

Tutorial-1

Q1 Write a C program to find the smallest and largest number from given n numbers.

Q2. Using recursion find the factorial of a given no.

Q3. Write a program to implement stack.

Q4. Write a C program to invert the linked list.

Q5 Write a C programs to Show the following output.

```
          1
        1  2
      1  2  3
```

Tutorial -2

Q1 Introduction to C++

1. C in , C Out , include files
2. operator loading , white space , user defined data types , header files , declaration & definitions
3. examples

Tutorial-3

Q1 Discuss resolution operation

Q2 explain object & classes in C++.

Tutorial 4

Discuss the state diagram for the control of an electric train.

Tutorial-5

Design the software to support a computerized banking network including both human cashiers & ATMs to be shared by consortium of banks. Each bank provides its own accounts & process transactions against them. Cashier stations are owned by individual banks & communicate directly with their own banks computers. Human cashiers enter account & transaction data. Automatic teller machines communicate with a central computer which clears transaction with the appropriate banks. An ATM accepts a cash card, interacts with the user, communicates with the central system to carry out the transaction, dispenses cash and prints receipts. The system requires appropriate record keeping & security provisions. The system must handle concurrent access to the same account correctly. The banks will provide them their own software for their own computers. You are to design the software for the ATM's and the network. The cost of the shared system will be apportioned to the banks according to the no. of customers with the cash cards.

Tutorial-6

Discuss the history of Object Oriented programming languages.

Discuss the Evolution of Object Oriented Programming Languages.

Discuss the characteristics of popular Object Oriented Programming Languages & compare the features of C, C++ & Java Language.

Tutorial-7

List & discuss the data types to be used in an Object Oriented programming Language. Case study Java List & discuss Relational, Arithmetic & Logical operators with respect to Java. List & discuss all the Loop & Jumping statements. Do Case study with Java.

Tutorial-8

Discuss the concept of class in an object oriented language.

Discuss static, non-static classes. In an Object oriented language discuss operator overloading.

Tutorial-9

With example describe Method overloading, Method overriding case study with the help of Java language.

Tutorial 10

With Examples describe Constructors, constructor overloading. Do case study with the help of Java language.

Tutorial 11

Describe Abstract Methods. How the abstract methods can be implemented with inheritance so that the classes containing them can finally be instantiated. Describe with the help of example.

Tutorial 12

Describe the interfaces in java. How they help in implementing the multiple inheritance.

Describe with the help of example.

Tutorial 13

What is Exception? How an Exception should be handled. Explain Exception Handling in Java.

Explain Try, Catch, Throw, Throws & Finally Keywords in Java.

Tutorial 14

What is Multithreading? How we implement it in Java.

How we can do it using Extends Thread class & implementing the Runnable class.

Explain with the help of examples.

Explain the use of Synchronized & other Thread related Keywords.