

Date: 30/7/25

Task 2: Implement conditional, control and looping statement.

a) Temperature Alert system

Aim:- To write a python Program that takes room temperature as input and prints.

• "too cold" if temperature < 18

• "comfortable" if $18 \leq \text{temperature} \leq 25$

• "too hot" if temperature > 25

Algorithm:-

1) Start the Program

2) Accept room temperature from the user

3) Use if-else condition to check the temperature range.

• if temperature < 18 , display "too cold"

• else if temperature is between 18 and 25

• (inclusive), display "comfortable"

• else - display "too hot".

End of Program.

output (of 5000)
 (of 5000)
 output

enter your temperature in
 comfortable.

to over 100 (of 100)
 (of 100)
 to over 100 (of 100)

VEL TECH - CSE	
EX NO.	
PERFORMANCE (S)	
RESULT AND ANALYSIS (S)	
VIVA VOCE (S)	
RECORD (S)	
DATE	
TIME WITH DATE	

Signature of the student
 Signature of the teacher
 Date
 Page No.

Program:

```
temp = float (input("Enter room temperature"))
```

```
if temp < 15;
```

```
    print("too cold")
```

```
elif 15 <= temp <= 25;
```

```
    print("comfortable")
```

```
else;
```

```
    print("too hot")
```

Result: The program successfully checked the temperature and printed the appropriate alert based on the given condition.

Date: 20/7/25

6) Password Policy system (while loop)

Aim:- to develop a python program that allows the user up to 6 attempts to enter the correct password using a while loop. The correct password is "admin123".

Algorithm:-

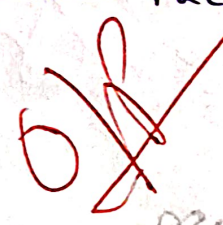
1. start the program
2. Initialize the attempt count to 0
3. Repeat the following steps while attempts are less than 3.
 - Ask the user to enter a password
 - If the password is correct, display a message.
 - Otherwise, increase the attempt count.
- 4) If 3 incorrect attempts are made, display an access denied message
- 5) End the program.

Program:-

```
correct_password = "admin123"
attempts = 3
while attempts > 0:
```


25/10/05

enter password: pass incorrect password
enter password: admin incorrect password
enter password: admin 123 access granted



the following steps
1. start the program
2. enter the password
3. click on the login button
4. the program will display the login screen
5. the program will display the login screen
6. the program will display the login screen
7. the program will display the login screen
8. the program will display the login screen
9. the program will display the login screen
10. the program will display the login screen

```
user -> input = input("Enter Password:")  
if user -> input == correct -> password;  
    print("Access granted")  
    break  
else:  
    print("Incorrect Password")  
    attempts += 1  
if attempts == 3;  
    print("Access denied. too many attempts")
```

Result :-

The program correctly validate the password with a maximum of 3 attempts using a while loop.

output: 120

Enter a number:

factored :- 120

~~120 = 2 * 2 * 2 * 3 * 5~~

120 = 2 * 2 * 2 * 3 * 5

120 = 2 * 2 * 2 * 3 * 5

120 = 2 * 2 * 2 * 3 * 5

c) Factorial Finder (for loop)

Aim: To write a python program that accepts a number and calculates its factorial using a for loop.

Algorithm:

- 1) Start the program
- 2) Accept a number from the user
- 3) Initialize a variable fact to 1
- 4) Use a for loop from 1 to the given number (inclusive) multiply fact by each number.
- 5) Display the result.
- 6) End the program.

Program:

```
num = int(input("enter a number:"))  
fact = 1
```

```
for i in range(1, num+1):
```

```
    fact *= i  
print("Factorial is: ", fact)
```

LEVEL TECH - CSE	
EX/NO.	17
PERFORMANCE (5)	5
SUIT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20
SIGNATURE	

Result: The program
the factorial the
for loop.

accurately calculated
input number using