Ques1: Positive or Negative

Write a program to check whether a given number is positive, negative, or zero.

```python
In [1]: a=int(input("Enter the number "))
        print(f"The entered number is: {a}")
        if (a>0):
            print(f"{a} is a positive number")
        elif (a<0):
            print(f"{a} is a negative number")
        elif (a==0):
            print(f"{a} is zero")
```

```
The entered number is: 6
6 is a positive number
```

Ques 2: Even or Odd

Write a program to check whether a given integer is even or odd.

```python
In [2]: num = int(input("Enter an integer: "))
        if (num % 2 == 0):
            print(num, "is Even")
        else:
            print(num, "is Odd")
```

```
6 is Even
```

Ques 3: Largest of Two Numbers

Write a program to input two numbers and print which one is larger.

```python
In [3]: num1=int(input("Enter first number"))
        num2=int(input("Enter second number"))
        if (num1>num2):
            print(f"{num1} is greater than {num2}")
        elif (num2>num1):
            print(f"{num2} is greater than {num1}")
        else:
            print(f"Both the numbers are equal")
```

```
23 is greater than 21
```

Ques 4:Absolute Value

Write a program to find the absolute value of a given number without using the abs() function.

```python
In [4]: num = float(input("Enter a number: "))
        if num < 0:
            absolute_value = -num
        else:
```

```
        absolute_value = num
print("Absolute value of", num, "is:", absolute_value)
```
Absolute value of -45.0 is: 45.0

Ques 5:Eligibility for Voting

Write a program to check whether a person is eligible to vote or not. (A person is eligible if their age is 18 or above).

In [6]:
```
age=int(input("Enter the age: "))
if (age>=18):
    print("Eligible to vote")
else:
    age1=18-age
    print(f"You have {age1} years to be eligible to vote")
```
You have 2 years to be eligible to vote

Ques 6:Leap Year Check

Write a program to check whether a given year is a leap year or not. (Hint: A leap year is divisible by 4, but not by 100 unless also divisible by 400).

In [ ]:
```
year = int(input("Enter a year: "))
if (year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):
    print(year, "is a Leap Year")
else:
    print(year, "is Not a Leap Year")
```
2024 is a Leap Year

Ques 7: Grade Calculation

Write a program that takes marks as input and prints:

- 'Pass' if marks are 40 or above
- 'Fail' if marks are less than 40

In [12]:
```
marks = float(input("Enter your marks: "))
print(f"The entered marks are {marks}")
if marks >= 40:
    print("Pass")
else:
    print("Fail")
```
The entered marks are 82.6
Pass

Ques 8: Multiple of 5

Write a program to check whether a given number is a multiple of 5.

```python
In [13]: num = int(input("Enter a number: "))
         if num % 5 == 0:
             print(num, "is a multiple of 5")
         else:
             print(num, "is not a multiple of 5")
```

```
60 is a multiple of 5
```

Ques 9: Character Case Check

Write a program to input a character and check whether it is an uppercase letter, lowercase letter, or not a letter.

```python
In [14]: ch = input("Enter a character: ")
         if len(ch) == 1:
             if 'A' <= ch <= 'Z':
                 print(ch, "is an Uppercase letter")
             elif 'a' <= ch <= 'z':
                 print(ch, "is a Lowercase letter")
             else:
                 print(ch, "is not a letter")
         else:
             print("Please enter only one character.")
```

```
A is an Uppercase letter
```

Ques 10: Discount Calculator

Write a program that calculates the discount:

- If purchase amount is greater than or equal to 1000, apply a 10% discount.
- Otherwise, no discount. Finally, print the final bill amount.

```python
In [15]: amount = float(input("Enter the purchase amount: "))
         if amount >= 1000:
             discount = amount * 0.10
             final_amount = amount - discount
         else:
             discount = 0
             final_amount = amount
         print("Purchase Amount:", amount)
         print("Discount Applied:", discount)
         print("Final Bill Amount:", final_amount)
```

```
Purchase Amount: 1200.0
Discount Applied: 120.0
Final Bill Amount: 1080.0
```

In [ ]: