Python Programming - 2301CS404

Lab - 3

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

In [2]:
```
a = int(input("Enter a num : "))
if a > 0:
    print("Positive Number")
else:
    print("Negative Number")
```

```
Negative Number
```

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

In [3]:
```
a = int(input("Enter a num : "))
if a % 2 == 0:
    print("Even Number")
else:
    print("odd Number")
```

```
odd Number
```

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

In [4]:
```
a = int(input("Enter a num : "))
b = int(input("Enter a num : "))

if a > b:
    print("a is large")
else:
    print("b is large")
```

```
b is large
```

In [5]:
```
a if a > b else b
```

Out[5]:
```
7
```

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

In [7]:
```
a = int(input("Enter a num : "))
b = int(input("Enter a num : "))
c = int(input("Enter a num : "))

if a > b and a > c:
    print ("a is largest")
elif b > a and b > c:
    print("b is largest")
else:
    print("c is largest")
```

```
c is largest
```

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 [8]:
```
year = int(input("Enter a year : "))

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

```
leap year
```

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

In [12]:
```
a = int(input("Enter a num : "))

match(a):
    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 7:
        print("Sunday")
    case _:
        print("invalid number")
```

```
Monday
```

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

In [13]:
```
a = int(input("Enter num 1 : "))
b = int(input("Enter num 1 : "))
op = int(input("Enter 1 for addition , 2 for subtraction , 3 for multiply, 4 for division"))

match(op):
    case 1:
        print(f"addition : {a+b}")
    case 2:
        print(f"subtraction : {a-b}")
    case 3:
        print(f"multiply : {a*b}")
    case 4:
        print(f"division : {a/b}")
    case _:
```

```
        print("invalid number")
```

```
division : 2.0
```

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 [14]:
```
a = int(input("Enter mark of sub 1 : "))
b = int(input("Enter mark of sub 2 : "))
c = int(input("Enter mark of sub 3 : "))
d = int(input("Enter mark of sub 4 : "))
e = int(input("Enter mark of sub 5 : "))

per = (a+b+c+d+e)/5

if per > 70:
    print("Distinction")
elif per > 60:
    print("First Class")
elif per > 45:
    print("Second Class")
elif per > 35:
    print("Pass Class")
else:
    print("Fail")
```

```
Second Class
```

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

In [16]:
```
a = int(input("Enter a num : "))
b = int(input("Enter a num : "))
c = int(input("Enter a num : "))

if (a >= b and a <= c) or (a <= b and a >= c):
    second_largest = a
elif (b >= a and b <= c) or (b <= a and b >= c):
    second_largest = b
else:
    second_largest = c

print(second_largest)
```

```
30
```

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 [19]:
```
unit = int(input("Enter a unit : "))

if unit <= 50:
    bill_amount = unit * 2.60
elif unit <= 100:
    bill_amount = (50 * 2.60) + ((unit - 50) * 3.25)
elif unit <= 200:
    bill_amount = (50 * 2.60) + (50 * 3.25) + ((unit - 100) * 5.26)
else:
     bill_amount = (50 * 2.60) + (50 * 3.25) + (100 * 5.26) + ((unit - 200) * 8.45)

print(f"total bill amount is {bill_amount}")
```

```
total bill amount is 555.5
```