

Programming **Fundamentals**

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SECTION 1:

TERNARY OPERATOR

Ternary Operator

- The ternary operator is a shorthand way of writing an if-else statement in C.
- It takes three operands (hence the name ternary):

```
condition ? expression_if_true : expression_if_false;
```

- Meaning:
 - **If condition is true, it executes expression_if_true.**
 - **If condition is false, it executes expression_if_false.**
- It is often called a **conditional operator**.

Syntax

```
if (age >= 18)  
    status = "Adult";  
else  
    status = "Minor";
```



```
status = (age >= 18) ? printf("Adult") :  
    "Minor";
```

QUICK PRACTICE:

Example 1: Even or Odd

**Example 2: Find Maximum of
Two Numbers**

**Example 3: Pass or Fail (marks
greater than or equal to 50)**

SECTION 2:

IF-ELSE, NESTED IF-ELSE,

LADDER IF-ELSE IF

QUESTIONS

Interactive Challenge 1: Leap Year Checker

Problem:

Write a program that takes a year as input and checks if it is a leap year.

A year is a leap year if:

- It is divisible by 400, OR**
- It is divisible by 4 but not divisible by 100.**

Interactive Challenge 2:Triangle Type Identifier

Problem:

Write a program that takes three sides of a triangle and determines if it is:

- **Equilateral (all sides equal)**
- **Isosceles (two sides equal)**
- **Scalene (all sides different)**
- **Also check whether it forms a valid triangle (sum of two sides > third side).**

Interactive Challenge 3: Electricity Bill Calculator

Problem:

Write a program to calculate electricity bill based on units consumed:

- First 100 units → Rs. 5 per unit
- Next 100 units (101–200) → Rs. 7 per unit
- Above 200 units → Rs. 10 per unit

Interactive Challenge 4: Character Classification

Problem:

Write a program to check whether a given character is:

- An uppercase letter
- A lowercase letter
- A digit
- A special character

SECTION 3:

LEETCODE



Thank You