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# Conditional Statements - II

A large, semi-transparent dark blue triangle is positioned on the left side of the slide, containing a glowing blue network graph with many nodes and connecting lines.

by  
CSA101 : Problem Solving with  
Programming

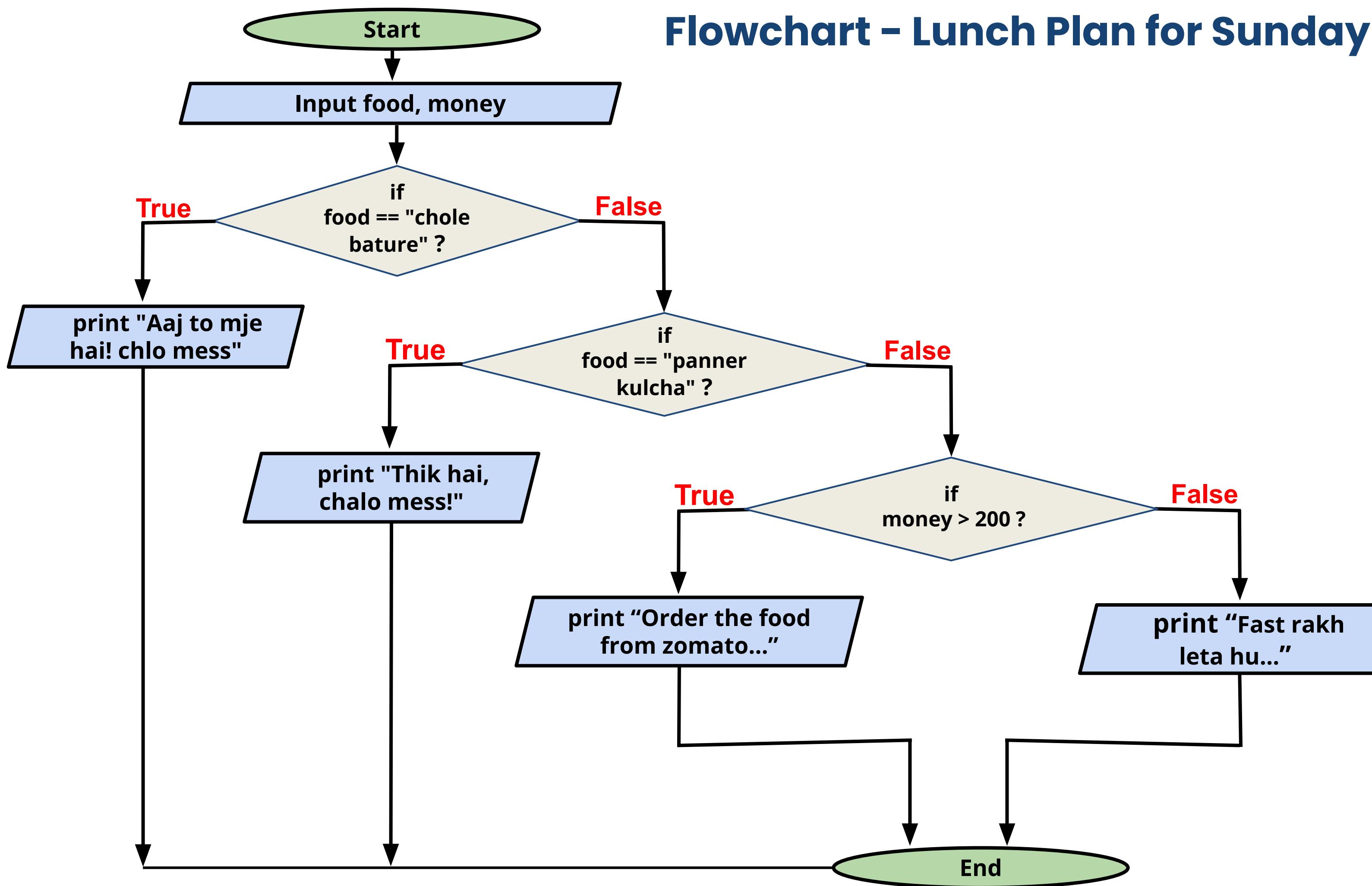
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# Lunch Plan for Sunday :



# Flowchart - Lunch Plan for Sunday :



# if-elif-else ladder:

## Syntax :

```
if condition_1:  
    # Code to execute if condition_1 is True  
elif condition_2:  
    # Code to execute if condition_2 is True  
elif condition_3:  
    # Code to execute if condition_3 is True  
else:  
    # Code to execute if all above conditions are False
```

# if-elif-else ladder - Example :

```
food = "Palak ki subzi"
money = 500

if food == "chola bature":
    print("Aaj to mje hai! chlo mess")
elif food == "panner kulcha":
    print("Thik hai, chalo mess!")
elif money > 200:
    print("Order the food from zomato...")
else:
    print("Fast rakh leta hu...")
```

INPUT	OUTPUT	ERROR
1	Order the food from zomato...	
2		

[Code Snippet](#)

# Question - 1 : The Number Detective

Given a number n, write a Python program to check whether the number n is positive, negative, or zero.

- Print Positive if n is greater than 0
- Print Negative if n is less than 0
- Print Zero if n is equal to 0

**Example 1 : Input n = 13**

**Output :**

**Positive**

**Example 2 : Input n = -13**

**Output :**

**Negative**

# Result day :

"The students are curious and excited to know their grades, eager to see how their hard work has paid off!", Lets find the Grade



## Question - 2 : Grade Calculator

Write a Python program that takes a student's score as input and prints their grade based on the following criteria:

### Grading Criteria:

- If the score is 90 or above, the grade is A.
- If the score is 80 or more but less than 90, the grade is B.
- If the score is 70 or more but less than 80, the grade is C.
- If the score is 60 or more but less than 70, the grade is D.
- If the score is less than 60, the grade is F.

**Example 1 : Input score = 85**

Output :

Grade B

**Example 2 : Input score = 60**

Output :

Grade D

# Advantages of if-elif-else ladder :

- Only one block runs if a condition is met
- Less conditions are required

## without if-elif-else ladder

```
marks = 75

if marks >= 90:
    print("Grade A")
if marks >= 80 and marks < 90:
    print("Grade B")
if marks >= 70 and marks < 80:
    print("Grade C")
if marks >= 60 and marks < 70:
    print("Grade D")
if marks < 60:
    print("Grade F")
```

## with if-elif-else ladder

```
marks = 75

if marks >= 90:
    print("Grade A")
elif marks >= 80 and marks < 90:
    print("Grade B")
elif marks >= 70 and marks < 80:
    print("Grade C")
elif marks >= 60 and marks < 70:
    print("Grade D")
else:
    print("Grade F")
```

All the conditions are checked even if only one condition is true.

Executes only the first true condition, skipping all other conditional blocks for efficiency.

# Login System :



# Can i think with if- elif- else ?



# Using if-elif-else with Logical Operators :

**For username = "admin" and password = "password123":**

- If both username and password match → **Login successful**
- If either username or password matches → **Check username or password**
- If neither username nor password matches → **Invalid credentials**

# Question - 3 : The Gatekeeper

**Write a Python program to simulate a simple login system. Login Details:**

- The correct username is admin.
- The correct password is password123.

**Input :** The program should take two inputs from the user:

**username , password**

**Output :** Based on the input, the program should print -

- Login successful — if both the username and password are correct.
- Check username or password — if only one of them is correct.
- Invalid credentials — if both are incorrect.

**Example 1 : Input admin  
password123**

**Output :** Login successful

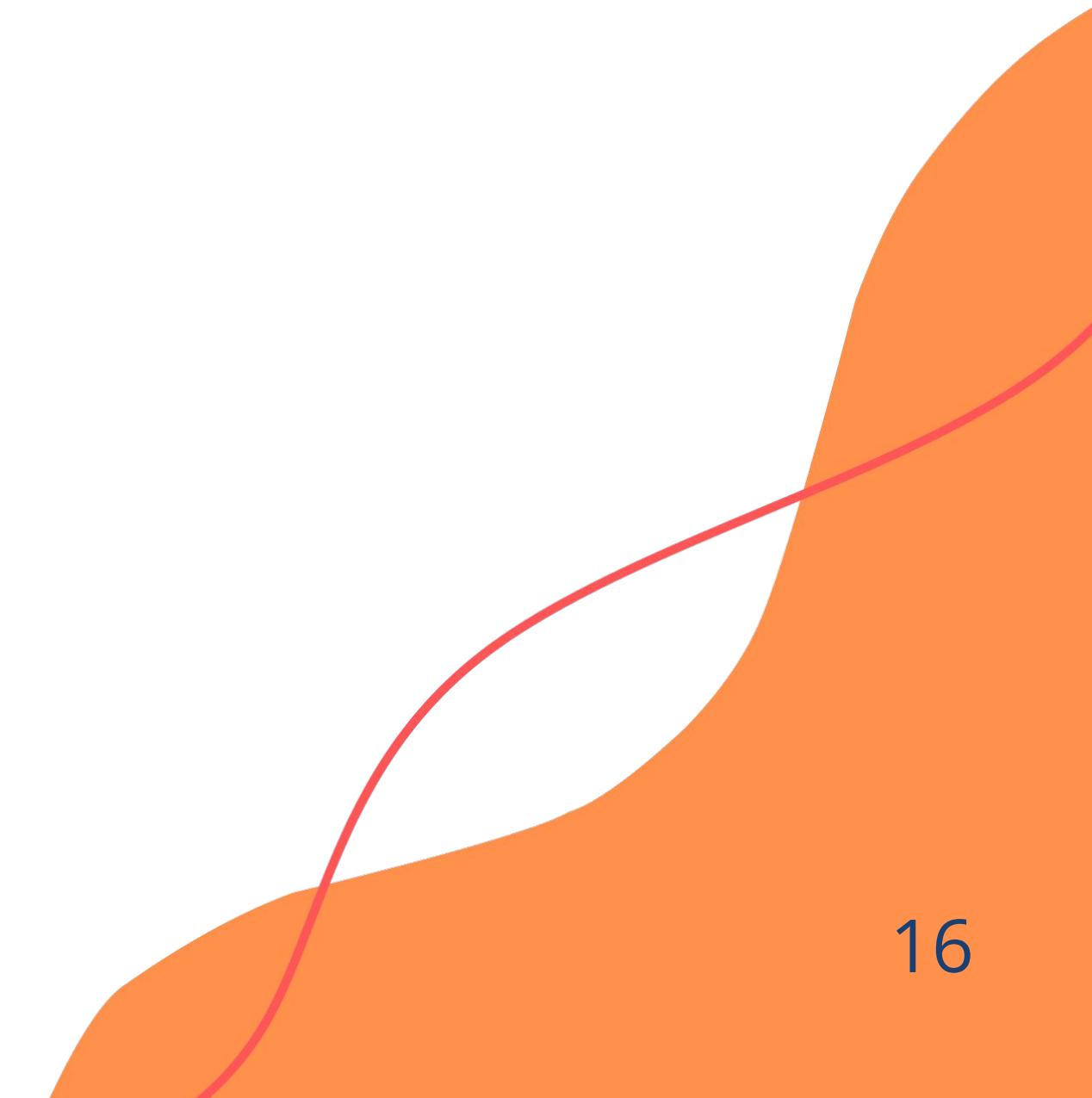
