Darshan UNIVERSITY

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Python Programming - 2101CS405

Lab - 2

if..else..

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

In [9]:
```
a=int(input("enter a number"))
if a>0:
    print("number is positive")
elif a<0:
    print("number is nagative")
else :
    print("number is zero")
```

```
enter a number-1
number is nagetive
```

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

In [11]:
```
a= int(input("enter a number:"))
if a%2==0:
    print("number is even")
else:
    print("number is odd")
```

```
enter a number:4
number is even
```

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

In [12]:
```
 a=int(input("enter number a :"))
 b=int(input("enter number b :"))
 if a>b:
     print("a is greater")
 else:
     print("b is greater")
```

```
enter a number4
enter a number7
b is greater
```

In [13]:
```
 a=int(input("enter number a :"))
 b=int(input("enter number b :"))
print(a,"is greater") if a>b else print(b,"is greater")
```

```
enter number a :3
enter number b :2
3 a is greater
```

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

In [16]:
```
 a=int(input("enter number a :"))
 b=int(input("enter number b :"))
 c=int(input("enter number c :"))
if a>b and a>c:
    print(a,"is greater")
elif b>a and b>c:
    print(b,"is greater")
elif c>a and c>b:
    print(c,"is greater")
```

```
enter number a :3
enter number b :6
enter number c :4
6 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 [21]:
```
y=int(input("enter a year :"))
if y%4==0 and y%100!=0:
    print(y,"is leap year")
elif y%400==0:
     print(y,"is leap year")
else:
    print(y,"is  not leap year")
```

```
enter a 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 [22]:
```
a=int(input("enter a number between 1 to 7:"))
if a==1:
    print("it is sunday")
elif a==2:
    print("it is monday")
elif a==3:
    print("it is tuesday")
elif a==4:
    print("it is wednesday")
elif a==5:
    print("it is thrusday")
elif a==6:
    print("it is friday")
elif a==7:
    print("it is saturday")
```

```
enter a number between 1 to 7:5
it is thrusday
```

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

In [2]:
```
n=int(input("enter 1 for addition \n enter 2 for subtraction \n enter 3 for multiplication \n enter 4 for division \n"))
a=int(input("enter a number"))
b=int(input("enter a number"))
if n==1:
    print("sum:",a+b)
elif n==2:
    print("subtraction:",a-b)
elif n==3:
    print("multiplication:",a*b)
elif n==4:
    print("division:",a/b)
```

```
enter 1 for addition
 enter 2 for subtraction
 enter 3 for multiplication
 enter 4 for division
4
enter a number4
enter a number2
division: 2.0
```

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 [5]:
```
unit= int(input("enter unit:"))

if unit>=1 and unit<50:
    bill=unit*2.60
elif unit>=50 and unit<=100:
    new_bill=unit-50
    bill=(new_bill*3.25)+(50*2.50)
elif unit>=100 and unit<=200:
    new_bill=unit-100
    bill=(new_bill*5.26)+(50*2.50)+(50*3.25)
elif unit>=200:
     new_bill=unit-100
     bill=(new_bill*8.45)+(50*2.50)+(50*3.25)+(50*5.26)

print("Electricity bill is :","Rs.",bill)
```

```
enter unit:135
Electricity bill is : Rs. 471.6
```

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 [8]:
```
sub1= int(input("enter marks of sub1:"))
sub2= int(input("enter marks of sub2:"))
sub3= int(input("enter marks of sub3:"))
sub4= int(input("enter marks of sub4:"))
sub5= int(input("enter marks of sub5:"))
#total marks=350(per sub 70 marks)
per=((sub1+sub2+sub3+sub4+sub5)/350)*100
print("percentage:",per,"%")
if per<=35:
    print("faill")
elif per>35 and per<45:
    print("pass class")
elif per>45 and per<60:
    print("second class")
elif per>60 and per<70:
    print("first class")
elif per>=70:
    print("distinction")
```

```
enter marks of sub1:40
enter marks of sub2:40
enter marks of sub3:46
enter marks of sub4:42
enter marks of sub5:56
percentage: 64.0 %
first class
```

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

In [1]:
```
#for maximum number
a=int(input("enter number a :"))
b=int(input("enter number b :"))
c=int(input("enter number c :"))
d=int(input("enter number d :"))
if a>b and a>c:
    if a>d:
        print(a,"is greater")
if b>a and b>c:
    if b>d:
        print(b,"is greater")
if c>a and c>b:
    if c>d:
        print(c,"is greater")
if d>a and d>b:
    if d>c:
        print(d,"is greater")

#for minimum number
if a<b and a<c:
    if a<d:
        print(a,"is minimun")
if b<a and b<c:
    if b<d:
        print(b,"is minimum")
if c<a and c<b:
    if c<d:
        print(c,"is minimum")
if d<a and d<b:
    if d<c:
        print(d,"is minimum")
```

```
enter number a :4
enter number b :7
enter number c :9
enter number d :5
9 is greater
4 is minimun
```

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

In [14]:
```
a=int(input("enter a number:"))
last_digit= a%10
if last_digit%2==0:
    print("last digit is even")
else:
    print("last digit is odd")
```

```
enter a number:334
last digit is even
```

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

In [20]:
```
a=int(input("enter number a :"))
b=int(input("enter number b :"))
c=int(input("enter number c :"))
d=(b*b)-(4*a*c)
if d>0:
    m1=(-b+(d)**0.5)/2*a
    m2=(-b-(d)**0.5)/2*a
    print("roots are:",m1,m2)
elif d==0:
    m1=m2=b/2*a
    print("roots are:",m1,m2)
else:
    print("roots are imaginery:")
```

```
enter number a :1
enter number b :4
enter number c :4
roots are: 2.0 2.0
```

In [ ]:
```

```