Python Programming - 2301CS404

Lab - 3

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

In [2]:
```
num1 = int(input("Enter Numbers :"))
if num1>0:
    print("Number is Positive.")
else :
    print("Number is Negative")
```

```
Number is Negative
```

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

In [5]:
```
num1 = int(input("Enter Numbers :"))
if num1%2 == 0:
    print("Number is Even.")
else :
    print("Number is Odd")
```

```
Number is Even.
```

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

In [7]:
```
num1, num2 = input("Enter two Numbers :").split()
num1 = int(num1)
num2 = int(num2)

if num1>num2:
    res = num1;
else:
```

```
    res = num2;
print(f"Largest number with using IF : {res}")

print(f"Largest number with using ternary : {num1}") if num1>num2 else print(f"Larg
```

```
Largest number with using IF : 10
Largest number with using ternary : 10
```

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

In [10]:
```
num1, num2, num3= input("Enter two Numbers :").split()
num1 = int(num1)
num2 = int(num2)
num3 = int(num3)

if num1>num2 and num1>num3:
    res = num1;
elif num2>num3:
    res = num2;
else:
    res = num3;
print(f"Largest number with using IF : {res}")

print(f"Largest number with using ternary : {num1}") if num1>num2 and num1>num3 els
```

```
Largest number with using IF : 8
Largest number with using ternary : 8
```

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 [15]:
```
year = int(input("Enter Year :"))

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

```
2003 is not leap year
```

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

In [20]:
```
day = int(input("Enter day:"))
day = day%7
match day:
    case 1:
        print("IT's Monday :-(")
    case 2:
        print("Tuesday ~_~")
    case 3:
```

```
        print("Wensday ")
    case 4:
        print("Thusday ")
    case 5:
        print("Friday")
    case 6:
        print("Saturday ")
    case 7:
        print("Sunday :-)")
    case _:
        print("False")
```

```
IT's Monday :-(
```

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

In [ ]:
```
num1,num2 = input("Enter a Two:").split()
num1 = int(num1)
num2 = int(num2)

day = int(input("Enter 1 for '+', 2 for '-', 3 for '*', 4 for '/':"))
match day:
    case 1:
        print("Ans = ",(num1+num2))
    case 2:
        print("Ans = ",(num1-num2))
    case 3:
        print("Ans = ",(num1*num2))
    case 4:
        print("Ans = ",(num1/num2))
    case _:
        print("False")
```

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 [29]:
```
sub1, sub2, sub3, sub4, sub5, *s = map(int,input("Enetr your marks(5 subjects) :").
print(type(sub1))
total = sub1+sub2+sub3+sub4+sub5
```

```
percentage = total / 5
if percentage <= 35:
    print("I am Sorry you are Fail")
elif percentage > 35 and percentage <= 45:
    print("Pass Class between 35 to 45 ")
elif percentage > 45 and percentage <= 60:
    print("Pass Second Class between 45 to 60")
elif percentage > 60 and percentage <= 70:
    print("Pass First Class between 60 to 70")
else:
    print("Invalid")
```

```
<class 'int'>
Pass Second Class between 45 to 60
```

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

In [33]:
```
num1, num2, num3= input("Enter two Numbers :").split()
num1 = int(num1)
num2 = int(num2)
num3 = int(num3)

if (num1>num2 and num1<num3) or (num1<num2 and num1>num3):
    res = num1;
elif num2<num3:
    res = num2;
else:
    res = num3;
print(f" Secound Largest number with using IF : {res}")
```

```
Secound Largest number with using IF : 5
```

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 [38]:
```
bill = int(input("Enter Units :"))
total = float(0)

if bill <= 50:
    total = bill*2.60
elif bill <= 100:
    total = 50*2.60 + (bill-50)*3.25
elif bill <= 200:
    total = 50*2.60 + (50)*3.25 + (bill-100)*5.26
else :
```

```
    total = 50*2.60 + (50)*3.25 + (100)*5.26 + (bill-200)*8.45
print(f"Total Bill : {total}")
```

```
Total Bill : 1105.8
```

In [ ]: