**450+ Programs**

# **1. Simple Questions**

* Print Hello World
* Add two numbers/binary numbers/characters
* Calculate compound interest
* Calculate power of a number
* Swap two numbers
* Area and Circumference of a Circle
* Print Ascii Value of the Character
* Area of Triangle
* Convert a Person’s Name in Abbreviated
* Simple Interest
* Gross Salary of an Employee
* Percentage of 5 Subjects
* [Converting Temperature Celsius into Fahrenheit](https://cstutorialpoint.com/c-program-to-convert-temperature-from-celsius-to-fahrenheit-and-fahrenheit-to-celsius/)
* The Display Size of the Different Data Type
* [Factorial of a Given Number](https://cstutorialpoint.com/c-program-to-find-factorial-of-a-number/)
* Read Integer (N) and Print the First Three Powers (N^1, N^2, N^3)
* [Area of a Circle](https://cstutorialpoint.com/c-program-to-find-area-of-circle/)
* LCM of Two Numbers
* GCD of Two Numbers
* How to Print the Message " HELLO JAVA " In Java
* How to Variable Declaration and Initialization in Java
* How to Concatenate in Java
* How to Print Different Values in Java
* Java Programs To Find Area And Circumference Of Circle
* How to Print ASCII Value in Java Programs
* Java Programs To Find Area Of Triangle
* Java Programs to Convert a Person's Name in Abbreviated
* Java Programs For Calculate A Simple Interest
* Write a Program to Calculate the Gross Salary of an Employee in Java
* Java Programs For Converting Temperature Celsius Into Fahrenheit
* Java Program to Find Size of Different Data Types
* Java Program to Find Square and Cube of a Number (N^1, N^2, N^3)
* Fibonacci Series in Java
* Prime Number Program in Java
* Palindrome Program in Java
* Factorial Program in Java
* Armstrong Number in Java
* How to Generate Random Numbers in Java
* How to Print Patterns in Java
* How to Compare Two Objects in Java
* How to Create Objects in Java
* Calculate area of rectangle
* Calculate area and circumference of circle using multiple classes

# **2. If/Else Statement**

* The Greatest Number Among the Given Three Number
* The Number Is Positive or Negative
* Character Is Vowel or Consonant
* A Character Is an Alphabet or Not
* Uppercase, Lowercase, Special Character, or Digit
* The Number Is Positive or Negative
* The Number Is Even or Odd
* Greatest of Two Numbers
* Greatest Among Three Numbers
* Leap Year
* The Date Is Correct or Not
* Voting Eligibility Checker
* Find the maximum between two numbers.
* Find the maximum between the three numbers.
* Check whether a number is negative, positive or zero.
* Check whether a number is divisible by 5 and 11 or not.
* Find whether a number is even or odd.
* Check whether a year is a leap year or not.
* Check whether a character is an alphabet or not.
* Input any alphabet and check whether it is vowel or consonant.
* Input any character and check whether it is the alphabet, digit or special character.
* Check whether a character is an uppercase or lowercase alphabet.
* Input week number and print weekday.
* Input month number and print number of days in that month.
* Count the total number of notes in a given amount.
* Input angles of a triangle and check whether the triangle is valid or not.
* Input all sides of a triangle and check whether the triangle is valid or not.
* Check whether the triangle is an equilateral, isosceles or scalene triangle.
* Find all roots of a quadratic equation.
* Calculate profit or loss.
* Java Program To Check Character Is Uppercase, Lowercase Alphabet Or A Digit Or A Special Symbol
* Write a Java Program to Find the Largest of Three Numbers Using Nested IF
* Employee Salary Program in Java
* Java Program to Find Number Is Positive or Negative
* Java Program To Find Character Is Vowel Or Not

# **3. Loops**

Write Java programs to:

• Display prime numbers between 1 and 100 or 1 and n

• Swap two variables without using the third variable

• Find the factorial of a number

• Check if a number is palindrome or not

• Print Fibonacci series till n

• Add two integer variables in 5 different ways using functions and control statement

• Find square root of a number without sqrt method

• Check Armstrong number

• Calculate grades of students using their marks

• Use switch case, recursion, print patterns, etc.

## **1. While Loop or While-Do Loop Questions**

* Reverse A given Number
* Find Number Is Armstrong Or Not
* Calculate Sum of Natural Numbers
* Display Fibonacci Series
* Find LCM of two Numbers
* Reverse a Number
* Check Whether a Number is A Palindrome or Not
* Count Number of Digits of an Integer
* Find A Generic Root Of Number
* Print A Calendar Taking Input From User Using Loop
* Number Is Divisible By 11 Using (VEDIC MATH)
* Denomination of an Amount

## **2. Do-While Loop Questions**

Solve the above program using Do-While Loop

## **3. For Loop Questions**

* Generate IP (Internet Protocol) Addresses Using
* Print Multiplication Table Using
* Sort A Float Array In Ascending And Descending Order Using
* Find GCD of two Numbers Using
* Denomination Program in Java | 2000, 500, 100, 50, 20, 10, 5, 2, 1
* Factorial Program in Java Using For Loop
* Java Program For Calculate Percentage Of 5 Subjects

# **4. Switch Case**

* Temperature Conversion Celsius To Fahrenheit And Vice Versa
* Find The Day
* Calculator
* Find A Grade Of Given Marks or (Find a Grade of Given Marks Using Switch Case)
* Find Radius, Circumference and Volume of Cylinder
* Remove All Vowels From A String
* Print day of week name using switch case.
* Print total number of days in a month using switch case.
* Check whether an alphabet is a vowel or consonant using a switch case.
* Find the maximum between two numbers using the switch case.
* Check whether a number is even or odd using a switch case.
* Check whether a number is positive, negative or zero using a switch case.
* Find roots of a quadratic equation using switch case.
* Create a Simple Calculator using a switch case.

**Array Java Programs For Practice**

Write Java programs to:

* Calculate average of numbers using Array
* Reverse an array
* Sort an array in ascending order
* Convert char Array to String
* Add two Matrix using Multi-dimensional Arrays
* Sort strings in alphabetical order
* Find out the highest and second highest numbers in an array
* Concatenate two arrays
* 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 2nd Largest Number in an array
* Java Program to Find the Largest Number in an array
* Java to Program Find 2nd Smallest 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

# **5. Array Questions**

* Insert An Element Desired or Specific Position In An Array
* Remove Duplicates Items In An Array
* Delete Element From Array At Desired Or Specific Position
* Print “I AM IDIOT” Instead Of Your Name Using Array
* Check String Is Palindrome Or Not Using For Loop
* Convert All Input String Simultaneously Into Asterisk ( \* )
* Read and print elements of the array. – using recursion.
* Print all negative elements in an array.
* Sum of all array elements. – using recursion.
* Find a maximum and minimum element in an array. – using recursion.
* Get the second largest element in an array.
* Count the total number of even and odd elements in an array.
* Count the total number of negative elements in an array.
* Copy all elements from an array to another array.
* Insert an element in an array.
* Delete an element from an array at the specified position.
* Count frequency of each element in an array.
* Print all unique elements in the array.
* Count the total number of duplicate elements in an array.
* Delete all duplicate elements from an array.
* Merge two arrays to the third array.
* Find the reverse of an array.
* Put even and odd elements of an array in two separate arrays.
* Search an element in an array.
* Sort array elements in ascending or descending order.
* Sort even and odd elements of the array separately.
* Left rotate an array.
* Right rotate an array.

**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

# **6. Matrix Questions**

* Add two matrices.
* Subtract two matrices.
* Perform scalar matrix multiplication.
* Multiply two matrices.
* Check whether two matrices are equal or not.
* Sum of the main diagonal elements of a matrix.
* Find the sum of minor diagonal elements of a matrix.
* Find the sum of each row and column of a matrix.
* Interchange diagonals of a matrix.
* The upper triangular matrix.
* Find a lower triangular matrix.
* Sum of the upper triangular matrix.
* Find the sum of a lower triangular matrix.
* The transpose of a matrix.
* Find determinant of a matrix.
* Identity matrix in C.
* Check the sparse matrix.
* Check the symmetric 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 Program to print the smallest and biggest possible palindrome word in a given string

# **7. String Questions List**

* String Char-Case Change
* A String is Palindrome or Not
* A String Is an Anagram or Not
* Find the length of a string.
* Copy one string to another string.
* Concatenate two strings.
* Compare two strings.
* Convert lowercase string to uppercase.
* Convert uppercase string to lowercase.
* Toggle case of each character of a string.
* Find a total number of alphabets, digits or special character in a string.
* Count the total number of vowels and consonants in a string.
* Count the total number of words in a string.
* Find the reverse of a string.
* Check whether a string is a palindrome or not.
* Reverse order of words in a given string.

