

Introduction to C Programming

- BASICS,
 - FEATURES,
 - FIRST PROGRAM
-

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What is C Programming?

- Developed by **Dennis Ritchie** at Bell Labs in **1972**
- General-purpose, procedural programming language
- Foundation for many modern languages (C++, Java, Python)

Features of C Language

- Simple and efficient
- Fast execution
- Low-level memory access
- Rich set of built-in operators
- Portable and machine-independent
- Modular and structured language

Structure of a C Program

- Header files
- main() function
- Variable declarations
- Statements and expressions
- Comments

SAMPLE PROGRAM

```
#include <stdio.h>
```

```
int main() {  
    printf("Hello, World!");  
    return 0;  
}
```

Basic C Syntax

- Keywords
- Identifiers
- Data types
- Constants and variables
- Operators
- Semicolons and curly braces

Data Types and Variables

- **Primary types:** int, float, char, double
- **Declaration syntax:** `int a = 10;`
- **Type modifiers:** short, long, signed, unsigned

Applications of C

Operating systems (e.g., UNIX)

Embedded systems

Compilers and interpreters

System-level programming

Thank You