https://youtu.be/Bq0sMTcgtqs - video analogy

Based on the technical distinctions provided in the sources—specifically that **declaration** informs the compiler of a variable's type without allocating memory, while **definition** actually allocates the storage space 1, 2—here is an analogy relatable to Indian students.

The "Exam Hall" Analogy

Imagine you are going to an exam centre for your board exams or entrance tests:

- **Declaration (The Notice Board List):**When you arrive at the centre, you see a list pasted on the wall outside. It has your name and roll number on it.
- This list tells the authorities that a student with your name **exists** and describes your **type** (e.g., Class 12, Science stream).
- However, the list on the wall is **not** the physical space where you sit. It takes up no room in the actual exam hall.
- Just as you can declare a variable multiple times 3, this list might be pasted at the main gate, on the corridor wall, and outside the classroom door.
- **Definition (The Actual Desk):**When you walk inside the room, you find the specific desk and chair marked with your roll number.
- This is the **definition**. It is the actual physical space **allocated** for you to occupy 1.
- Just as a variable must be defined exactly once 3, there is only **one** physical desk allocated for you. You cannot sit at two desks simultaneously, nor can two students define the same desk space.