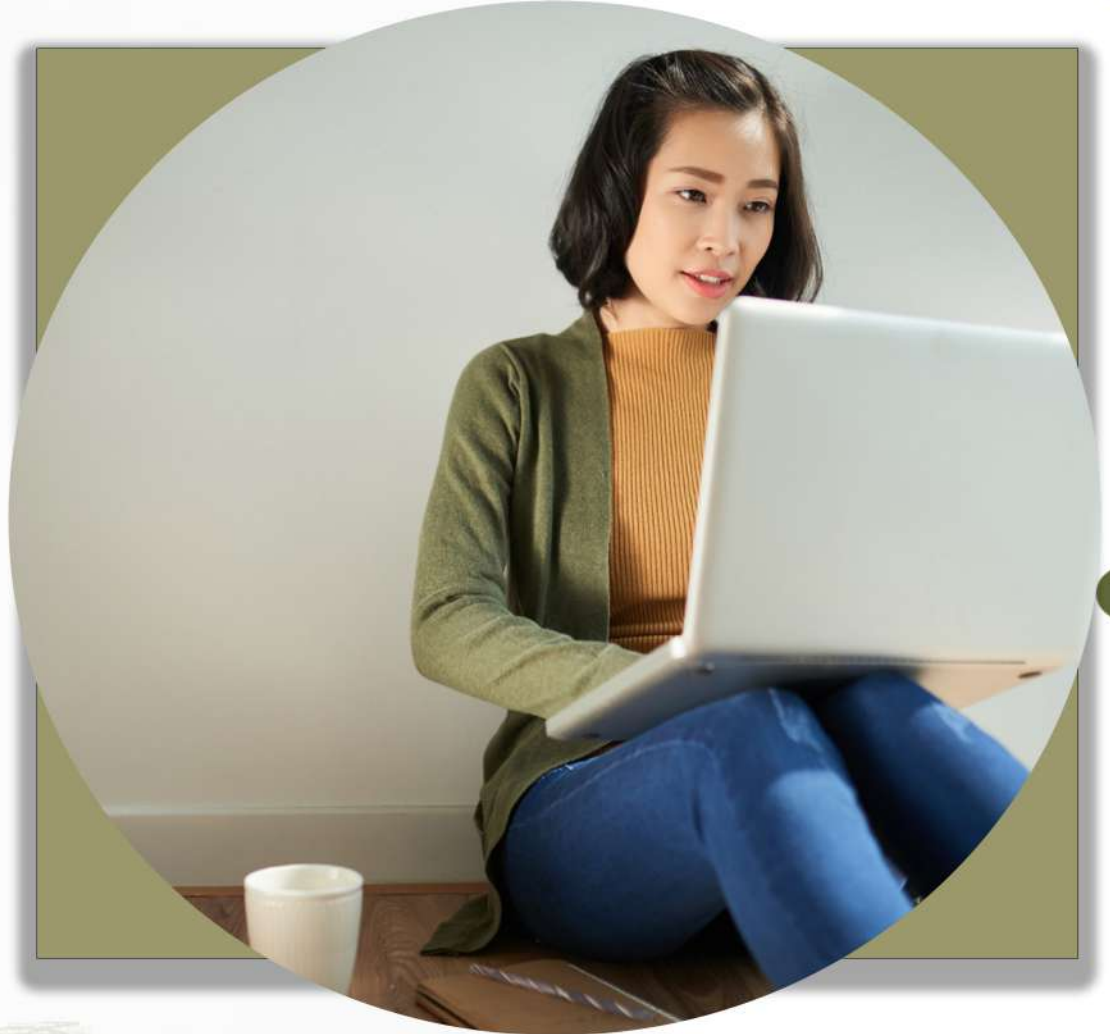


C Programming Language

Zetlan Technologies



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Online Learning Course

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Learn C and discover the limitless possibilities of embedded systems, networking, and more!

Course Modules

C Language

- Introduction to C
- History of C
- Features of C
- Application areas of C
- Execution flow of C program
- Other translators
- Structure of C program with example
- Keywords

Basic Concepts

- Tokens
- Identifiers
- Constants
- Variables
- Data types
- Input and output functions
- Qualifiers
- Modifiers
- Escape sequences

Operators and Expressions

- Arithmetic operators
- Relational operators
- Logical operators
- Assignment operators
- Increment & Decrement operators
- Conditional/ternary operator
- Bitwise operator
- Size of operator
- Comma operator
- Operators' Precedence and associativity
- Expressions
- Evaluation of expressions

Control Structures

- While
- For
- Do.. While
- Goto Statement
- Break and Continue Statement

Control/Decision-Making Statements

- Simple if
- if..else
- Nested if
- if..else ladder
- Switch..Case statement

Math.h Library

- abs(int x)
- floor()
- ceil()
- sqrt()
- pow()
- exp()
- log() and etc....

Arrays

- Introduction to arrays
- Types of arrays
- 1d array
- 2d array (matrix)

String.h library

- strlen(str)
- strcpy(des_str, src_str)
- strcat(desc_str, src_str)
- strrev(str)
- strcmp(str1, str2)
- strlwr()
- strupr()

Functions

- Function types
- Built-in functions
- User-defined functions
- Recursive functions
- call by value and call by reference

Recursions

- Find the factorial of a given number by using a recursive function
- Find the sum of first n natural numbers by using recursion
- Find the gcd of two numbers by using recursion
- Find the root digit of the number by using recursion
- Program to calculate the power using recursion

Storage classes

- Auto
- Static
- Extern
- Register

User defined datatypes

- Structure
- Union
- enum
- typedef





Pointers

- Pointer types
- Void pointer
- Null pointer
- Wild pointer
- Dangling pointer
- Array of pointers
- Pointer to pointer
- Pointer arithmetic

Dynamic Memory Allocation

- malloc()
- calloc()
- realloc()
- free()

Files

- Concept of a file
- Streams
- Text File and Binary Files
- Opening and closing files
- File input/output functions
- Formatted input-output functions
- Character input-output functions