Dr.SNS RAJALAKSHMI COLLEGE OF ARTS AND SCIENCE

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DEPARTMENT OF COMPUTER SCIENCE

21UCU401 : PROGRAMMING IN C

I YEAR - I SEMESTER

UNIT 1 – INTRODUCTION

TOPIC: Introduction to C, Getting started with C

✓**Introduction : C**

✓**Facts about C language**

✓**Uses of C Programming**

✓**Why C was popular ?**

✓**Features of C Programming**

✓**Advantages and Disadvantages**

✓**History of C Language**

✓**Why we learn C language?**

Introduction : C

Basic Computer Language

❑C is a powerful general-purpose programming language.

❑It can be used to develop software like operating systems, databases, compilers, and so on.

❑C programming is an excellent language to learn to program for beginners.

Contd.

- C is a programming language developed at AT & T's Bell Laboratories of USA in 1972.

- It was designed and written by a man named Dennis Ritchie.

- In the late seventies C began to replace the more familiar languages of that time like PL/I, ALGOL, etc

- ANSI C standard emerged in the early 1980s, this book was split into two titles: The original was still called Programming in C, and the title that covered ANSI C was called Programming in ANSI C.

Facts about C Language

- ✓ In **1988**, the **American National Standards Institute (ANSI)** had formalized the C language.

- ✓ C was invented to write **UNIX** operating system.

- ✓ C is a successor of 'Basic Combined Programming Language' (BCPL) called **B language.**

- ✓ **Linux OS**, **PHP**, and **MySQL** are written in C.

- ✓ C has been written in assembly language.

Uses of C Programming Language

C was used for developing system applications, e.g. :

Database System

Language Interpreters

Compilers and Assemblers

Operating System

Network drivers

Word processors

Why C was popular ?

✓ One of the early programming languages.

✓ Still, the best programming language to learn quickly.

✓ C language is reliable, simple, and easy to use.

✓ C language is a structured language.

✓ Modern programming concepts are based on C.

✓ It can be compiled on a variety of computer platforms.

Features of C Programming Language

❑ C is a robust language with a rich set of built-in functions and operators.

❑ Programs written in C are efficient and fast.

❑ C is highly portable; programs once written in C can be run on other machines with minor or no modification.

❑ C is a collection of C library functions; we can also create our function and add it to the C library.

❑ C is easily extensible.

Advantages of C Language

❑C is the building block for many other programming languages.

❑Programs written in C are highly portable.

❑Several standard functions are there (like in-built) that can be used to develop programs.

❑C programs are collections of C library functions, and it's also easy to add functions to the C library.

❑The modular structure makes code debugging, maintenance, and testing easier.

Disavantages of C language

❑C does not provide Object Oriented Programming (OOP) concepts.

❑There are no concepts of Namespace in C.

❑C does not provide binding or wrapping up of data in a single unit.

❑C does not provide Constructor and Destructor.

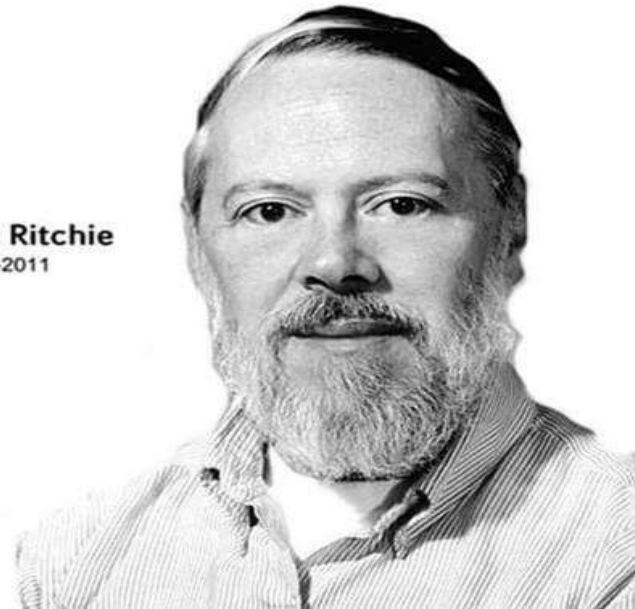# History of C language

✓C was developed and written by **Dennis M. Ritchie** in the year 1972, and hence he is known as the founder of C.

✓He is also called <u>father of C</u> .

Dennis Ritchie
1941-2011

History of C contd.

ALGOL 1960

BCPL 1967

B 1970

C 1972

K&R C 1978

ANSI C 1989

ANSI/ISO C 1990

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Why we learn C language?

- 'C' is a base language for many programming languages. So, learning 'C' as the main language will play an important role while studying other programming languages.

- 'C' is a structured programming language in which program is divided into various modules.

- 'C' contains 32 keywords, various data types and a set of powerful built-in functions that make programming very efficient.

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