

Evolution of C

C character set

Constant

Integer Constants

Real Constants

Character Constants

Keywords

About Variables

Initializing Variables

Dynamic Initializing Variables

Variables Declaration

Global Declaration

Local Declaration

Rules for Constructing variable names.

Decision Control Structure

Decision making with:

If

If-else

Else-if ladder

Nested if

Multiple statements within If

Use of Logical operators

Logical AND

Logical OR

Logical NOT

Use of Conditional Operator

About Conditional Operator

Need of Conditional Operator

Difference between if and Conditional operator

Case Control Structure

About switch case

Using switch case instead If-else

Difference between Switch case & if-else

Using multiple switch for common

object

The GOTO Keyword

Operators & Expressions

What is operators & expressions?

Need of operators & expressions?

Short-Hand Operators

Types of operators.

Assignment Operator

Arithmetic Operators

Relational Operators or Comparison Operators

Logical operators

Increment and Decrement

operators

Prefix

Postfix

Ternary Operator

Sizeof operator

Dott (.) Operator

Other Operators

Using BODMAS with different operators

Loop Control Structure

What is LCS?

Need of Looping?

Using Different types of Loop

While

Do..While

For

Nested Loop

Odd Loop

Making decision with loop

Functions

What is Functions?

Need of Functions?

Scope of Functions & Variable

Local & Global

Types of Functions

In-Built Functions

User Defined Functions

Passing values between functions

Calling Methods

Using Call by Value

Using Call by Reference

Recursion & Stack

Adding functions to Library

Pointers

About Pointers

Use of Pointers

Pointer variables

Using Pointer operators

& - Address of operator

*- Value at address

Pointer Arithmetic

Some important points while using pointers

Arrays & Strings

About Arrays

Need of Arrays

Types of Arrays

Single Dimension (1d) Array

Two-D (2D) Dimensional Array

Multi-Dimensional Array

Arrays Initialization

Dynamic Array Initialization

Memory Map of Single & Multiple Dimensional Array

Storing Data into Arrays

Retrieving Data from Arrays

Bounds Checking

Passing Arrays Elements to a Function

Pointers and Arrays

Passing an Entire array into function

Array of Pointers

About Strings

Use String Functions

Strcmp, Strcat, Strcpy etc.

Limitation of Array of Pointers and Strings

Structures

- What is Structure?
- Using Structure?
- Declaring a structure
- Accessing Structure Elements
- Storing Elements into Structure
- Array of Structures
- Additional Features of Structure

File Opening Modes

“a”

“w”

“r”

“a+”

Record I/O in Files

Text files and Binary Files

Database Management into C++

A Console Input/Output

- Types of I/O
- Formatted I/O
- Console I/O Functions

Using Data Types Modifiers

- Short
- Long
- Double
- Signed
- Unsigned

File Management System

- Data organization

File Operations

- Opening a File
- Closing a file
- Reading a file
- Copy a file
- Writing Character into file
- Trouble in opening file