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Python Programming - 2301CS404

Lab - 2

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if..else..

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

In [2]:
```
n = int(input("Enter the number : "))
if n>0 :
    print("n is Positive")
elif n==0:
    print ("n is Zero")
else:
    print("n is negative")
```

```
n is negative
```

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

In [6]:
```
n = int(input("Enter the number :"))
if n%2==0 :
    print("N is even")
else :
    print("N is odd")
```

```
Enter the number :33
N is odd
```

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

In [1]:
```
n1 = int(input("Enter the first Number : "))
n2 = int(input("Enter the second Number : "))

#ernary operator
largest = n1 if n1 > n2 else n2
print("Largest is :",largest)

#if
if n1>n2 :
    largest = n1
else:
    largest = n2
print("Largest is :",largest)
```

```
Largest is : 45
Largest is : 45
```

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

In [14]:
```
n1 = int(input("Enter the first Number : "))
n2 = int(input("Enter the second Number : "))
n3 = int(input("Enter the third Number : "))

if n1>n2:
    if n1>n3:
        largest = n1
    else:
        largest = n3
else:
    if n2>n3:
        largest = n2
    else:
        largest = n3
print("Largest is :",largest)
```

```
Enter the first Number : 45
Enter the second Number : 32
Enter the third Number : 12
Largest is : 45
```

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 [20]:
```
year = int(input("Enter the year : "))

if (year%400 == 0) and (year%100 == 0):
    print(year,"is a Leap Year.")
elif (year%4 == 0) and (year%100 != 0):
    print(year,"is a Leap Year.")
else:
    print(year,"is not a Leap Year.")
```

```
Enter the year : 2024
2024 is a Leap Year.
```

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

In [14]:
```
n = int(input("Enter the 1 to 7 number :"))
n = n - 1
mylist = ["Sunday","Monday","Tuesday","Wendesday","Thurseday","Friday","Satureda
#match case

match n:
    case 0:
        print(mylist[n])
    case 1:
        print(mylist[n])
    case 2:
        print(mylist[n])
    case 3:
        print(mylist[n])
    case 4:
        print(mylist[n])
    case 5:
        print(mylist[n])
    case 6:
        print(mylist[n])
    case _:
        print("Wrong Input!")
```

```
Enter the 1 to 7 number :5
Thurseday
```

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

In [5]:
```
a = int(input("Enetr the first number : "))
b = int(input("Enter the second number : "))
op = input("Enter the Opration : ")

if op=='+':
    print("a+b = ",a+b)
elif op=='-':
    print("a-b = ",a-b)
elif op=='*':
    print("a*b = ",a*b)
elif op=='/':
    print("a/b = ",a/b)
else:
    print("Wrong Input!")
```

```
Enetr the first number : 90
Enter the second number : 89
Enter the Opration : -
a-b =  1
```

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]:
```
s1 = int(input("Enter the marks of subject-1 : "))
s2 = int(input("Enter the marks of subject-2 : "))
s3 = int(input("Enter the marks of subject-3 : "))
s4 = int(input("Enter the marks of subject-4 : "))
s5 = int(input("Enter the marks of subject-5 : "))

per = ((s1+s2+s3+s4+s5)/500)*100;

if per>=70:
    print("Distinction")
elif per>=60 and per<70:
    print("First class")
elif per>=45 and per<60:
    print("Second class")
elif per>=35 and per<45:
    print("Third class")
else:
    print("fail")
```

```
Enter the marks of subject-1 : 56
Enter the marks of subject-2 : 78
Enter the marks of subject-3 : 90
Enter the marks of subject-4 : 76
Enter the marks of subject-5 : 45
First class
```

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.

In [2]:
```
a = int(input("Enter the first side : "));
b = int(input("Enter the second side : "));
c = int(input("Enter the third side : "));

if (a==b==c):
    print("Equilateral Triangle.");
elif (a==b) or (a==c) or (b==c):
    print("Isosceles Triangle.")
else:
    print("Scalene Triangle.")

if ((a*a) == (b*b) + (c*c)) or ((b*b) == (a*a)+(c*c)) or ((c*c) == (a*a)+(b*b)):
    print("Right-Angled Triangle.")
```

```
Scalene Triangle.
Right-Angled Triangle.
```

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

In [12]:
```
a = int(input("Enter the first Number : "))
b = int(input("Enter the second Number : "))
c = int(input("Enter the third Number : "))
```

```
if a>b and a>c:
    if b>c:
        print(b,"is second Largest.")
    else:
        print(c,"is second Largest.")

if b>a and b>c:
    if a>c:
        print(a,"is second Largest.")
    else:
        print(c,"is second Largest.")

if c>a and c>b:
    if a>b:
        print(a,"is second Largest.")
    else:
        print(b,"is second Largest.")
```

```
50 is second Largest.
```

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

In [15]:
```
n = int(input("Enter the Electricity Unit : "))
totalAmount = 0

if n>=1 and n<50:
    totalAmount = 2.6 * n
elif n>=50 and n<100:
    totalAmount = 3.25 * n
elif n>=100 and n<200:
    totalAmount = 5.26 * n
elif n>=200:
    totalAmount =  8.45 * n

print("Total Amount : ",totalAmount)
```

```
Total Amount :  920.5
```