

## Python Programming - 2101CS405

### Lab - 2

```
In [ ]: Name : - Vora Yagnik Rajeshbhai  
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```

### if..else..

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

```
In [2]: a = int(input("Enter a Number : "))  
  
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 [4]: a = int(input("Enter a Number : "))  
  
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 [6]: a = int(input("Enter a Number : "))
        b = int(input("Enter b Number : "))

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

20 is Greater

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

          print(a,"is Greater") if(a>b) else print(b,"is Greater")
```

20 is Greater

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

```
In [17]: a = int(input("Enter a Number : "))
          b = int(input("Enter b Number : "))
          c = int(input("Enter c Number : "))

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

30 is Greater

## 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 [19]: year = int(input("Enter Year : "))

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

2024 is leap year

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

```
In [22]: c = int(input("Enter No : "))

          if(c == 1):
```

```

    print("Monday")
elif(c == 2):
    print("Tuesday")
elif(c == 3):
    print("Wednesday")
elif(c == 4):
    print("Thursday")
elif(c == 5):
    print("Friday")
elif(c == 6):
    print("Saturday")
elif(c == 7):
    print("Sunday")
else:
    print("Invalid choice")

```

Invalid choice

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

```

In [25]: a = int(input("Enter A : "))
        b = int(input("Enter B : "))

        c = input("Enter Operation : ")

        if(c == '+'):
            print("Result : ",(a+b))
        elif(c == '-'):
            print("Result : ",(a-b))
        elif(c == '*'):
            print("Result : ",(a*b))
        elif(c == '/'):
            print("Result : ",(a/b))
        else:
            print("Invalid choice")

```

Invalid choice

## 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 [26]: u = int(input("Enter Units : "))
        bill = 0;

        if(u>=1 and u<50):
            bill = u*2.6
        elif(u>=50 and u<100):
            bill = u*3.25
        elif(u>=100 and u<=200):
            bill = u*5.26

```

```
elif(u>200):  
    bill = u*8.45  
  
print("Bill : ",bill)
```

Bill : 1816.7499999999998

## 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 [27]: m1 = int(input("Enter Mark-1 : "))  
m2 = int(input("Enter Mark-2 : "))  
m3 = int(input("Enter Mark-3 : "))  
m4 = int(input("Enter Mark-4 : "))  
m5 = int(input("Enter Mark-5 : "))  
  
avg = (m1+m2+m3+m4+m5)/5;  
  
if(avg<35):  
    print("Fail")  
elif(avg>=35 and avg<45):  
    print("Pass")  
elif(avg>=45 and avg<60):  
    print("Second Class")  
elif(avg>=60 and avg<70):  
    print("First class")  
elif(avg>=70):  
    print("Distinction")  
else:  
    print("Invalid Marks")
```

Distinction

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

```
In [29]: a = int(input("Enter a Number : "))  
b = int(input("Enter b Number : "))  
c = int(input("Enter c Number : "))  
d = int(input("Enter d Number : "))  
max = 0  
min = 0  
  
if(a>b and a>c and a>d):  
    max = a  
elif(b>c and b>d):  
    max = b  
elif(c>d):  
    max = c  
else:  
    max = d
```

```

if(a<b and a<c and a<d):
    min =a
elif(b<c and b<d):
    min = b
elif(c<d):
    min = c
else:
    min = d

print("Max is ",max,"Min is ",min)

```

Max is 48 Min is 15

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

```

In [31]: a = int(input("Enter a number : "))

if(a%2 == 0):
    print("Last Digit is Even")
else:
    print("Last Digit is Odd")

```

Last Digit is Odd

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

```

In [33]: a = int(input("Enter a Number : "))
b = int(input("Enter b Number : "))
c = int(input("Enter c Number : "))

x1 = (-b + (b*b - 4*a*c)**0.5)/2*a
x2 = (-b - (b*b - 4*a*c)**0.5)/2*a

print(x1)
print(x2)

```

(-2+1j)

(-2-1j)