Geeksforgeeks Recommended problems on Conditional statements

In [ ]:
```
# link-- https://www.geeksforgeeks.org/python/conditional-statements-in-python/
```

1. If conditional statement- Python

j_angry = True, s_angry = True

In [1]:
```
def friends_in_trouble(j_angry, s_angry):
    if(j_angry & s_angry):
        return True
    else:
        return False
j_angry = True
s_angry = True
if friends_in_trouble(j_angry,s_angry):
    print('True')
else:
    print('False')
```

```
True
```

j_angry = True, s_angry = False

In [2]:
```
def friends_in_trouble(j_angry, s_angry):
    if(j_angry & s_angry):
        return True
    else:
        return False
j_angry = True
s_angry = False
if friends_in_trouble(j_angry,s_angry):
    print('True')
else:
    print('False')
```

```
False
```

2. Mark Even and Odd - Python

In [3]:
```
num=int(input('Enter a number:'))

if num%2==0:
    print(num,'is even number')
else:
    print(num,'is odd number')
```

```
7 is odd number
```

3. Check the status

In [10]:
```
a=int(input('Enter either Positive or Negative Number:'))
b=int(input('Enter either Positive or Negative Number:'))
if (a>0 and b>0):
    Flag=True
    print('Flag Value is ',Flag)
elif (a<0 and b<0):
    Flag=True
    print('Flag Value is ',Flag)
elif (a==0 or b==0):
    print('one of the given number is zero')
else:
    Flag=False
    print('Flag Value is ',Flag)
```

```
Flag Value is  False
```

4. Cat and Hat

In [12]:
```
text=input('enter the text to count how many times cat and hat present')
count_cat=text.count('cat')
count_hat=text.count('hat')
if (count_cat>0 or count_hat>0):
    print('cat and hat both are present')
    print('cat present', count_cat, 'times')
    print('hat present', count_hat, 'times')
else:
    print('cat and hat both not present in given text')
```

```
cat and hat both are present
cat present 3 times
hat present 1 times
```

5. The Else Statement

Given an integer a, you have to use the if statement to print "Big" (without quotes) if the given number is greater than 100, and use the else statement to print "Number" (without quotes) when the number is smaller than or equal to 100.

In [14]:
```
a=int(input('enter an integer'))
if a>100:
    print('Big')
else:
    print('Number')
```

```
Number
```

6. The FizzBuzz Program

You are given a number a and you have to print your answer according to the following:

If the number is divisible by 3, you print "Fizz" (without quotes)

If the number is divisible by 5, you print "Buzz" (without quotes)

If the number is divisible by both 3 and 5, you print "FizzBuzz" (without quotes)

In any other case, you print the number itself

In [15]:
```
a=int(input('enter any positive number'))
if a%3==0 and a%5==0:
    print('FizzBuzz')
elif a%3==0:
    print('Fizz')
elif a%5==0:
    print('Buzz')
else:
    print(a)
```

```
FizzBuzz
```

7. Even Odd Game

In [16]:
```
a=int(input('enter how many apples are there in bag'))
if a%2==0:
    print('Friend wins')
else:
    print('You wins')
```

```
Friend wins
```

8. Odd or even

In [18]:
```
n=int(input('enter a positive number'))
if n%2==0:
    print('true')
else:
    print('false')
```

```
false
```

9. Greatest of Three

In [19]:
```
a,b,c=2,2,5
if a>b and a>c:
```

```
    greatest_number=a
elif b>a and b>c:
    greatest_number=b
else:
    greatest_number=c
print('Out of (',a,',',b,',',c,')',greatest_number, 'is the greatest.')
```

```
Out of ( 2 , 2 , 5 ) 5 is the greatest.
```

10. Leap Year

In [22]:
```
year=int(input('Enter a year'))
if (year % 4==0 and year % 100!=0) or (year % 400 ==0):
    print('Year',year,'is a Leap Year')
else:
    print('Year',year,'is not a Leap Year')
```

```
Year 2004 is a Leap Year
```

11. Calculator

In [24]:
```
print('we are building a calculator')
a=int(input('Enter First Number'))
b=int(input('Enter Second Number'))
print('For addition press 1, For Substraction press 2, For Multiplication press 3')
operator=int(input('Press'))
if operator==1:
    print(a+b)
elif operator==2:
    print(a-b)
elif operator==3:
    print(a*b)
else:
    print('Invalid Input')
```

```
we are building a calculator
For addition press 1, For Substraction press 2, For Multiplication press 3
-2
```

12. Closest Number

In [26]:
```
def closest_divisible(n,m):
    q=n//m
    lower=m*q
    upper=m*(q+1) if m>0 else m*(q-1)
    if abs(n-lower) < abs(n-upper):
        return lower
    elif abs(n-lower) > abs(n-upper):
        return upper
    else:
        return max(lower, upper, key=abs)
print(closest_divisible(13,4))
print(closest_divisible(-15,6))
```

```
12
-18
```

13. The dice problem

In [29]:
```
n=int(input('Enter Dice Face Number in the range of 1 to 6'))
if 1<= n<=6:
    print('Opposite of Dice Facing is:',(7-n))
else:
    print('Please enter valid number in the range of 1 to 6')
```

```
Opposite of Dice Facing is: 3
```

14. Factorial

In [31]:
```
num=int(input('enter a number'))
factorial=1
for i in range(1,num+1):
    factorial *=i
print('Factorial of',num,'is:',factorial)
```

```
Factorial of 6 is: 720
```

15. Check Prime

In [34]:
```
num=int(input('Enter a number'))
count=0
if(num>1):
    for i in range(2,num):
        if(num%i==0):
            count=1
            break
if(count==1):
    print('Given number is not a prime number')
elif(count==0):
    print('Given number is a prime number')
```

```
Given number is a prime number
```

In [ ]:

In [ ]: