python-programming-lab-2

March 13, 2025

Python Programming - 2301CS404

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Lab-2

1 if..else..

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

[3]:
```
num = float(input('Enter Number'))
if(num > 0):
    print('Number is positive')
else:
    print('Number is Negative')
```

```
Enter Number -10
```

```
Number is Negative
```

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

[5]:
```
num = float(input('Enter Number'))
if(num % 2 == 0):
    print('Number is Even')
else:
    print('Number is Odd')
```

```
Enter Number 3
```

```
Number is Odd
```

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

[7]:
```
num1 = float(input('Enter Number'))
num2 = float(input('Enter Number'))
print('num1 is largest') if num1 > num2 else print('Num2 is Largest')
```

```
Enter Number 20
Enter Number 10
```

```
num1 is largest
```

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

[10]:
```
num1 = float(input('Enter Number'))
num2 = float(input('Enter Number'))
num3 = float(input('Enter Number'))
if (num1 > num2 and num1 > num3):
    print('Num1 is largest')
elif (num2 > num1 and num2 > num3):
    print('Num2 is largest')
else:
    print('Num3 is largest')
```

```
Enter Number 100
Enter Number 10
Enter Number 20
```

```
Num1 is largest
```

1.0.5 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]

[13]:
```
year = int(input('Enter Year'))
if (year % 4 == 0 and year % 100 != 0 or year % 400 == 0 ):
    print('Leap year')
else:
    print('Not Leap year')
```

```
Enter Year 2021
```

```
Not Leap year
```

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

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

[28]:
```
op = input("Enter oprator")
num1 = int(input("Enter number 1"))
num2 = int(input("Enter number 2"))
if (op == '+'):
    ans = int(num1+num2)
    print(ans)
elif (op == '-'):
    ans = int(num1 - num2)
    print(ans)
elif (op == '*'):
    ans = int(num1 * num2)
    print(ans)
elif (op == '/'):
    if(num2 == 0):
        print('Not possible')
    else:
        ans = num1 / num2
        print(ans)
else:
    print("Invalid oprator")
```

```
Enter oprator /
Enter number 1 10
Enter number 2 0

Not possible
```

1.0.8 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

[32]:
```
num1 = int(input("Enter marks 1"))
num2 = int(input("Enter marks 2"))
num3 = int(input("Enter marks 3"))
num4 = int(input("Enter marks 4"))
num5 = int(input("Enter marks 5"))
total = num1+num2+num3+num4+num5
per = (total/500) * 100
if per < 35:
    print("Fail")
elif per < 45 and per > 35:
```

```
    print("pass")
elif per > 45 and per < 60:
    print("Second class")
elif per > 60 and per < 70:
    print("First class")
else:
    print("Distinction")
```

```
Enter marks 1 20
Enter marks 2 40
Enter marks 3 50
Enter marks 4 30
Enter marks 5 10

Fail
```

1.0.9 09) Three sides of a triangle are entered through the keyboard, WAP to check whether the triangle is isosceles, equilateral, scalene or right-angled triangle.

[2]:
```
a = float(input("Enter Number "))
b = float(input("Enter Number "))
c = float(input("Enter Number "))
if(a==b and a == c):
 print("Triangle is Equilateral")
elif(a==b or b == c or c==a):
 print("Triangel is isoceles")
elif((a*a+b*b)==(c*c) or (a*a+c*c)==(b*b) or (c*c+b*b)==(a*a)):
 print("Right Angled")
else :
 print("Scalene")
```

```
Enter Number  10
Enter Number  10
Enter Number  10

Triangle is Equilateral
```

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

[47]:
```
num1 = float(input('Enter Number 1'))
num2 = float(input('Enter Number 2'))
num3 = float(input('Enter Number 3'))

if num1 > num2 and num1 > num3 and num2 > num3:
    print('Num2 is second largest')
elif num2 > num1 and num2 > num3 and num1 > num3:
    print('Num1 is second largest')
else:
```

```
    print('Num3 is second largest')
```

```
Enter Number 1 100
Enter Number 2 100
Enter Number 3 100

Num3 is second largest
```

1.0.11 11) 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

[3]:
```
a = float(input("Enter Number"))
if(a>200):
 print("Bill is : ",{(50*2.6)+(50*3.25)+(100*5.26)+((a-200)*8.45)})
elif(a>100 and a<200):
 print("Bill is : ",{(50*2.6)+(50*3.25)+((a-100)*5.26)})
elif(a>50 and a<100):
 print("Bill is : ",{(50*2.6)+((a-50)*3.25)})
else:
 print("Bill is : ",{(a-50)*2.6})
```

```
Enter Number 1000

Bill is :  {7578.499999999999}
```

[ ]:
```

```