



(<https://www.darshan.ac.in/>)

Python Programming - 2101CS405

Lab - 2

if..else..

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

In [1]:

```
num = float(input("Enter a Number:"))
if num>0:
    print(num , "Positive Number")
elif num==0:
    print("zero")
else:
    print(num , "negative number")
```

Enter a Number:-908
-908.0 negative number

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

In [4]:

```
num = int(input("Enter a Number:"))
if(num%2)==0:
    print(num , "is even")
else:
    print(num , "is odd")
```

Enter a Number:18
18 is even

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

In [7]:

```
num1 = int(input("Enter a Number frist:"))
num2 = int(input("Enter a Number second:"))
mx = num1 if num1>num2 else num2
print(mx, "is Largest Number using Ternary Operator")
```

Enter a Number frist:5
Enter a Number second:8
8 is Largest Number using Ternary Operator:

In [6]:

```
num1 = int(input("Enter a Number frist:"))
num2 = int(input("Enter a Number second:"))
if num1>num2:
    print(num1, "is largest number using simple if-else")
else:
    print(num2, "is largest number using simple if-else")
```

Enter a Number frist:78
Enter a Number second:56
78 is largest number using simple if-else

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

In [9]:

```
num1 = int(input("Enter a Number frist:"))
num2 = int(input("Enter a Number second:"))
num3 = int(input("Enter a Number third:"))
if(num1>=num2)and (num1>=num3):
    large=num1
elif(num2>=num1)and (num2>=num3):
    large=num2
else:
    large=num3
print(large , "is largest number")
```

```
Enter a Number frist:78
Enter a Number second:45
Enter a Number third:6
78 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 [11]:

```
x=int(input("Enter the Year:"))
if(x%400==0)and (x%100==0):
    print(x, "is leap year")
elif(x%4==0)and (x%100!=0):
    print(x, "is leap year")
else:
    print(x, "is not leap year")
```

```
Enter the Year:1000
1000 is not leap year
```

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

In [13]:

```
weekday=int(input("Enter weekday Number(1-7):"))
if weekday==1:
    print("\nMONDAY");
elif weekday==2:
    print("\nTUESDAY");
elif weekday==3:
    print("\nWEDNESDAY");
elif weekday==4:
    print("\nTHURSDAY");
elif weekday==5:
    print("\nFRIDAY");
elif weekday==6:
    print("\nSATURDAY");
elif weekday==7:
    print("\nSUNDAY");
else:
    print("\n please enter weekday between 1-7");
```

```
Enter weekday Number(1-7):5
```

```
FRIDAY
```

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

In [3]:

```

num1 = int(input("Enter a Number frist:"))
num2 = int(input("Enter a Number second:"))
print(" 1. ADDITION\n 2. SUBTRACTION\n 3. MULTIPLICATION\n 4. DIVISION")
opt=int(input("choose any one option:"))
if opt==1:
    sum=num1+num2
    print("ADDITION OF TWO NUMBERS:",sum)
elif opt==2:
    sub=num1-num2
    print("SUBTRACTION OF TWO NUMBERS:",sub)
elif opt==3:
    mul=num1*num2
    print("MULTIPLICATION OF TWO NUMBERS:",mul)
elif opt==4:
    div=num1/num2
    print("DIVISION OF TWO NUMBERS:",div)
else:
    print("INVALID!!")

```

```

Enter a Number frist:45
Enter a Number second:23
 1. ADDITION
 2. SUBTRACTION
 3. MULTIPLICATION
 4. DIVISION
choose any one option:1
ADDITION OF TWO NUMBERS: 68

```

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 [6]:

```

unit = int(input("Enter a Unit:"))
if unit<=50:
    print("Electricity Bill = Rs. ",unit*2.60)
elif unit<=100:
    print("Electricity Bill = Rs. ",(100*2.60)+(unit-50)*3.25)
elif unit<=200:
    print("Electricity Bill = Rs. ",(100*2.60)+(100*3.25)+(unit-100)*5.26)
elif unit>200:
    print("Electricity Bill = Rs. ",(100*2.60)+(100*3.25)+(100*5.26)+(unit-200)*8.45)

```

```

Enter a Unit:12
Electricity Bill = Rs. 31.200000000000003

```

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 [37]:

```
sub1 = int(input("Enter a Marks SUB_1:"))
sub2 = int(input("Enter a Marks SUB_2:"))
sub3 = int(input("Enter a Marks SUB_3:"))
sub4 = int(input("Enter a Marks SUB_4:"))
sub5 = int(input("Enter a Marks SUB_5:"))
percentage=(sub1+sub2+sub3+sub4+sub5)/5
print("PERCENTAGE:",percentage)
if percentage>=70:
    print("Distinction")
elif percentage>=60 and percentage<70:
    print("First Class")
elif percentage>=45 and percentage<60:
    print("Second Class")
elif percentage>=35 and percentage<45:
    print("Pass Class")
else:
    print("Fail!!")
```

```
Enter a Marks SUB_1:45
Enter a Marks SUB_2:89
Enter a Marks SUB_3:78
Enter a Marks SUB_4:90
Enter a Marks SUB_5:100
PERCENTAGE: 80.4
Distinction
```

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

In [47]:

```
num1 = int(input("Enter a Number frist:"))
num2 = int(input("Enter a Number second:"))
num3 = int(input("Enter a Number third:"))
num4 = int(input("Enter a Number forth:"))
if num1>num2:
    if num1>num3:
        if num1>num4:
            print("MAXIMUM NUMBER:",num1)
        else:
            print("MAXIMUM NUMBER:",num4)
    else:
        if num3>num4:
            print("MAXIMUM NUMBER:",num3)
        else:
            print("MAXIMUM NUMBER:",num4)
else:
    if num2>num3:
        if num2>num4:
            print("MAXIMUM NUMBER:",num2)
        else:
            print("MAXIMUM NUMBER:",num4)
    else:
        if num3>num4:
            print("MAXIMUM NUMBER:",num3)
        else:
            print("MAXIMUM NUMBER:",num4)
if num1<num2:
    if num1<num3:
        if num1<num4:
            print("MINIMUM NUMBER:",num1)
        else:
            print("MINIMUM NUMBER:",num4)
    else:
        if num3<num4:
            print("MINIMUM NUMBER:",num3)
        else:
            print("MINIMUM NUMBER:",num4)
else:
    if num2<num3:
        if num2<num4:
            print("MINIMUM NUMBER:",num2)
        else:
            print("MINIMUM NUMBER:",num4)
    else:
        if num3<num4:
            print("MINIMUM NUMBER:",num3)
        else:
            print("MINIMUM NUMBER:",num4)
```

```
Enter a Number frist:45
Enter a Number second:78
Enter a Number third:6
Enter a Number forth:8
MAXIMUM NUMBER: 78
MINIMUM NUMBER: 6
```

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

In [49]:

```
num=int(input("Enter a Number:"))
mod = num%2
if mod>0:
    print(num," is odd")
else:
    print(num," is even")
```

Enter a Number:47
47 is odd

04) WAP to determine the roots of the equation $ax^2+bx+c=0$.

In [51]:

```
print("Equation:ax^2 + bx + c")
a=int(input("Enter a:"))
b=int(input("Enter b:"))
c=int(input("Enter c:"))
d = b**2-4*a*c
d1= d**0.5
if d<0:
    print("The roots are imaginary.")
else:
    r1=(-b+d1)/2*a
    r2=(-b-d1)/2*a
    print("The Frist Root:",r1)
    print("The Frist Root:",r2)
```

Equation:ax^2 + bx + c
Enter a:1
Enter b:5
Enter c:10
the root are imaginary.

In []: