

Enumeration datatype:-

- * Enumeration (or) Enum is a special kind of datatype defined by user.
- * It consists of constant integers or integers that are given names by user.
- * The keyword **enum** is used to declare an enumeration.

Syntax:

```
enum enum_name { const1, const2, ... };
```

- * In the above syntax, the default value of `const1` is 0, `const2` is 1, `const3` is 2 and so on.
- * However, you can also change these default values while declaring the enum.

Example:

```
enum cars { BMW, Ferrari, Jeep };
```

Here the default values for the constants are `BMW=0`, `Ferrari=1` and `Jeep=2`

- * However to change the default values, you can define the enum as follows

```
enum cars { BMW=3, Ferrari=6, Jeep=10 };
```

Enumerated Type declaration to create a variable:-

- * Similar to predefined datatypes like `int`, `float`, `char` etc, you can also declare a variable for enum and other user defined datatypes.

Example to create an enum variable

(i) `enum condition { true, false };` // declaring the enum

(ii) `enum condition E;` // creating a variable of type condition.

* Suppose we have declared an enum type named Condition
We can create a variable for the that data type as
mentioned above.

* We can also convergence both the statements and write
them as.

enum Condition (true, false) e;

default Value:

true - 1, false - 0

* Example:

Print the values for weekdays

```
#include <stdio.h>
```

```
enum days { Sunday = 1, Monday, Tuesday, Wednesday,  
Thursday, Friday, Saturday };
```

```
int main ()
```

```
{ // Printing the values of weekdays  
for (int i = Sunday; i < Saturday; i++)
```

```
{ printf("%d", i);
```

```
}
```

```
return 0;
```

```
}
```

Output:

1, 2, 3, 4, 5, 6, 7