17/07/2025,Thursday,Practice

5 Real-World Conditional Logic Questions Using Nested Conditions

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✅Question 1: YouTube Video Quality Selection

Scenario: A user is watching a YouTube video and the platform must select the appropriate video quality based on two conditions: - Internet speed - Whether the user selected "Auto" mode or manual mode.

⬜**Logic Steps**: - Ask if the user selected "Auto" or "Manual" mode. - If "Auto": - If internet speed > 10 Mbps * Play 1080p - Else if speed > 5 Mbps → Play 720p - Else if speed > 2 Mbps → Play 480p - Else → Play 240p - If "Manual": - Ask for selected quality (e.g., 240p, 480p, 720p, 1080p) - Play the selected quality

Expected Understanding: Learn to handle multiple nested conditions and simulate real-time decision logic.

```
mode = input("Enter your mode (auto/manual): ").lower()

if mode == "auto":
    speed = int(input("Enter your internet speed in Mbps:- "))
    if speed > 10:
        print("Playing video in 1080p")
    elif speed > 5:
        print("Playing video in 720p")
    elif speed > 2:
        print("Playing video in 480p")
    else:
        print("Playing video in 240p")

elif mode == "manual":
    quality = input("Enter your preferred quality (240p, 480p, 720p, 1080p): ")
    print(f"Playing video in your selected quality ",quality")

else:
    print("Invalid mode. Please enter 'auto' or 'manual'.")
```

```
op: Enter your mode (auto/manual): auto
    Enter your internet speed in Mbps: 66
    Playing video in 1080p
```

✅Question 2: Hotstar Subscription Plans

Scenario: Based on the user's subscription type and payment status, show what content they can access.

⬜ **Logic Steps**: - Ask for subscription type: Free, Super, or Premium - Ask for payment status: Active or Expired - If subscription is Free: - Allow only basic content - If subscription is Super: - If Active → Allow sports + series (with ads) - If Expired → Show message to renew - If subscription is Premium: - If Active → Allow all content (no ads) - If Expired → Show message to renew

Expected Understanding: Apply if-elif-else within multiple levels and handle real-world choices.

```
hotstar = input("enter your subscription type(Free, Super, or Premium):- ")
status = input("enter your subscription Status (Active, Expired):-  ")
if status == "Active":
    if hotstar == "Free":
        print(" It allow only basic content")
    elif hotstar == "Super":
        print("Allow sports + series (with ads)")
    elif hotstar == "Premium":
        print("Allow all content witout ads")
    else:
        print("your Account is not active")
elif status == "Expired":
        print("your plan is expired please recharge")
else:
    print(" choose correct plan (Free, Super, or Premium)")
```

```
o/p :  enter your subscription type(Free, Super, or Premium):- Super
        enter your subscription Status (Active, Expired):-
         your plan is expired
```

✅Question 3: Bank Loan Approval System

Scenario: A bank checks whether a person is eligible for a loan based on credit score and salary.

⬜ **Logic Steps**: - Ask user for credit score - If credit score >= 750: - Ask for monthly salary - If salary >= ₹30,000 → Approve Loan - Else → Ask to increase income - Else if credit score between 600-749: - Ask for co-applicant - Else if credit score < 600: - Reject application

Expected Understanding: Apply numeric ranges and combine them with nested conditions.

```
credit_score = int(input("enter your credit score:- "))

if credit_score >= 750:
    salary = int(input("enter your current salary:-  "))
    if salary >= 30000:
```

```
            print(" your loan is approved")
        else:
            print("increase your salary")
    elif credit_score >= 600 and credit_score <= 749 :
        co_app = input("Ask for co-applicant(yes or no):- ")
        if co_app == "yes":
            print("application in progress")
        else:
            print("not approved try after some time")
    else:
        print("Your loan is rejected")
```

o/p: enter your credit score:- 666
Ask for co-applicant(yes or no):- no
not approved

✅Question 4: Swiggy – First-Time Order Offer

Scenario: Swiggy wants to apply different discounts or free delivery based on whether the user is placing their first order and the cart value.

⬜**Logic Steps**: - Ask the user: "Is this your first order?" (Yes or No) - If Yes: - If cart value ≥ ₹149 → Apply "Free Delivery + 20% Off" - Else → Apply "Only Free Delivery" - If No: - If cart value ≥ ₹199 → Apply "₹50 Off" coupon - Else → "No offer applicable, add more items!"

> **Expected Understanding**: Use of if, elif, and else with nesting, and real-world decision-making logic.

```
user = input("Is this your first order? (yes or no):-" )

if user == "yes":

    cart_value = int(input("enter your cart value:- "))

    if cart_value >= 149:

        print(" Apply free delivery + 20% off")

    else:

        print("Apply only free delivery ")

elif user == "no":

    cart_value = int(input("enter your cart value:- "))

    if cart_value >= 199:
```

```
        print("Apply ₹50 off coupon")
    else:
        print("Add more items")
else:
    print("please enter (Yes or No)only  ")
```

o/p: Is this your first order? (yes or no):-yes

enter your cart value:- 66

Apply only free delivery

✅Question 5: E-commerce Offer Eligibility

Scenario: A user qualifies for a discount based on cart value and whether they are a first-time buyer.

⬜ **Logic Steps**: - Ask if user is a first-time buyer (Yes or No) - Ask for cart total - If first-time buyer: - If cart ≥ ₹1000 → 30% discount - Else → 10% discount - If not a first-time buyer: - If cart ≥ ₹2000 → 15% discount - Else → No discount

Expected Understanding: Simulates nested offers and personalization logic.

```
user = input("Is this your first order? (yes or no):-" )
if user == "yes":
    cart_value = int(input("enter your cart value:- "))
    if cart_value >= 1000:
        print("30% discount")
    else:
        print("10% discount ")
elif user == "no":
    cart_value = int(input("enter your cart value:- "))
    if cart_value >= 2000:
        print("15% discount")
    else:
        print("No discount")
else:
    print("please enter (Yes or No)only  ")
```

o/p= Is this your first order? (yes or no):-no
enter your cart value:- 8880
15% discount
