Python Programming - 2301CS404

Lab - 3

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01) WAP to check whether the given number is positive or negative.

In [4]:
```
number = int(input('Enter the number:'))

if(number > 0):
    print(f"{number} is Positive number.")
elif(number < 0):
    print(f"{number} is Negative number.")
else:
    print(f"Number is {number}.")
```

```
5 is Positive number.
```

02) WAP to check whether the given number is odd or even.

In [5]:
```
number = int(input('Enter the number:'))
if(number % 2 == 0):
    print(f"{number} is Even number.")
else:
    print(f"{number} is Odd number.")
```

```
4 is Even number.
```

03) WAP to find out largest number from given two numbers using simple if and ternary operator.

In [11]:
```
num1 = int(input('Enter the number 1:'))
num2 = int(input('Enter the number 2:'))

# simple if condition
if(num1 > num2):
    print(f"{num1} is Largest number.")
elif(num2 > num1):
    print(f"{num2} is Largest number.")
else:
```

```
    print(f"Equal number.")


# Ternary operator
print(f'{num1} is Largest number') if num1 > num2 else (print(f'{num2} is Largest N
```

```
Equal number.
Equal Number
```

04) WAP to find out largest number from given three numbers.

In [12]:
```
num1 = int(input('Enter the number 1:'))
num2 = int(input('Enter the number 2:'))
num3 = int(input('Enter the number 3:'))

if(num1 > num2 and num1 > num3):
    print(f"{num1} is Largest number.")
elif(num2 > num1 and num2 > num3):
    print(f"{num2} is Largest number.")
else:
    print(f"{num3} is Largest number.")
```

```
5 is Largest number.
```

05) WAP to check whether the given year is leap year or not.

[If a year can be divisible by 4 but not divisible by 100 then it is leap year but if it is divisible by 400 then it is leap year]

In [13]:
```
year = int(input('Enter the Year:'))

if((year % 4 == 0 or year % 100 != 0) and (year % 400 == 0)):
    print(f"{year} is a Leap year.")
else:
    print(f"{year} is not a Leap year.")
```

```
2025 is not a Leap year.
```

06) WAP in python to display the name of the day according to the number given by the user.

In [17]:
```
day = int(input('Enter number of day:'))

match day:
    case 1:
        print('Monday')
    case 2:
        print('Tuesday')
    case 3:
        print('Wednesday')
    case 4:
        print('Thrusday')
    case 5:
```

```
        print('Friday')
    case 6:
        print('Saturday')
    case _:
        print('Invalid day')
```

```
Wednesday
```

07) WAP to implement simple calculator which performs (add,sub,mul,div) of two no. based on user input.

In [18]:
```
num1 = int(input('Enter the number 1:'))
num2 = int(input('Enter the number 2:'))
choice = int(input('Enter Choice:\n(add:1)\n(sub:2)\n(mul:3)\n(div:4)'))

match choice:
    case 1:
        print(f'Addition: {num1 + num2}')
    case 2:
        print(f'Subtraction: {num1 - num2}')
    case 3:
        print(f'Multiplication: {num1 * num2}')
    case 4:
        print(f'Addition: {num1 / num2}')
    case _:
        print('Invalid Choice')
```

```
Subtraction: 2
```

08) WAP to read marks of five subjects. Calculate percentage and print class accordingly.

Fail below 35

Pass Class between 35 to 45

Second Class

between 45 to 60

First Class between 60 to 70

Distinction if more than 70

In [20]:
```
subject_1 = int(input('Enter marks of Subject 1:'))
subject_2 = int(input('Enter marks of Subject 2:'))
subject_3 = int(input('Enter marks of Subject 3:'))
subject_4 = int(input('Enter marks of Subject 4:'))
subject_5 = int(input('Enter marks of Subject 5:'))

percentage = ((subject_1 + subject_2 + subject_3 + subject_4 + subject_5) / 500) *
if(percentage > 70):
    print('Distinction')
elif(percentage > 60):
```

```
    print('First Class')
elif(percentage > 45):
    print('Second Class')
elif(percentage > 35):
    print('Pass class')
else:
    print('Fail')
```

```
Second Class
```

09) WAP to find the second largest number among three user input numbers.

In [21]:
```
num1 = int(input('Enter the number 1:'))
num2 = int(input('Enter the number 2:'))
num3 = int(input('Enter the number 3:'))

if(num1 > num2 and num1 > num3):
    if(num2 > num3):
        print(f'{num2} is second largest number.')
    else:
        print(f'{num3} is second largest number.')
elif(num2 > num1 and num2 > num3):
    if(num1 > num3):
        print(f'{num1} is second largest number.')
    else:
        print(f'{num3} is second largest number.')
else:
    if(num1 > num2):
        print(f'{num1} is second largest number.')
    else:
        print(f'{num2} is second largest number.')
```

```
3 is second largest number.
```

10) WAP to calculate electricity bill based on following criteria. Which takes the unit from the user.

a. First 1 to 50 units – Rs. 2.60/unit

b. Next 50 to 100 units – Rs. 3.25/unit

c. Next 100 to 200 units – Rs. 5.26/unit

d. above 200 units – Rs. 8.45/unit

In [27]:
```
units = int(input('Enter Units:'))

if(units > 200):
    print(f'{(50 * 2.60) + (50 * 3.25) + (100 * 5.26) + (units - 200) * 8.45}')
elif(units > 100):
    print(f'{(50 * 2.60) + (50 * 3.25) + (units - 100) * 5.26}')
elif(units > 50):
    print(f'{(50 * 2.60) + (units - 50) * 3.25}')
```

```
else:
    print(f'{units * 2.60}')
```

```
1072.0
```