

Task 2: Implement conditional, control and looping statements 30/7/25

(a) Temperature Alert system (if-elif)

Aim) - To write a python program that classifies temperature as "Too cold", "Comfortable", or "Too hot" using Conditional (if-elif-else) statements.

Algorithm:-

1. Start the program
2. Accept temp input from the user.
3. If temperature < 18 , Print "Too cold"
4. Else if temperature is between 18 and 25 (including),
Print "Comfortable"
5. Else, Print "Too Hot"
6. End.

Program:-

```
# temperature Alert system : browser
temperature = float(input("Enter the room temperature : "))
if temperature < 18:
    print("TOO cold")
elif 18 <= temperature <= 25:
    print("comfortable")
else:
    print("TOO Hot")
```

Result - The program correctly identified the room temperature range and prints an appropriate alert.

Output:-

Enter the room temperature : 20
comfortable.

ANSWER - Q8	
Q	COMFORTABILITY
A	(a) HUMIDITY
1	(i) 30%
2	(ii) 60%

6. Password Retry system (while loop)

Aim:-

To implement a password retry system using a while loop that allows a maximum of 3 attempts.

Algorithm:-

1. Start
2. set correct password as "admin123".
3. Set attempt counter to 0.
4. While attempts < 3:
 - Ask the user for password input
 - If correct, print "Access Granted" and exit loop
 - Else, increment attempts and print "Try again"
5. If attempts == 3, print "Access Denied"
6. End.

Program:-

```
# Password retry system
correct - password = "admin123"
attempts = 0.

while attempts < 3:
    entered - password = input ("Enter password: ")
    if entered - password == correct - password:
        print ("Access Granted")
        break.
    else:
        print ("Incorrect password. Try Again.")
        attempts += 1.
if attempts == 3:
    print ("Access Denied").
```

Result: The program allows up to 3 attempts and grants or denies access correctly.

Output

Enter password : test
Incorrect password. Try again.
Enter password : Err Admin
Incorrect password. Try Again.
Enter password : admin123
Access Granted.

Output:-

Enter a number = 5

factorial of 5 is 120.

C. factorial finder (for loop)

Aim: To write a python program that calculates the factorial of a number using a for loop.

Algorithm:-

1. Start
2. Input a number from the user.
3. Initialize result as 1.
4. Loop from 1 to number (inclusive) - multiply result by each value.
5. print the result
6. End.

Program:-

```
# factorial finder
number = int(input("Enter a number: "))
factorial = 1
for i in range(1, number + 1):
    factorial *= i
print("Factorial of", number, "is", factorial)
```

VEL TECH - CSE	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	13/10/2023

Result: The program correctly calculates the factorial of the entered number using a for loop.