# **Course Contents of C**

### Introduction

- The C Language and its Advantages.
- > The Structure of a C Program.
- Constants, variables & Keywords in C.
- ➤ Data Types.
- > C instruction set.
- Writing C Programs.
- Examining and Running a C Application Program.

### The decision control structure

- The 'if' Statement.
- > Relational operators.
- > The 'if-else' Statement.
- ➤ Nested 'if-else'.
- ➤ Logical operators.
- The 'else if' clause.
- > The conditional operators.

### The loop control structure

- The 'while' loop.
- The 'for' loop.
- > The 'do-while' loop.
- > The 'break' statement.
- > The 'continue' statement.

#### The case control structure

- > The switch-case statement.
- > Switch versus if-else ladder.

### **Functions & Pointers**

- > The fundamentals of C Functions.
- ➤ Passing Values between Functions.
- > Function Prototypes.
- Call by Value and Call by Reference.
- > An Introduction to Pointers.

- > Pointer Notation.
- > Recursion.

## **Storage Classes in C**

- > Automatic Storage Class.
- > Register Storage Class.
- > Static Storage Class.
- > External Storage Class.
- Which to Use When.

## The C Preprocessor

- ➤ Macro Expansion.
- ➤ Macros with Arguments.
- > Macros versus Functions.
- File Inclusion.

### **Arrays, Strings & Structures**

- Declarations.
- > Initializations.
- ➤ Usage.

# **Operation on Files**

- File basics.
- > *File operations.*

### Miscellaneous

- *Bitwise operators.*
- *Enum data types.*
- > Unions.
- > Type casting.
- Some standard library functions & their usage.

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