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Python Programming - 2101CS405

Lab - 2

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if..else..

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

In [4]:
```
n = int(input("Number :"))

if n>=0:
    print("number is positive")
else:
    print("number is Negative")
```

```
Number :10
number is positive
```

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

In [5]:
```
if n%2 == 0 :
    print("Given Number Is Even")
else :
    print("Given Number Is Odd")
```

```
Given Number Is Even
```

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

In [10]:
```
n1 = int(input("N1 : "))
n2 = int(input("N2 : "))

if n1>n2:
    print("Largest Number = ",n1,"using if condition.")
else:
    print("Largest Number = ",n2,"using if condition.")

max = print("Largest Number = ",n2,"using ternary operation.") if n2>n1 else p
```

```
N1 : 40
N2 : 39
Largest Number =  40 using if condition.
Largest Number =  40 using ternary operation.
```

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

In [11]:
```
a = int(input("a:"))
b = int(input("b:"))
c = int(input("c:"))

if (a>b and a>c):
    print("Largest = ",a)
else:
    if b>c:
        print("Largest = ",b)
    else:
        print("largest = ",c)
```

```
a:12
b:15
c:8
Largest =  15
```

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 [20]:
```
n = int(input("Year : "))

if((n%4 == 0 and n%100 != 0) or (n%400 == 0)):
    print("Given Year Is Leap Year")
else:
    print("Given Year Is Not Leap Year")
```

```
Year : 1900
Given Year Is Not Leap Year
```

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

In [5]:
```
c = int(input("Choice : "))

if c == 1:
    print("Sunday")
elif c == 2:
    print("Monday")
elif c == 3:
    print("Tuesday")
elif c == 4:
    print("Wednesday")
elif c == 5:
    print("Thursday")
elif c == 6:
    print("Friday")
elif c == 7:
    print("Saturday")
```

```
Choice : 3
Tuesday
```

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

In [3]:
```
n3 = int(input("n3 : "))
n4 = int(input("n4 : "))

print("choices : \n")
print("1.add\n")
print("2.subtract\n")
print("3.multyplication\n")
print("4.divide")

ch = int(input("choice = "))

if ch == 1:
    print(n3+n4)

elif ch == 2:
    print(n3-n4)

elif ch == 3:
    print(n3*n4)

elif ch == 4:
    print(n3/n4)
```

```
n3 : 10
n4 : 5
choices :

1.add

2.subtract

3.multyplication

4.divide
choice = 1
15
```

08) 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 [7]:
```
U = float(input("Unit : "))
Bill = 0.0

if U<=50:
    Bill = Bill+ U*2.60
elif U>50 and U<=100:
    Bill = Bill + (50*2.60) + ((U-50)*3.25)
elif U>100 and U<=200:
    Bill =Bill + (50*2.6) + (50*3.25) + ((U-100)*5.26)
elif U>200:
    Bill = Bill + (50*2.6) + (50*3.25) + (100*5.26) + ((U-200)*8.45)

print("Total Bill = ",Bill)
```

```
Unit : 234
Total Bill =  1105.8
```

01) 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 [9]:
```
m1 = int(input("m1 : "))
m2 = int(input("m2 : "))
m3 = int(input("m3 : "))
m4 = int(input("m4 : "))
m5 = int(input("m5 : "))

per = (m1+m2+m3+m4+m5)*100/5

if per<35:
    print("Student is Fail")
elif per>=35 and per<45:
    print("Student Result class is Pass")
elif per>=45 and per<60:
    print("Student Result class is Second")
elif per>=60 and per<70:
    print("Studebt Result Class is First")
elif per>=70:
    print("Student Result Class is Distinction")
```

```
m1 : 54
m2 : 78
m3 : 89
m4 : 52
m5 : 66
Student Result Class is Distinction
```

02) WAP to find out the Maximum and Minimum number from given 4 numbers.

In [13]:
```
n5 = int(input("n5:"))
n6 = int(input("n5:"))
n7 = int(input("n5:"))
n8 = int(input("n5:"))

max = 0
min = 0

if n5>n6 and n5>n7 and n5>n8:
    max = n5
else:
    if n6>n7 and n6>n8:
        max = n6
    else:
        if n7>n8:
            max = n7
        else: max = n8
print("Max Value is ",max)

if n5<n6 and n5<n7 and n5<n8:
    min = n5
else:
    if n6<n7 and n6<n8:
        min = n6
    else:
        if n7<n8:
            min = n7
        else: min = n8

print("Min value is ",min)
```

```
n5:10
n5:20
n5:30
n5:40
Max Value is  40
Min value is  10
```

03) WAP to input an integer number and check the last digit of number is even or odd.

In [16]:
```
x = int(input("x:"))

L = float(x%10);
print("L",L)

if L%2 == 0:
    print("Given Number is Even")
else:
    print("Given Number is Odd")
```

```
x:256
L 6.0
Given Number is Even
```

04) WAP to determine the roots of the equation ax2+bx+c=0.

In [30]:
```
import math
y2 = int(input("Y2:"))
y = int(input("Y:"))
C = int(input("C:"))

D = ((y*y) - (4*y2*C))

if D>0:
    print("R1:",((-y) + math.sqrt(D))/(2*y2))
    print("R2:",((-y) - math.sqrt(D))/(2*y2))
elif D == 0:
    print("R1:",(-y)/(2*y2))
    print("R2:",0)

elif D<0:
    print("R1:",((-y/(2*y2))),"+",(math.sqrt(-1*D)/(2*y2)),"i")
    print("R2:",((-y/(2*y2))),"-",(math.sqrt(-1*D)/(2*y2)),"i")
```

```
Y2:2
Y:3
C:6
R1: -0.75 + 1.5612494995995996 i
R2: -0.75 - 1.5612494995995996 i
```

In [4]:

```
r = int(input("R:"))/255
G = int(input("G:"))/255
B = int(input("B:"))/255

W1 = max(r,G);

W = max(W1, B)
print(W)

C = (W - r)/W
M = (W - G)/W
Y = (W - B)/W
K = (1 - W)

print("C:",C)
print("M:",M)
print("Y:",Y)
print("K:",K)
```

```
R:2
G:3
B:6
0.023529411764705882
C: 0.6666666666666666
M: 0.5
Y: 0.0
K: 0.9764705882352941
```

In [ ]: