1. E-Commerce Discount Calculator

Scenario : An online store offers discounts based on the purchase amount :

10% discount for purchases btw $100 and $500

20% discount for purchases above $500

No discount for purchases below $100

Task : Write a program that takes the purchase amount as input and calculates the discount and final amount to be paid.

```
# E-Commerce Discount Calculator
amount = float (input ("Enter purchase amount : $"))
if amount < 100:
    discount = 0
elif 100 < =amount < =500 :
    discount = amount * 0.10
else :
    discount = amount * 0.20

    final_amount = amount - discount
    Print (f" Discount : ${discount :. 2f} ")
    Print (f "final amount to be paid : $ {final_amount :2f}
```

2. Traffic Light Simulation

Scenario : Create a program that Simulates a traffic light. The user inputs one of the colors : Red, Yellow or Green. Based on the input :

If the input is Red, display "stop".

If the input is Yellow, display "Ready to move".

If the input is Green, display "Go."

For invalid input, display, "Invalid Color."

Traffic Light Simulation

```
Color = input (" Enter traffic light color (Red, Yellow, Green):"
lower()
if color == "red":
    Print ("stop.")
elif color == "yellow":
    Print ("Ready to move.")
elif color == "green":
    Print ("Go.")
else:
    Print (" Invalid Color.")
```

3. Grade Evaluation System

Scenario : A School uses the following grading System :

Marks $>= 90$: Grade A

Marks > 75 and < 90 : Grade B

Marks $> = 50$ and < 75 : Grade C

Marks < 50 : Fail

Task : Write a program that accepts the student's marks and displays their grade

```python
# Grade Evaluation System

marks = float (input ("Enter your marks:"))

if marks >= 90:
    grade = "A"
elif marks >= 75:
    grade = "B"
elif marks >= 50:
    grade = "c"
else
    grade = "fail"

Print (f" your grade is :{grade}")
```

4. Odd or Even and Divisibility Check

Scenario : Write a program that takes an integer as input and checks:

whether the number is odd or even

whether the number is divisible by 5

Display appropriate messages for both conditions

```
# odd or Even and Divisibility Check

num = int (input (" Enter a number :"))

if num % 2 ==0:
    Print (" The number is Even.")
else :
    Print ("The number is Odd.")
if num % 5 ==0:
    Print ("The number is divisible by 5.")
else :
    Print (" The number is not divisible by 5.")
```

5. Password Strength Checker

Scenario : Write a program that checks the Strength of a password based on these rules

Length >= 8 characters : Strong

length btw 5 and 7 Characters : Medium

Length < 5 characters : weak

```python
# Password Strength checker
Password = input ("Enter your password :")
length = len (password)
if length >= 8:
    Print (" Password Strength : Strong")
elif 5 <= length < 8:
    Print (" Password Strength : Medium")
else :
    Print ("Password Strength : weak")
```

6. Electricity Bill Calculator

Scenario : An electricity company charges its customers as follows:

First 100 units : $0.5 per unit

Next 100 units (101-200) : $0.75 Per unit

Above 200 units : $1 per unit.

Task : Write a program that accepts the number of units Consumed and Calculates the total bill.

```
# Electricity Bill Calculator
units = int (input ("Enter the number of units consumed:"))
    if units <= 100
        bill = units * 0.5

    elif units <= 200:
        bill = (100 * 0.5) + (units - 100) * 0.75

    else
        bill = (100 * 0.5) + (100 * 0.75) + (units - 200) * 1

    Print (f "Total Electricity Bill: $(bill :2f }")
```

7. Eligity for Loan Approval

Scenario : A bank approves loans based on these

Conditions :

Age Should btw 21 and 60

Monthly income should be greater than or equal to
$ 5000.

Task : Write a program to check

```
# Eligibility for Loan Approval
age = int (input (" Enter you age:"))
    income = float (input (" Enter your montly income :$"))

if 21 <= age <= 60 and income >= 5000:
    Print ("You are eligible for the loan.")
Print (" You are not eligible for the loan.")
```

8. # Temperature Alert System
temp = float (input ("Enter temperature in C:"))

if temp < 0:
    Print ("Freezing ~~water~~ weather")

elif 0 <= temp <= 20:
    Print ("Cold weather")

elif 21 <= temp <= 30:
    Print ("warm weather")

else :
    Print ('Hot weather')