

# Python Programming - 2301CS404

## Lab - 3

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```
In [2]: n = int(input('Enter Number:'))  
  
if n > 0:  
    print(f'{n} is Positive')  
else:  
    print(f'{n} is Negative')
```

Enter Number:3  
3 is Positive

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

```
In [3]: n = int(input('Enter Number:'))  
  
if n % 2 == 0:  
    print(f'{n} is Even')  
else:  
    print(f'{n} is odd')
```

Enter Number:120  
120 is Even

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

```
In [5]: a = int(input('Enter a:'))  
b = int(input('Enter b:'))  
  
if a > b:  
    print(f'{a} is Larger')  
else:  
    print(f'{b} is Larger')  
  
print('Largest Number:', (a if a>b else b))
```

Enter a:34  
Enter b:-70  
34 is Larger  
Largest Number: 34

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

```
In [6]: a = int(input('Enter a: '))
b = int(input('Enter b: '))
c = int(input('Enter c: '))

if a>b:
    if a>c:
        print(f'{a} is Largest')
    else:
        print(f'{c} is Largest')
else:
    if b>c:
        print(f'{b} is Largest')
    else:
        print(f'{c} is Largest')
```

Enter a:10  
 Enter b:30  
 Enter c:35  
 35 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 [7]: year = int(input('Enter Year: '))

if (year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):
    print(f'{year} is Leap Year')
else:
    print(f'{year} is Not Leap Year')
```

Enter Year: 2024  
 2024 is Leap Year

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

```
In [8]: day = int(input('Enter Number of DAY: '))

match day:
    case 1:
        print('Sunday')
    case 2:
        print('Monday')
    case 3:
        print('Tuesday')
    case 4:
        print('Wednesday')
    case 5:
        print('Thursday')
    case 6:
        print('Friday')
```

```

case 7:
    print('Saterday')
case _:
    print('Invalid Day Number !!!')

```

Enter Number of DAY: 7  
Saterday

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

```

In [9]: num1 = int(input('Enter first Number: '))
num2 = int(input('Enter first Number: '))

operation = input('Enter 1 for Addtion\nEnter 2 for Subtraction\nEnter 3

match operation:
    case '1':
        print(f'{num1} + {num2} = {num1 + num2}')
    case '2':
        print(f'{num1} - {num2} = {num1 - num2}')
    case '3':
        print(f'{num1} * {num2} = {num1 * num2}')
    case '4':
        print(f'{num1} / {num2} = {num1 / num2}')
    case _:
        print('Invalid Input !!!')

```

Enter first Number: 30  
Enter first Number: 5  
Enter 1 for Addtion  
Enter 2 for Subtraction  
Enter 3 for Multiplicatin  
Enter 4 for Division  
: 3  
30 \* 5 = 150

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

```

In [10]: mark1 = int(input('Enter Mark of Subject 1: '))
mark2 = int(input('Enter Mark of Subject 2: '))
mark3 = int(input('Enter Mark of Subject 3: '))
mark4 = int(input('Enter Mark of Subject 4: '))
mark5 = int(input('Enter Mark of Subject 5: '))

```

```

percentage = (mark1 + mark2 + mark3 + mark4 + mark5)/5

if percentage > 70:
    print('Distinction')
elif percentage > 60:
    print('First Class')
elif percentage > 45:
    print('Second Class')
elif percentage > 35:
    print('Pass Class')
else:
    print('Fail')

```

```

Enter Mark of Subject 1: 30
Enter Mark of Subject 2: 36
Enter Mark of Subject 3: 70
Enter Mark of Subject 4: 50
Enter Mark of Subject 5: 90
Second Class

```

### 09) WAP to find the second largest number among three user input numbers.

```

In [11]: a = int(input('Enter First Number:'))
b = int(input('Enter Second Number:'))
c = int(input('Enter Third Number:'))

if (a<b<c) or (c<b<a):
    print(f'{b} is second largest')
elif (a<c<b) or (b<c<a):
    print(f'{c} is second largest')
else:
    print(f'{a} is second largest')

```

```

Enter First Number:10
Enter Second Number:20
Enter Third Number:5
10 is second largest

```

### 10) 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 [14]: units = int(input('Enter Units: '))
total_bill = 0

if 1 <= units <= 50:
    total_bill = (units*2.60)
elif 50 < units <= 100:
    total_bill = ((units-50)*3.25) + (50*2.60)

```

```
elif 100 < units <= 200:  
    total_bill = ((units-100)*5.26) + (50*3.25) + (50*2.60)  
else:  
    total_bill = ((units-200)*5.26) + (100*5.26) + (50*3.25) + (50*2.60)  
  
print(f'Total Bill = {total_bill} Rs.')
```

Enter Units: 165  
Total Bill = 634.4 Rs.