Date :- 30/07/25

Task 2: Implement conditional, control and looping statements.

Aim:

To implement conditional, control and looping statements using Python

Algorithm:

1. Start
2. Get the input mark from the user
3. With the use of an if-elif-else statement do
   - if the marks >=90 print grade "A"
   - if the marks is between 80 and 89 print grade "B"
   - if the marks is between 70 and 79 print grade "C"
   - if the marks is between 60 and 69 print grade "D"
   - if the marks is below 60, print grade "F"
4. Stop.

Program:

```
score=int(input("enter the score:"))
if score>=90:
  print("The grade is A")
elif(score<=89 and score>=80):
  print("The Grade is B")
elif(score<=79 and score>=90):
print("The grade is C")
  elif(score<=69 and score>=60):
  print("The Grade is D")
  else:
    print("The grade is f")
```

Result:

Thus the implement condition of looping statements Executed successfully.

output

Enter the score: 80

The Grade is D.

2.2: password Retry system.

Aim: password Retry system a while loop, allowing up to 3 attempts to enter the correct password.

Algorithm:

1. set correct_password to "admin123"
2. set attempts to 0 and max_attempts to 3
3. while attempts < max_attempts:
   prompt user to "Enter password"
   Increment attempts by 1
   if entered_password == correct_password:
   Print "login successful!"
   Exit loop
   End if
4. if entered_password != correct_password After loop:
5. End.

program:

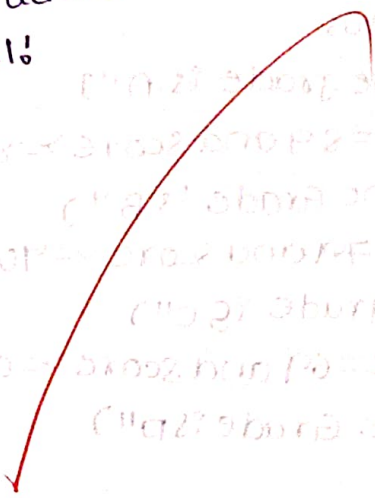
```
def password_retry_system():
  correct_password = "admin123"
attempts = 0
  max_attempts = 3
while attempts < max_attempts:
  entered = input("Enter password:")
  attempts += 1
  if entered == correct_password:
    print("login successful!")
return
else:
    remaining = max_attempts - attempts.
print(f"Incorrect password. {remaining}")
print("Too many failed attempts. Access denied.")
```

Result:

Thus the password Retry system program executed successfully.

Outputs

Enter password : wrongpass
Incorrect password. 2 attempts left
Enter password : admin123
login successful!



Task 2.3 - factorial finder.

Aim:-

To find the factorial finder using a for loop.

Algorithm:

1. Input number n
2. Initialize a variable result (or factorial) to 1
3. loop from 1 to n inclusive
   - multiply result by the loop counter each iteration
4. After the loop, result holds the value of n!
5. output the result - or handle edge cases like n<0 or n=0.

program:

```
def factorial_finder():
 try:
   n=int(input("enter a non-negative integer:"))
 except valueerror:
    print("Invalid input. please enter an integer number");
  return
  if n<0:
    print("factorial is not defined for negative number.")
  else:
  fact=1
  for i in range(1,n+1):
  fact *=i;
  print(f"The factorial of {n} is {fact}")
```

VEL TECH - CSE	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	15/8/25

Result:

Thus the factorial finder of the program executed successfully.

13/8/25

Output

Enter a non-negative integer: 5

The factorial of 5 is 120.