# **8. String Questions: Level Up**

* Find the first occurrence of a character in a given string.
* Find the last occurrence of a character in a given string.
* Search all occurrences of a character in a given string.
* Count occurrences of a character in a given string.
* Find the highest frequency character in a string.
* Find the lowest frequency character in a string.
* Count the frequency of each character in a string.
* Remove the first occurrence of a character from a string.
* Remove the last occurrence of a character from a string.
* Delete all occurrences of a character from a string.
* Remove all repeated characters from a given string.
* Replace the first occurrence of a character with another in a string.
* Replace the last occurrence of a character with another in a string.
* Put all occurrences of a character with another in a string.
* Find the first occurrence of a word in a given string.
* Find the last occurrence of a word in a given string.
* Search all occurrences of a word in a given string.
* Count occurrences of a word in a given string.
* Remove the first occurrence of a word from the string.
* Remove the last occurrence of a word in a given string.
* Delete all occurrence of a word in a given string.
* A Trim leading white space characters from a given string.
* Trim trailing white space characters from a given string.
* Trim both leading and trailing white space characters from a given string.
* Remove all extra blank spaces from the given string.

# 9. Function Questions

* Cube of any number using the function.
* Find diameter, circumference and area of a circle using functions.
* Maximum and minimum between two numbers using functions.
* Check whether a number is even or odd using functions.
* Check whether a number is prime, Armstrong or perfect number using functions.
* Find all prime numbers between the given interval using functions.
* Print all strong numbers between the given interval using functions.
* Armstrong numbers between the given interval using functions.
* Print all perfect numbers between the given interval using functions.
* Find the power of any number using recursion.
* Print all natural numbers between 1 to n using recursion.
* Print all even or odd numbers in a given range using recursion.
* Sum of all natural numbers between 1 to n using recursion.
* Find the sum of all even or odd numbers in a given range using recursion.
* Find reverse of any number using recursion.
* Check whether a number is a palindrome or not using recursion.
* Find the sum of digits of a given number using recursion.
* Find factorial of any number using recursion.
* Generate nth Fibonacci term using recursion.
* Find gcd (HCF) of two numbers using recursion.
* Find lcm of two numbers using recursion.
* Display all array elements using recursion.
* Find the sum of elements of the array using recursion.
* Find maximum and minimum elements in an array using recursion.
* Stricmp() Function (Case In-Sensitive Compare)
* Strncat() Function (String Concatenate)
* Strstr() Function (Sub-String)
* Strlwr() Function (To Lower-Case)
* Strupr() Function (To Upper-Case)
* Strncmp() Compare & Chars
* Strncpy() Copy N Chars
* Strrev() String Reverse
* Strlen() String Length
* Strcat() String Concatenate
* Strcmp() String Compare
* Strcpy() Copy the String

# 11. File Handling

* Create a file and write contents, save and close the file.
* Read file contents and display them on the console.
* Read numbers from a file and write even, odd and prime numbers to separate file.
* Append content to a file.
* Compare two files.
* How to Copy contents from one file to another file.
* Merge two files to the third file.
* Count characters, words and lines in a text file.
* Delete a word from a text file.
* Remove the specific line from a text file.
* Remove empty lines from a text file.
* Find the occurrence of a word in a text file.
* Count occurrences of a word in a text file.
* Count occurrences of all words in a text file.
* Find and replace a word in a text file.
* Replace a specific line in a text file.
* Print source code of the same program.
* Convert uppercase to the lowercase character and vice versa in a text file.
* Find properties of a file using stat() function.
* Check if a file or directory exists.
* Rename a file using rename() function.
* List all files and sub-directories recursively.

