Python Programming - 2301CS404

Lab - 2

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if..else..

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

```
In [5]:  a = int(input("Enter the number"))
         print("possitive") if a > 0 else ( print("Negative") if a < 0 else print("Number is
```

possitive

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

```
In [6]:  a = int(input("Enter the number"))
         print("Odd") if (a%2 != 0) else print("Even")
```

Even

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

```
In [8]:  a = int(input("Enter the number 1"))
         b = int(input("Enter the number 2"))
         print(f"{a} is large") if a > b else (print(f"{b} is large") if b > a else print("b
```

both are same

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

```
In [12]:  a = int(input("Enter the number 1"))
          b = int(input("Enter the number 2"))
          c = int(input("Enter the number 3"))
          if (a > b):
              if (a > c) :
                  print(f"{a} is large")
              else:
                  print(f"{c} is large")
          else:
              if (b > c) :
                  print(f"{b} is large")
              else:
                  print(f"{c} is large")
```

14 is large

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 [15]:  a = int(input("Enter the year"))
          print("given year is leep year") if (a%4==0 or a%100==0 and a%400 != 0) else print(
```

given year is leep year

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

```
In [27]:  arr = ["S","M","T","W","Th","F","Sa"]
          print("Consider Sunday is 1")
          a = int(input("Enter the number and get the name of the day"))
          print("Ivalid number") if (a>7 or a<=0) else print(arr[a-1])


          # match :
          #     case :
          #     case :
          #       .
          #       .
          #       .
          #     case_:
          #         contant
```

Consider Sunday is 1
Ivalid number

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

```
In [28]:  a = int(input("Enter the number 1"))
          b = int(input("Enter the number 2"))
```

```python
print("if you went to add so click 1")
print("if you went to sub so click 2")
print("if you went to mul so click 3")
print("if you went to div so click 4")
c = int(input("Enter the number"))
if c == 1 :
    print(a+b)
elif c == 2:
    print(a-b)
elif c == 3:
    print(a*b)
elif c==4:
    print(a/b)
else:
    print("Invalid")
```

```
if you went to add so click 1
if you went to sub so click 2
if you went to mul so click 3
if you went to div so click 4
144
```

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 [29]:
```python
a = int(input("Enter the number 1"))
b = int(input("Enter the number 2"))
c = int(input("Enter the number 3"))
d = int(input("Enter the number 4"))
e = int(input("Enter the number 5"))
p = ((a+b+c+d+e)*100)/500
print(f"percentage is : {p}")
if p < 35:
    print("Fail")
elif a >= 35 and a < 45:
    print("Pass Class between")
elif a >= 45 and a<60 :
    print("Second Class")
elif a>=60 and a<70 :
    print("First Class")
else:
    print("Distinction")
```

```
percentage is : 32.0
Fail
```

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 [35]: a = int(input("Enter the side 1"))
         b = int(input("Enter the side 2"))
         b = int(input("Enter the side 3"))
         if a == b == c :
             print("equilateral")
         elif ((a*a) + (b*b) == (c*c)) or ((b*b) + (c*c))==(a*a) or ((a*a) + (c*c) == (b*b))
             print("right-angled triangle")
         elif a != b != c:
             print("Scalene")
         else:
             print("isosceles")
```

Scalene

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

```
In [1]: a = int(input("Enter 1st side : "))
        b = int(input("Enter 2nd side : "))
        c = int(input("Enter 3rd size : "))


        if ((a > b) and (a < c)) or ((a > c) and (a < b)):
            print("A is second Largest")
        elif ((b > a) and (b < c)) or ((b > c) and (b < a)):
            print("B is second Largest")
        else:
            print("C is second Largest")
```

B 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 [2]: u = int(input("Enter Unit  : "))

        if(u<=50) :
                    r=u*2.60;
        elif(u<=150) :
                    r=50*260+(u-50)*3.25
        elif(u<=250) :
                    r=50*2.60+100*3.25+(u-150)*5.26
        elif (u>250) :
                    r=50*2.60+100*3.25+100*5.26+(u-250)*8.45

        i=r*0.20
        r=r+i

        print(r)
```

```
8782.199999999999
```

In [ ]: