

## 1. The Gatekeeper (Basic Comparison)

**Goal:** Create a program that determines if a user is old enough to enter a venue.

- **The Task:** Prompt the user for their age.
  - If they are **18 or older**, print "Access Granted."
  - If they are **under 18**, print "Access Denied."
- **Bonus:** Add a check for "VIP" status. If they are under 18 but have a `hasParentalConsent` boolean set to true, allow them in anyway.

## 2. The Grade Definer (Else-If Ladders)

**Goal:** Convert a numerical score into a letter grade.

- **The Task:** Take an integer input (0–100).
  - **90–100:** A
  - **80–89:** B
  - **70–79:** C
  - **60–69:** D
  - **Below 60:** F
- **Constraint:** Ensure your code handles "Invalid input" if the number is less than 0 or greater than 100.

### 3. Leap Year Calculator (Complex Logic)

**Goal:** Use the logical AND (`&&`), OR (`||`), and Modulo (`%`) operators to find leap years.

- **The Task:** A year is a leap year if:
  1. It is divisible by 4 **AND**
  2. It is **NOT** divisible by 100, **UNLESS** it is also divisible by 400.
- **Example:** 2000 was a leap year, 1900 was not, and 2024 was.

#### 4. The Triangle Validator (Nested Ifs)

**Goal:** Determine if three lengths can form a triangle and what kind it is.

- **The Task:** Input three integers representing side lengths.
  - First, check if they form a valid triangle (the sum of any two sides must be greater than the third side).
  - If valid, check if it is **Equilateral** (all sides equal), **Isosceles** (two sides equal), or **Scalene** (no sides equal).
- **Logic Tip:** Use nested if statements—one for validity, and inside that, another for the type.

## 5. Login System Simulation (Logical Operators)

**Goal:** Practice using the logical "NOT" (!) and string comparisons.

- **The Task:** Hardcode a username ("Admin") and a password ("SafePass123").
  - Ask the user for both.
  - If both match, print "Login Successful."
  - If the username is correct but the password is wrong, print "Incorrect Password."
  - If the username doesn't exist, print "User not found."