

1. Write a program to check whether a person is eligible for voting or not? (Accept age from user)

```
In [3]: user_age = int(input("Please enter the age: "))
if user_age >= 18:
    print("Eligible to vote")
else:
    print("Age criteria not met for voting")
```

Please enter the age: 18
Eligible to vote

2. Write a program to display "Hello" if a number entered by a user is a multiple of 5, otherwise print "Bye"

```
In [5]: number = int(input("Enter a number:"))
if number % 5 == 0:
    print("Hello")
else:
    print("Bye")
```

Enter a number: 45
Hello

3. Write a program to calculate the electricity bill (accept number of units from user) according to the following criteria:
Unit Price First 100 units no charge Next 100 units 5 per unit After 200 units 10 per unit (For example, if input unit is 350 then total bill amount is \$ 2000)

```
In [13]: def calculating_bill(units):
    if units <= 100:
        bill_amount = 0
    elif units <= 200:
        bill_amount = (units - 100) * 5
    else:
        bill_amount = 100 * 5 + (units - 200) * 10
    return bill_amount

usage_units = int(input("Enter the number of units consumed: "))
bill_amount = calculating_bill(usage_units)
print("Total bill amount: $", bill_amount)
```

Enter the number of units consumed: 50
Total bill amount: \$ 0

4. Write a program to accept a number from 1 to 7 and display the name of the day like 1 for Sunday, 2 for Monday and so on.

```
In [24]: week_dictionary = {1: "Sunday", 2: "Monday", 3: "Tuesday", 4: "Wednesday", 5: "Thursday", 6: "Friday", 7: "Saturday"}

def number_week(number):
    if number in week_dictionary.keys():
        day_of_week = week_dictionary[number]
        print(f"The day for the week as per the provided by number {number} is {day_of_week}")
    else:
        print(f"The provided number is not within the weekdays(1-7) \n",
              "please try number between 1 and 7")

weekday_number = int(input("Enter the number to find the week day: "))
week_day = number_week(weekday_number)
```

Enter the number to find the week day: 9
The provided number is not within the weekdays(1-7)
please try number between 1 and 7

5. Write a program to check a character is vowel or not

```
In [27]: vowels = ['a','e','i','o','u']

def vowel_check(char):
    if char in vowels:
        print(f"The provided character {char} is vowel")
    else:
        print(f"{char} it's not a vowel !!!")

user_input = input("Enter a character: ")
checking_char = vowel_check(user_input)
```

Enter a character: e
The provided character e is vowel

6. Accept three sides of a triangle and check whether it is an equilateral, isosceles or scalene triangle.

Note: An equilateral triangle is a triangle in which all three sides are equal. A scalene triangle is a triangle that has three unequal sides, An isosceles triangle with two equal sides

```
In [33]: def check_triangle(a,b,c):
    if a==b==c:
        print(f"All sides are equal, it is an equilateral triangle")
    elif a==b or b==c or a==c:
        print(f"Two sides are equal, it is an isosceles triangle")
    elif a!=b!=c:
        print(f"Three unequal sides, it is a scalene triangle")

side_1 = int(input("First side: "))
side_2 = int(input("Second side: "))
side_3 = int(input("Third side: "))
checking_triangle_type = check_triangle(side_1,side_2,side_3)
```

First side: 5
Second side: 4
Third side: 3
Three unequal sides, it is a scalene triangle

In []: