

Structures in C

13.Explain the concept of structures in C. Describe how to declare, initialize, and access structure members.

- A **structure** is a user-defined data type that groups together different variables under a single name.
 - **Declaring a Structure:**
 - A structure is declared using the struct keyword followed by the structure name and the members inside curly braces {}. Here's the basic syntax for declaring a structure:
 - `struct structure_name {`
 - `data_type member1;`
 - `data_type member2;`
 - `// Other members`
 - `};`
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➤ Initializing a Structure:

➤ **1. Initialization during declaration:**

➤ `struct Student student1 = {"John", 20, 85.5};`

➤ **2. Initialization after declaration:**

➤ `struct Student student1;`

➤ `strcpy(student1.name, "John");`

➤ `student1.age = 20;`

➤ `student1.grade = 85.5;`

➤ **Accessing Structure Members:**

➤ You access structure members using the **dot operator (.)**.

➤ **Example:**

➤ `printf("Name: %s\n", student1.name);`

➤ `printf("Age: %d\n", student1.age);`

➤ `printf("Grade: %.2f\n", student1.grade);`