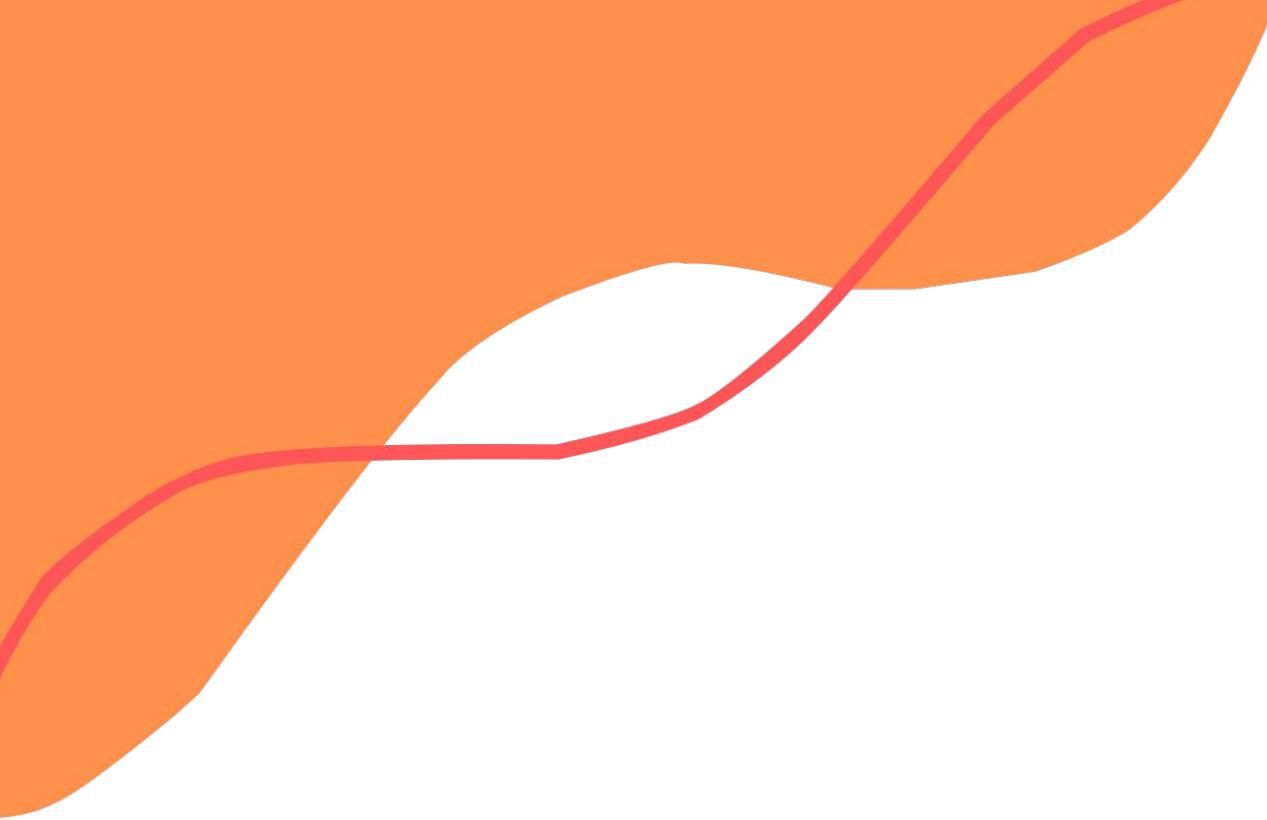
**Example 2 : Input admin  
wrongpass**

