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Python Programming - 2101CS405 ¶

Lab - 2

if..else..

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

In [ ]:

```
n1=int(input("Enter Your Number:"))
if n1>0:
    print("Number Is Positive:")
else:
        print("Number Is Negative")
```

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

In [ ]:

```
n1=int(input("Enter Your Number:"))

if n1%2==0:
    print("Number is even")
else:
    print("Number is odd")
```

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

In [ ]:

```
n1=int(input("Enter Your 1st Number:"))
n2=int(input("enter your 2nd Number:"))

if n1>n2:
    print("n1 is larger")
else :
    print("n2 is larger")

    print(n1," is larger") if  n1>n2 else print (n2," is larger") # Using Ternary Oprator
```

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

In [ ]:

```
n1 = int(input("Enter A Number : "))
n2= int(input("Enter A Number : "))
n3= int(input("Enter A Number : "))
print(n1 if n1 > n2 and n1 > n2 else n2 if n2 > n3 else n3, "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 [ ]:

```
y = int(input("Enter A Year : "))
if y % 4 == 0:
    if y % 100 != 0:
        print(f"{y} Is Leap Year")
else:
    print(f"{y} Is Not Leap Year")
```

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

In [ ]:

```
n = int(input("Enter A Number : "))
if n == 1:
    print("Sunday")
if n == 2:
    print("Monday")
if n == 3:
    print("Tuesday")
if n == 4:
    print("Wednesday")
if n == 5:
    print("Thursday")
if n == 6:
    print("Friday")
if n == 7:
    print("Saturday")
```

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

In [ ]:

```
n1 = int(input("Enter First Number : "))
n2 = int(input("Enter Second Number : "))
print("Sum of Number = +")
print("Substraction of Number = -")
print("Multiplication of Number = *")
print("Division Of Number = / ")
sign = input("Enter Operation : ")

if sign == '+':
    print(f"The Sum Of {n1} and {n2} is ", n1 + n2)

elif sign == '-':
    print(f"The Subtraction Of {n1} and {n2} is ", n1 - n2)

elif sign == '*':
    print(f"The Multiplication Of {n1} and {n2} is ", n1 * n2)

elif sign == '/':
    print(f"The Division Of {n1} and {n2} is ", n1 / n2)
```

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 [ ]:

```
u = int(input("Enter Units : "))
if u > 1 and u < 50:
    print(f"For {u} Units Bill Is ", (u*2.60))
if u > 50 and u < 100:
    print(f"For {u} Units Bill Is ", (u*3.25))
if u > 100 and u < 200:
    print(f"For {u} Units Bill Is ", (u*5.26))
if u > 200:
    print(f"For {u} Units Bill Is ", (u*8.45))
```

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 [ ]:

```
m1 = int(input("Enter Marks : "))
m2 = int(input("Enter Marks : "))
m3 = int(input("Enter Marks : "))
m4 = int(input("Enter Marks : "))
m5 = int(input("Enter Marks : "))
percentage = (m1+m2+m3+m4+m5)/5
if percentage < 35:
    print("Fail")
if percentage > 45 and percentage < 35:
    print("Pass Class")
if percentage > 60 and percentage < 45:
    print("Second Class")
if percentage > 70 and percentage < 60:
    print("First Class")
if percentage > 70:
    print("Distinction")
```

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

In [ ]:

```
n1 = int(input("Enter A Number : "))
n2 = int(input("Enter A Number : "))
n3 = int(input("Enter A Number : "))
n4 = int(input("Enter A Number : "))

print(n1 if n1 > n2 and n1 > n3 and n1 > n4 else n2 if n2 >
      n3 and n3 > n4 else n3 if n3 > n4 else n4, "is largest")
```

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

In [ ]:

```
n = int(input("Enter A Number : "))
num = n % 10
if num % 2 == 0:
    print(f"{num} Is Last Digit And It Is Even")
else:
    print(f"{num} Is Last Digit And It Is Odd")
```

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

In [ ]:

```
import math
a = float(input("Enter Value Of a : "))
b = float(input("Enter Value Of b : "))
c = float(input("Enter Value Of c : "))
d = (b*b-4*a*c)
val = math.sqrt(abs(d))
if d > 0:
    print("Real Roots")
    print(-b+val)/(2*a)
    print(-b-val)/(2*a)
elif d == 0:
    print("Real & Same Roots : ", (-b)/(2*a))
elif d < 0:
    print("Complex Roots")
    print(-b/(2*a), "+i", val)
    print(-b/(2*a), "-j", val)
```