by Kunal Sir

✓ IF STATEMENT — 8 Problems (Simple → Moderate)

---

1 Check Voting Eligibility

Description:
A person can vote only if their age is 18 or more. Write a program that checks whether a user is old enough to vote.
Sample Input:

```
Enter age: 16
```

Sample Output:

```
You are not eligible to vote.
```

---

2 Check if Temperature is Hot

Description:
If the temperature is above 30°C, print "It is hot outside". Otherwise, do nothing.
Sample Input:

```
Enter temperature: 35
```

Sample Output:

```
It is hot outside.
```

---

3 Check if Number is Positive

Description:
Write a program that checks only if a number is positive. If yes, display a message.
Sample Input:

```
Enter number: 12
```

Sample Output:

```
The number is positive.
```

---

4 Check if Student Passed the Test

Description:
A student passes if their marks are 40 or more. Print a message only if they passed.
Sample Input:

```
Enter marks: 75
```

Sample Output:

```
You passed the test!
```

---

5 Check Free Delivery Eligibility

Description:
If a customer purchases more than ₹500 worth of items, they get free delivery.
Sample Input:

```
Enter total bill: 650
```

Sample Output:

```
You get free delivery!
```

---

6 Check if Speed Limit is Exceeded

Description:
If a car's speed is more than 80 km/h, show a warning.
Sample Input:

```
Enter speed: 95
```

Sample Output:

```
Warning! You are overspeeding.
```

---

7 Check If Water Level Is Low

Description:
If the water level in a tank is below 20%, show “Refill the tank”.
Sample Input:

```
Enter water level: 15
```

Sample Output:

```
Refill the tank.
```

---

8 Check if Battery Needs Charging

Description:
If the mobile battery percentage is below 10%, show “Battery low”.
Sample Input:

```
Battery: 8%
```

Sample Output:

```
Battery low.
```

IF–ELSE STATEMENT

---

1 Check Even or Odd

Description:
Write a program that checks if a number is even. If not, it is odd.
Sample Input:

```
Enter number: 9
```

Sample Output:

```
Odd number
```

---

2 Check Adult or Minor

Description:
If age is 18 or more → Adult
Else → Minor
Sample Input:

```
Enter age: 14
```

Sample Output:

```
You are a minor.
```

---

3 Compare Two Numbers

Description:
Write a program to check which number is greater.
Sample Input:

```
Enter a: 20
Enter b: 30
```

Sample Output:

```
30 is greater.
```

---

4 Check Temperature: Hot or Cold

Description:
If temperature ≥ 25 → Hot
Else → Cold
Sample Input:

```
Temperature: 18
```

Sample Output:

```
It is cold.
```

---

5 Check Login Password

Description:
If the password matches "admin123", show “Login success”, otherwise “Login failed”.
Sample Input:

```
Enter password: admin123
```

Sample Output:

```
Login success
```

---

6 Check Student Pass/Fail

Description:
Marks ≥ 40 → Pass
Else → Fail
Sample Input:

```
Enter marks: 33
```

Sample Output:

```
Fail
```

---

7 Check Discount Eligibility

Description:
If shopping amount ≥ ₹1000 → discount
Else no discount
Sample Input:

```
Amount: 750
```

Sample Output:

```
No discount available.
```

---

8 Check If Number is Zero or Not

Description:
If number = 0 → print zero
Else → print not zero
Sample Input:

```
Number: 0
```

Sample Output:

```
The number is zero.
```

ELSE–IF LADDER

---

1 Grade Checker

Description:
Based on marks, give grade:

- ≥ 90 → A
- ≥ 75 → B
- ≥ 50 → C
- Else → D
  Sample Input:

```
Marks: 82
```

Sample Output:

```
Grade B
```

---

2 Water Temperature Checker

Description:

- temp < 0 → Freezing
- temp 0–20 → Cold
- temp 21–35 → Warm
- temp > 35 → Hot

Sample Input:

```
Temperature: 10
```

Sample Output:

```
Cold
```

---

3 Day Classification

Description:
Given a day number:
1 → Monday
2 → Tuesday
…
Else → Invalid
Sample Input:

```
Enter day: 5
```

Sample Output:

```
Friday
```

---

4 Speed Category

Description:
Speed:
0–40 → Slow
41–80 → Moderate
81–120 → Fast

120 → Very Fast
Sample Input:

```
Speed: 95
```

Sample Output:

```
Fast
```

---

5 BMI Category

Description:
BMI ranges:

- < 18.5 → Underweight
- 18.5–24.9 → Normal
- 25–29.9 → Overweight
- ≥ 30 → Obese
  Sample Input:

```
BMI: 27
```

Sample Output:

```
Overweight
```

---

6 Electricity Bill Slab

Description:
Units:

- < 100 → ₹3 per unit
- 100–300 → ₹5
- 300 → ₹7

Sample Input:

```
Units: 160
```

Sample Output:

```
Bill: 800
```

---

7 Movie Ticket Price

Description:
Age-based price:

- < 12 → ₹100
- 12–18 → ₹150
- 18 → ₹200

Sample Input:

```
Age: 15
```

Sample Output:

```
Ticket Price: ₹150
```

---

8 Internet Speed Classification

Description:
Speed:

- < 5 Mbps → Very Slow
- 5–20 Mbps → Normal
- 20–50 Mbps → Fast
- 50 Mbps → Super Fast
  Sample Input:

```
Speed: 34 Mbps
```

Sample Output:

```
Fast
```

NESTED IF–ELSE

---

1 Check Age and Citizenship for Voting

Description:
First check if age ≥ 18.
Inside that, check if the person is an Indian citizen.
Sample Input:

```
Age: 22
Citizen: yes
```

Sample Output:

```
You are eligible to vote.
```

---

2 ATM Withdrawal Validation

Description:
Steps:

- Check if amount is multiple of 100
  - If yes, check if balance is sufficient
    Sample Input:

```
Withdrawal: 500
Balance: 400
```

Sample Output:

```
Insufficient balance.
```

---

3 Online Exam Login

Description:

- Check username
  - If correct, check password
    Sample Input:

```
Username: student
Password: 12345
```

Sample Output:

```
Login successful.
```

---

4 Check Weather Safety

Description:

- Check rain (yes/no)
  - If raining, check if you have an umbrella
    Sample Input:

```
Raining: yes
Umbrella: no
```

Sample Output:

```
You cannot go outside.
```

---

5 Admission Eligibility

Description:

- Check if marks ≥ 60
  - Inside, check if entrance exam score ≥ 50
    Sample Input:

```
Marks: 70
Exam Score: 45
```

Sample Output:

```
You are not eligible.
```

---

6 Product Discount Check

Description:

- Check if product price ≥ 1000
  - If yes, check if user has coupon
    Sample Input:

```
Price: 1200
Coupon: yes
```

Sample Output:

```
Discount applied.
```

---

7 Delivery Availability

Description:

- Check if location is within delivery area
    - If yes, check if delivery boy is available
      Sample Input:

```
Area: Yes
Delivery Boy: No
```

Sample Output:

```
Delivery not possible right now.
```

---

8 Smartphone Unlock

Description:

- Check if PIN correct
    - If yes, check fingerprint match
      Sample Input:

```
PIN: correct
Fingerprint: wrong
```

Sample Output:

```
Unlock failed.
```
