



# PROBLEM SOLVING WITH C

## UE23CS151B

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## Enums(Enumerations) in C

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## Enumerations

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- Introduction
- Enum creation
- Points wrt Enums
- Demo of Enums in C

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### Introduction

- A way of creating user defined data type to assign names to integral constants. Easy to remember names rather than numbers
- Provides a symbolic name to represent one state out of a list of states
- The names are symbols for integer constants, which won't be stored anywhere in program's memory
- Used to **replace #define chains**

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### Enum creation

- **Syntax:**

```
enum identifier { enumerator-list };    // semicolon compulsory  
                                         // identifier optional
```

- Example:

```
enum Error_list { SUCCESS, ERROR, RUN_TIME_ERROR, BIG_ERROR };
```

- Coding Examples

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### Points wrt Enums

- Enum names are automatically assigned values if no value specified
- We can assign values to some of the symbol names in any order. All unassigned names get value as value of previous name plus one.
- Only integer constants are allowed. Arithmetic operations allowed-> + , - , \* , / and %
- Enumerated Types are Not Strings. Two enum symbols/names can have same value
- All enum constants must be unique in their scope. It is not possible to change the constants
- Storing the symbol of one enum type in another enum variable is allowed
- One of the short comings of Enumerated Types is that they don't print nicely

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- Demo of Enum points discussed in the previous slide



# THANK YOU

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