### Digital Learning Hub\_

## Certificate of participation

Issued to : Tanja DOUCIN

Title of the course :

#### **Programming in C: From Basics to Advanced**

Date of the course : from 20.01.2025 to 23.01.2025

Hours of training : 20 (100 %)

Attendance rate : 100 %

Esch-sur-Alzette: 27 January 2025

Dr. Serge Linckels

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# Programming in C: From Basics to Advanced

### Content:

Introduction to the C Programming Language

Elements of a C Program

**Executing C Programs** 

Data Types and Classifications: Primary, Derived, and User-

Defined

Variables

Operators

Input and Output in C

Control Flow Statements

**Functions** 

**Pointers** 

Strings

Arrays

Memory Management

Working with Files

Dealing with errors - Debugging

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### **Learning Outcomes:**

Upon completing this course, learners will be able to:

Write clean, well-structured C programs.

Develop memory-efficient algorithms.

Design program logic to solve common IT problems.

Work with pointers and memory addresses effectively.

Manage strings and arrays within C programs.

Interact with files for various applications.

Interpret and create flowcharts to visualize program logic and structure.

**Dr. Serge Linckels**Deputy Director for the Vocational and Educational Training