly linked list of n nodes and count the number of nodes**
* **Java program to create a singly linked list of n nodes and display it in reverse order**
* **Java program to delete a node from the beginning of the singly linked list**
* **Java program to delete a node from the middle of the singly linked list**
* **Java program to delete a node from the end of the singly linked list**
* **Java program to determine whether a singly linked list is the palindrome**
* **Java program to find the maximum and minimum value node from a linked list**
* **Java Program to insert a new node in the middle of the singly linked list**
* **Java program to insert a new node at the beginning of the singly linked list**
* **Java program to insert a new node at the end of the singly linked list**
* **Java program to remove duplicate elements from a singly linked list**
* **Java Program to search an element in a singly linked list**

**Circular Linked List Java Programs for Practice Intermediate**

* **Java program to create and display a Circular Linked List**
* **Java program to create a Circular Linked List of N nodes and count the number of nodes**
* **Java program to create a Circular Linked List of n nodes and display it in reverse order**
* **Java program to delete a node from the beginning of the Circular Linked List**
* **Java program to delete a node from the end of the Circular Linked List**
* **Java program to delete a node from the middle of the Circular Linked List**
* **Java program to find the maximum and minimum value node from a circular linked list**
* **Java program to insert a new node at the beginning of the Circular Linked List**
* **Java program to insert a new node at the end of the Circular Linked List**
* **Java program to insert a new node in the middle of the Circular Linked List**
* **Java program to remove duplicate elements from a Circular Linked List**
* **Java program to search an element in a Circular Linked List**
* **Java program to sort the elements of the Circular Linked List**

**Java Doubly Linked List Programs**

* **Java program to convert a given binary tree to a doubly-linked list**
* **Java program to create a doubly linked list from a ternary tree**
* **Java program to create a doubly-linked list of n nodes and count the number of nodes**
* **Java program to create a doubly-linked list of n nodes and display it in reverse order**
* **Java program to create and display a doubly linked list**
* **Java program to delete a new node from the beginning of the doubly linked list**
* **Java program to delete a new node from the end of the doubly linked list**
* **Java program to delete a new node from the middle of the doubly linked list**
* **Java program to find the maximum and minimum value node from a doubly linked list**
* **Java program to insert a new node at the beginning of the Doubly Linked list**
* **Java program to insert a new node at the end of the Doubly Linked List**
* **Java program to insert a new node in the middle of the Doubly Linked List**
* **Java program to remove duplicate elements from a Doubly Linked List**
* **Java program to rotate doubly linked list by N nodes**
* **Java program to search an element in a doubly-linked list**
* **Java program to sort the elements of the doubly linked list**

**Tree Advanced Java Programs for Practice**

* **Java Program to calculate the Difference between the Sum of the Odd Level and the Even Level Nodes of a Binary Tree**
* **Java program to construct a Binary Search Tree and perform deletion and In-order traversal**
* **Java program to convert Binary Tree to Binary Search Tree**
* **Java program to determine whether all leaves are at the same level**
* **Java program to determine whether two trees are identical**
* **Java program to find the maximum width of a binary tree**
* **Java program to find the largest element in a Binary Tree**
* **Java program to find the maximum depth or height of a tree**
* **Java program to find the nodes which are at the maximum distance in a Binary Tree**
* **Java program to find the smallest element in a tree**
* **Java program to find the sum of all the nodes of a binary tree**
* **Java program to find the total number of possible Binary Search Trees with N keys**
* **Java program to implement Binary Tree using the Linked List**
* **Java program to search a node in a Binary Tree**