



# Conditional Logic Examples in Programming

## Student Grade and Scholarship Eligibility

Ask for marks and age.

- If marks are 90 or more
  - Show "Grade A"
  - If age is less than 18 → Show "Eligible for scholarship"
- Else if marks are between 70 and 89
  - Show "Grade B"
  - If age is greater than 21 → Show "Try again next year"
- Else → Show "Fail"

## Login System with Device Check

Ask if user is logged in {yes or no}, and device type {mobile or desktop}.

- If logged in
  - If from mobile → Show "Mobile Dashboard"
  - Else → Show "Desktop Dashboard"
- Else → Show "Please login"

## Nested Discount Offer

Ask for cart value, Prime status, and if coupon applied.

- If cart value is more than 500
  - If user is Prime → Show "20 percent discount"
  - Else
    - If coupon is applied → Show "10 percent discount"
    - Else → Show "5 percent discount"
- Else → Show "No discount"

## Temperature Analyzer

Ask for temperature and time of day.

- If temperature is more than 35
  - If time is afternoon → Show "Extreme Heat Warning"
  - Else → Show "Hot Weather"
- Else if temperature is between 25 and 35 → Show "Normal"
- Else → Show "Cold"

## Train Ticket Fare Calculator

Ask if destination is a metro city and whether the passenger is a senior or student.

- If destination is metro city
  - If passenger is senior → Show "40 percent off"
  - Else → Show "Full fare"
- Else
  - If passenger is a student → Show "50 percent off"
  - Else → Show "Full fare"

## Smart Greeting App

Ask for language {en, hi, fr} and time of day {morning or evening}.

Use switch on language:

- Inside each case
  - If morning → Show "Good Morning" in that language
  - Else → Show "Good Evening" in that language

## Currency Converter App

Ask for currency type {USD, EUR, INR} and amount.

Use switch on currency:

- Inside each case
  - If amount is more than 1000 → Add bonus amount
  - Else → Use standard conversion

## Role and Department Access Control

Ask for role {admin, manager, employee} and department.

Use switch on role:

- Inside each case
  - If department is HR → Show "Edit Access Granted"
  - Else → Show "View Only Access"

## Weather Advisory System

Ask for weather type {rainy, sunny, snow} and temperature.

Use switch on weather type:

- Inside each case
  - If temperature is below threshold → Show "Stay inside"
  - Else → Show "Wear protection"

## Mobile Plan Chooser

Ask for mobile plan {basic, standard, premium} and whether the user is a student.

Use switch on plan:

- Inside each case
  - If user is a student → Show "Extra student discount applied"
  - Else → Show "Standard pricing applied"

## Dynamic Offer Display

Ask the user for cart value and Prime status {yes or no}.

Display:

- If cart value is more than 1000
  - And user is Prime → Show "Free Delivery and 20 percent Discount"
  - Not Prime → Show "Free Delivery and 10 percent Discount"
- If cart value is between 500 and 1000
  - Prime → Show "10 percent Discount"
  - Not Prime → Show "Delivery Charge is 50 rupees"
- If cart value is less than 500 → Show "No Offers Available"

## Login System with 2-Step Verification

Ask for username, password, and OTP.

- If username and password are correct
  - And OTP is also correct → Show "Login Successful"
  - Else → Show "Invalid OTP"
- Else → Show "Invalid Credentials"

## Theme Changer with Auto Detection

Ask user to select theme option {light, dark, auto}.

- If user selects light → Show "Light Theme Applied"
- If user selects dark → Show "Dark Theme Applied"
- If user selects auto
  - And time is before 6 PM → Apply Light Theme
  - Else → Apply Dark Theme

## Course Recommendation System

Ask the user for age and area of interest {coding, design, marketing}.

- If age is less than 18 → Show "Try Beginner Bootcamp"
- Else use switch based on interest:
  - Coding → Show "Full Stack Development Course"
  - Design → Show "UI UX Design Course"
  - Marketing → Show "Digital Marketing Course"

## Language and Region Selector

Ask for preferred language {en, hi, fr, es} and region {India or Other}.

Use switch for language and if for region inside each case:

- If language is en and region is India → Show "Hello Namaste"
- If language is hi → Show "Namaste"
- If language is fr → Show "Bonjour"
- If language is es → Show "Hola"

## Delivery Time Estimator

Ask for product type {fragile, express, standard} and city type {metro or non-metro}.

Use switch for product type and if for city type:

- Fragile
  - Metro: 2 days
  - Non-Metro: 4 days
- Express
  - Metro: 1 day
  - Non-Metro: 2 days
- Standard
  - Metro: 3 days
  - Non-Metro: 5 days

## Bill Splitter with Promo Logic

Ask for total bill amount, number of people, and promo code {FLAT50 or PERCENT10}.

- If promo is FLAT50 → Subtract 50 rupees from total
- If promo is PERCENT10 → Subtract 10 percent from total
- Else → No discount

Then divide the final amount equally among people and show the per-person amount

## Multi-Currency Checkout with Promo

Ask for amount, currency {INR, USD, EUR}, and promo code. Use switch on currency, then use if for promo code:

- FLAT100 → Subtract 100 rupees or 10 dollars or 10 euros
- PERCENT10 → Apply 10 percent discount
- Show final payable amount in the selected currency

## Student Result and Feedback Generator

Ask for marks and section {A, B, C}.

- If marks are greater than 90
  - If section is A → Show "Outstanding in Section A"
  - If section is B → Show "Excellent in Section B"
- If marks are between 70 and 89 → Show "Good Performance"
- If marks are below 70 → Show "Needs Improvement"

## Age Group Greeting

Ask for age and gender {male or female}.

- If age is less than 13
  - If male → Show "Hey Young Boy"
  - If female → Show "Hey Little Girl"
- If age is between 13 and 19 → Show "Hello Teen"
- If age is 20 or more → Show "Welcome Adult"