Copilot

Certainly! In C, an **enumeration** (or **enum**) is a user-defined data type used to assign names to integral constants. These named constants make programs easier to read and maintain. Let me explain further:

1. **Enum Declaration**:
   - To declare a new enumeration type, use the `enum` keyword. Here's an example:
   - In this example, `State` is the name of the enumeration, and `Working` and `Failed` are the named constants with assigned values of 1 and 0, respectively.
2. **Default Values**:
   - If you don't explicitly assign values to enum names, the compiler assigns them starting from 0. For instance:
   - In this case, `sunday` gets value 0, `monday` gets 1, and so on.
3. **Interesting Facts**:
   - Two enum names can have the same value. For example:
   - Here, both `Failed` and `Freezed` have the same value of 0.
   - You can assign values in any order, and unassigned names get values based on the previous name plus one.
4. **Usage Example**:
   - Let's say we have an enum for days of the week:
   - You can use it like this:

Remember that enum constants must be unique within their scope, and their values must be integral constants. Enums are handy for improving code readability and organization!

![Enumeration in C]([object Object])

Source(s)

1. Enumeration (or enum) in C - GeeksforGeeks
2. C enumeration declarations | Microsoft Learn
3. C enum (Enumeration) - Programiz
4. Enumeration Types (GNU C Language Manual)