**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 String to Object in Java
* How to convert an Object to a String in Java
* How to convert int to long in Java
* How to convert long to int in Java
* How to convert int to double in Java
* How to convert double to int 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
* How to convert decimal to Hex in Java
* How to convert octal to Decimal in Java
* How to convert decimal to Octal in Java

**Java Simple Java Programs for Practice Pattern Programs**

* Java program to print the following spiral pattern on the console
* Java program to print the following pattern
* Java program to print the following pattern 2
* Java program to print the following pattern 3
* Java program to print the following pattern 4
* Java program to print the following pattern 5
* Java program to print the following pattern on the console

**OPPS**

**Create a class Employee and encapsulate the data members.**

**Create demo applications to illustrate different types of inheritance.**

**Create an Array of Employee class and initialize array elements with different employee**

**objects.**

**Try to understand the no of objects on heap memory when any array is created.**

**Create a demo application to understand the role of access modifiers.**

**Implement multilevel inheritance using different packages.**

**Access/invoke protected members/methods of a class outside the package.**

**Override finalize method to understand the behavior of JVM garbage collector.**

**Create sample classes to understand boxing & unboxing.**

**Use different methods of java defined wrapper classes.**

**Create StringDemo class and perform different string manipulation methods.**

**Tutorial:**

**Understand the difference between String / StringBuffer / StringBuilder.**

Create user defined checked and unchecked exceptions .

Create a Demo class to Read & write image/text files. Create SerializationDemo class to illustrate serialization and de-serialization process.

**Create DateManipulator class to convert String to date, date to String and to find out**

**number of days between two dates.**

**Create a List of java defined wrapper classes and perform insert/delete/search/iterate/sort**

**operations.**

**Create a collection of Employee class and sort objects using comparable and comparator**

**interfaces.**

**Implement Queue data structure using LinkedList and Queue collection**

**Create an Employee HashSet collection and override equals & hashCode methods to**

**understand how the set maintains uniqueness using these methods.**

**Create a Sample class to understand generic assignments using “? extends SomeClass” , “?**

**super**

**someclass ” and “?”.**

**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

# 12. Sorting

* Bubble Sort in C
* Bucket or Radix Sort in C
* Shell Sort in C
* Merge Sort in C
* Heap Sort in C
* Selection Sort in C
* Insertion Sort in C

# 13. Searching

* Binary Search in C
* Linear Search in C
* Recursive Binary Search in C

# 14. Tricky Questions for Expert Only | Legendary level

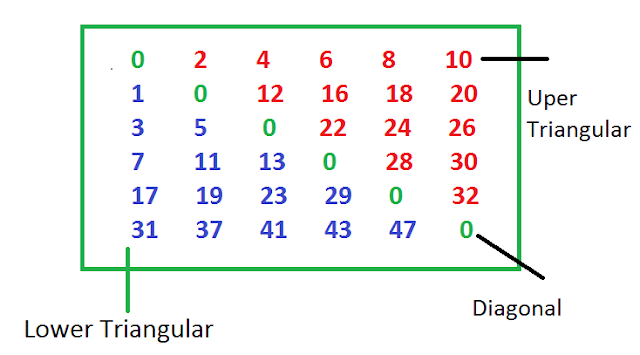
This is a high-level section for legendary programmers or thinkers, this section can help you to become a pro programmer. In this section, two categories are the number pattern and start pattern. I just keep the pattern programming and number programming separate. All the tricky questions or we can say that number programming or start pattern programming solutions of c programming questions and answers are below.

* Number Series- C Programming Questions and Answers
* Start Pattern Printing- C Programming Questions and Answers
* Puzzles Questions

## 15. Puzzles Questions

* Print numbers from 1 to n without using a semicolon?
* Sum of two numbers without using any operator
* How to show memory representation of c variables?
* Condition to print “HelloWorld”
* Modify/add only one character and print ‘\*’ exactly 20 times
* Sum the digits of a given number in a single statement?

**4. List of All Java Pattern Program**

Java Program to Print Even Numbers in Upper Triangular and Odd Numbers in Lower Triangular in a Matrix  


### **5. AWT / Swing / Applet (GUI) Java Programs**

* [Java Program Using Applet to Implement an Arithmetic Calculator](https://www.programmingwithbasics.com/2023/02/calculator-program-in-java-using-applet.html)
* [How to Run Java Applet Program in CMD Using appletviewer](https://www.programmingwithbasics.com/2023/02/run-java-applet-program-in-cmd.html)
* [An Applet Program That Prints Random Dot in Java](https://www.programmingwithbasics.com/2017/11/an-applet-program-that-print-random-dot.html)
* [Bouncing Ball Program in Java Using Applet](https://www.programmingwithbasics.com/2017/11/bouncing-ball-program-in-java-using.html)

https://www.programmingwithbasics.com/p/list-java-programs.html

**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

**For Solutions Please Visit.**

https://cstutorialpoint.com/c-programming-examples/

<https://www.programmingwithbasics.com/p/basic-c-programs-for-practice-pdf.html>