**Output :** Check username or password

# References :

## **Book\_1 : Intro to Python by Paul Deitel**

S.No.	Topic Name	Page No.
1.	if-elif-else ladder	83 - 84



# Quiz Time!

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**Please fill the feedback!**

# Thank You!

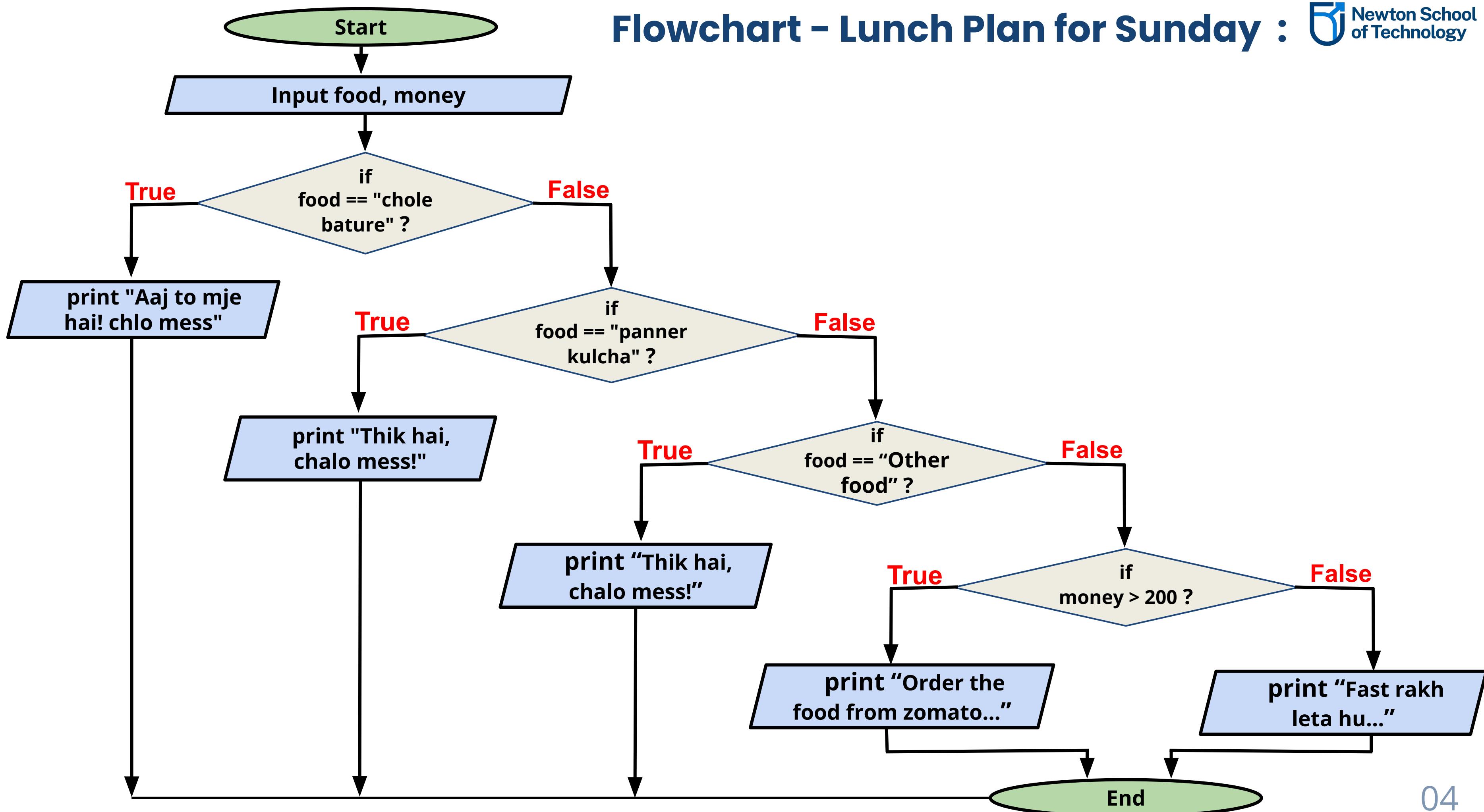
# Using if-elif-else with Logical Operators

```
username = "admin"  
password = "1234"  
  
if username == "admin" and password == "password123":  
    print("Login successful")  
elif username == "admin" or password == "password123":  
    print("Check username or password")  
else:  
    print("Invalid credentials")
```

INPUT	OUTPUT	ERROR
1	Check username or password	
2		

[Code Snippet](#)

# Flowchart - Lunch Plan for Sunday :



# Can i think with if- elif- else ?

**Login Page**

Username

Password

Remember me      [Forgot Password](#)

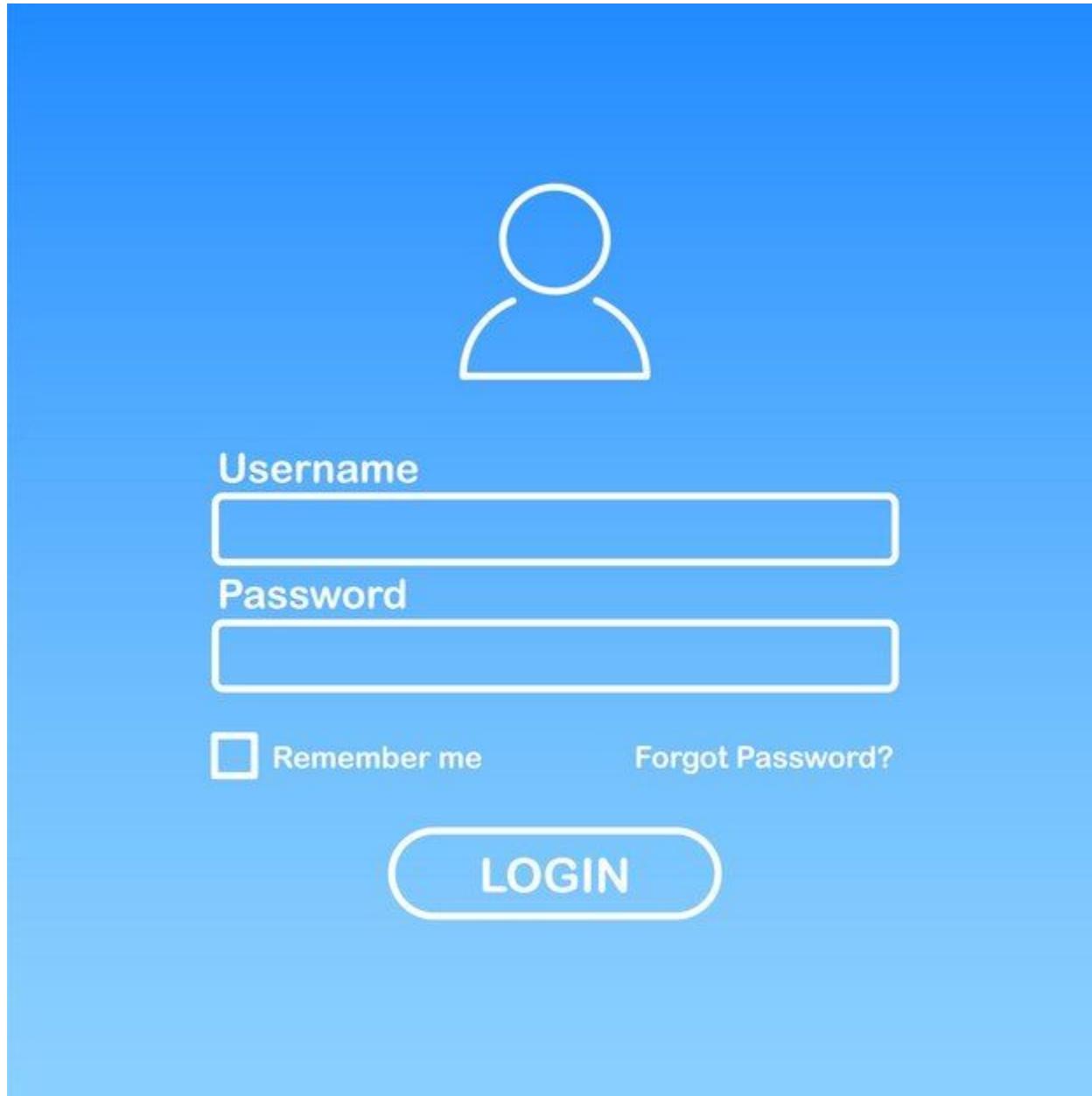
**Login**

alamy

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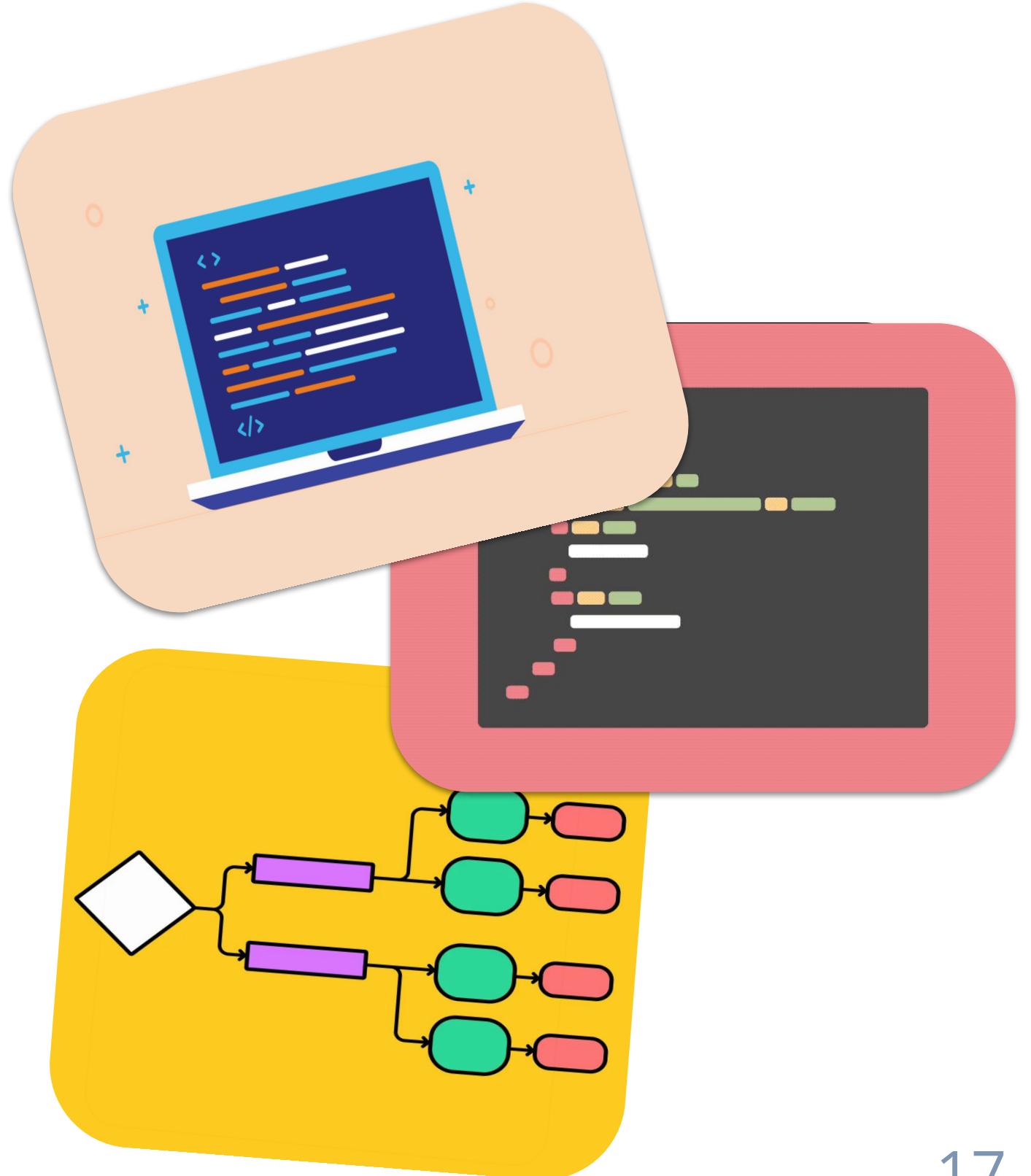


# Can i think with if- elif- else ?



# Summary

- **Conditional Statements**
  - if-elif-else ladder
  - Advantages
  - Use cases
- **Logical Operators**
  - and, or, not
  - Combining them
  - Truth tables



# Using ladder

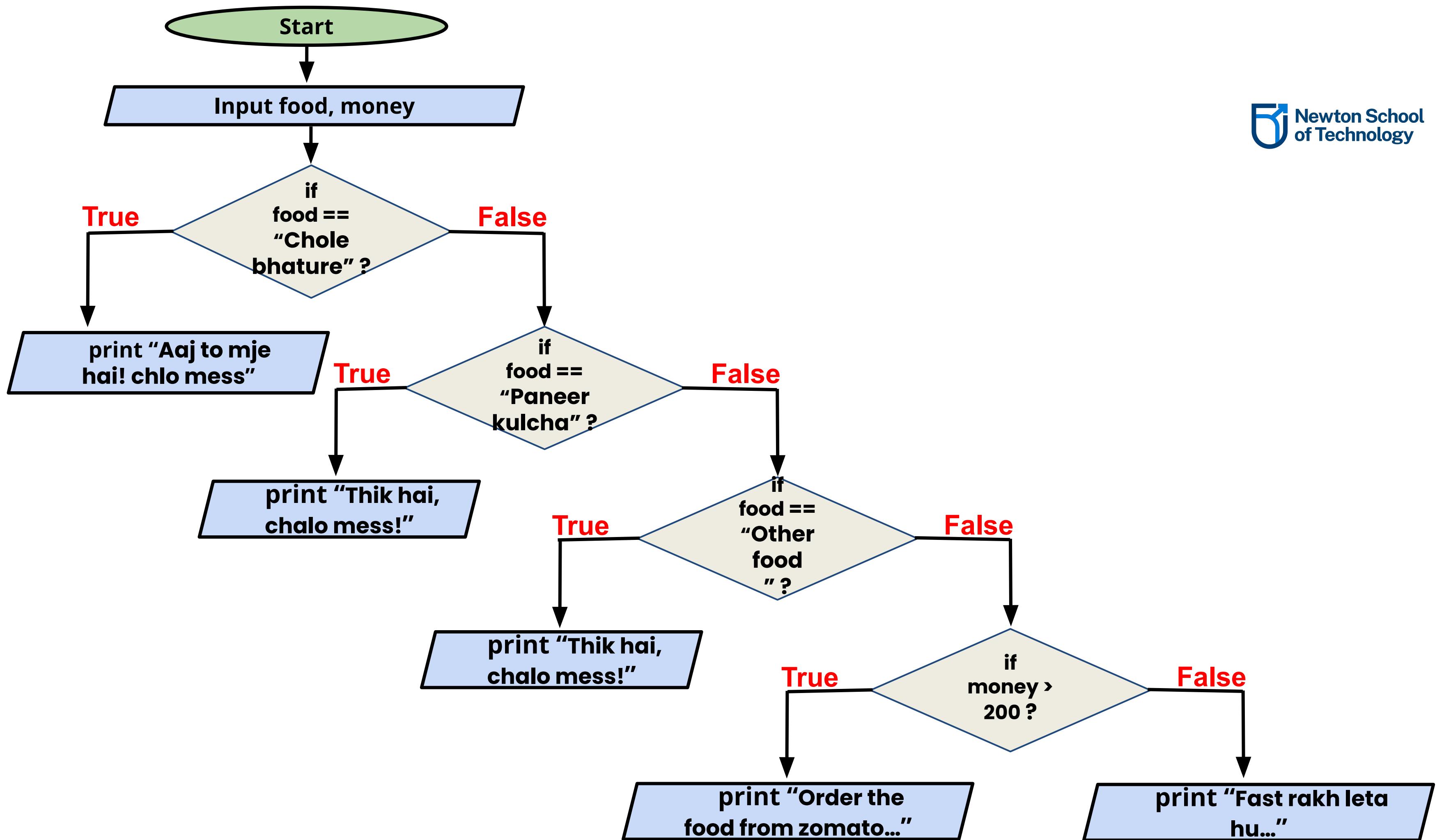
- **The Number Detective**



# Quick Recap :

- **The Number Detective**





# Lunch Plan for Sunday :

