Nested Conditionals

In [1]:

```
if input("Say Hello (y/n):").lower() == "y":
    if input().lower() == "Hello".lower():
        print('Hello')
    else:
        print('Hi')
else:
    print('friendly nod')
```

```
Say Hello (y/n):y
Hi
Hi
```

In [2]:

```
bird_games = "sparrow pegiun peacock"
if input("1.Guess bird name:").lower() not in bird_games:
    if input("2.Guess bird name:").lower() not in bird_games:
        if input("3.Guess bird name:").lower() not in bird_games:
            print("Sorry out of tries")
        else:
            print("Yes 3rd try")
    else:
        print("Yes 2nd try")
else:
    print("Yes 1st try")
```

```
1.Guess bird name:crow
2.Guess bird name:PEGIUN
Yes 2nd try
```

ESCAPE SEQUENCE

\, \', \", \t, \n

In [3]:

```
print("\\\WARNING///")
```

```
\\WARNING///
```

In [4]:

```
print("\"What\'s that?\"")
```

```
"What's that?"
```

In [5]:

```
print("One\tTwo\tThree\nFour\tFive\tSix")
```

```
One Two Three
Four Five Six
```

In [6]:

```
def pre_word(s):
    if s.startswith('pre'):
        if s.isalpha():
            return True
        else:
            return False
    else:
        return False
word = input("Enter a word that starts with \"pre\":")
if not pre_word(word):
    print("Not a \"pre\"word")
else:
    print("a \"pre\"word")
```

```
Enter a word that starts with "pre":preposition
a "pre"word
```

'while' loop and incrementing

In [7]:

```
familiar_name = ""
while True:
    x = input('Enter Familiar Name:')
    familiar_name = familiar_name +' ' + x
    if x == '':
        print("Have a nice day\t",familiar_name)
        break
```

```
Enter Familiar Name:ashu
Enter Familiar Name:aman
Enter Familiar Name:
Have a nice day    ashu aman
```

In [8]:

```
count = 0
S = 0
M = 0
L = 0
print("S:Small, M:Medium, L:Large, e:exit")
while True:
    x = input("Enter the size of shirt:")
    if x.lower() == 's':
        S +=1
    elif x.lower() == 'm':
        M += 1
    elif x.lower() == 'l':
        L += 1
    elif x.lower().startswith('e'):
        break
print("Report of purchase:")
print("Bucket List\tQuantity\tCost")
print("Small size shirts:\t", S,"\t",S * 6)
```

```
print("Medium size shirts:\t", M,"\t", M * 7)
print("Large size shirts:\t", L,"\t",L * 8)
print("Total Cost\t\t\t",S * 6 + M * 7 + L * 8)
```

```
S:Small, M:Medium, L:Large, e:exit
Enter the size of shirt:m
Enter the size of shirt:l
Enter the size of shirt:s
Enter the size of shirt:m
Enter the size of shirt:k
Enter the size of shirt:exit
Report of purchase:
Bucket List Quantity Cost
Small size shirts:  1    6
Medium size shirts:  2    14
Large size shirts:  1    8
Total Cost    28
```

In [9]:

```
 x = 0

while True:
    if x < 10:
        print('run forever')
        x += 1
    else:
        break
```

```
run forever
run forever
run forever
run forever
run forever
run forever
run forever
run forever
run forever
run forever
```

while loop with Boolean Comparisons

In [11]:

```
animal_name = ""
num_animals = 0
while True:
    animal = input("Enter the animal name:")
    if animal == '':
        print("no animals")
        break
    else:
        animal_name = animal_name +" " + animal
        num_animals += 1
print(animal_name)
```

```
Enter the animal name:dog
Enter the animal name:cat
```

```
Enter the animal name:lion
Enter the animal name:
no animals
 dog cat lion
```

In [13]:

```
int_num = input("Only digit (positive)")
long_num = ""
while int_num.isdigit() == True:
    long_num += int_num  + " "
    int_num = input("Only digit (positive)")
print(long_num)
```

```
Only digit (positive)5
Only digit (positive)6
Only digit (positive)7
Only digit (positive)-6
5 6 7
```

In [14]:

```
# [ ] review the code, run, fix the Logic error
count = 1

# loop 5 times
while count > 6:
    print(count, "x", count, "=", count*count)
    count +=1
```

In [15]:

```
# [ ] review the code, run, fix the Logic error
count = 1

# loop 5 times
while count < 6:
    print(count, "x", count, "=", count*count)
    count +=1
```

```
1 x 1 = 1
2 x 2 = 4
3 x 3 = 9
4 x 4 = 16
5 x 5 = 25
```

PRACTICE

In [16]:

```
print("The new line character is \"\\n\"")
```

```
The new line character is "\n"
```

In [17]:

```
print("\"That\'s how we escape!\"")
```

```
"That's how we escape!"
```

In [18]:

```
print("#1\tone\n#22\ttwo\n#333\tthree")
```

```
#1 one
#22 two
#333 three
```

In [19]:

```
def quote_me(str1):
    return "\"" + str1 + "\""
str2 = input("Enter a string:")
print(quote_me(str2))
```

```
Enter a string:Hi there
"Hi there"
```

In [6]:

```
available = False
shirt_color = input("shirt color:").lower()
shirt_size = input("shirt size:").lower()

if shirt_color == "blue":
    if shirt_size == 'm' or shirt_size == 's':
        available = True
elif shirt_color == "white":
    if shirt_size == 'm' or shirt_size == 'l':
        available = True
else:
        available = False

if available:
    print(shirt_color, " of size ",shirt_size," is available.")
else:

    print(shirt_color, " of size ",shirt_size," is not available.")
```

```
shirt color:blue
shirt size:m
blue  of size  m  is available.
```

In [5]:

```
def str_analysis(str1):
    if str1.isdigit():
        if int(str1) > 99:
            print("big number")
        else:
            print("small number")
    elif str1.isalpha():
        print(str1)
    else:
        print("Neither all alpha nor all digit")
str_analysis(input("Enter input:"))
```

```
Enter input:67
small number
```

In [4]:

```
def ticket_check(section, seats):
    if section.startswith('g'):
        if seats >= 1 and seats <= 10:
            return True
    elif section.startswith('f'):
        if seats >= 1 and seats <= 4:
            return True
    else:
        return False
sec = input("Enter section:").lower()
st = int(input("Enter seat number:"))
if ticket_check(sec,st):
    print("Correct Entry")
else:
    print("Wrong Entry")
```

```
Enter section:GENERAL
Enter seat number:7
Correct Entry
```

In [3]:

```
int_num = input("enter digit for sum:")
sum = 0
while int_num.isdigit():
    sum = sum + int(int_num)
    int_num = input("enter digit for sum:")
print(sum)
```

```
enter digit for sum:2
enter digit for sum:3
enter digit for sum:5
enter digit for sum:2
enter digit for sum:4
enter digit for sum:
16
```

In [2]:

```
rainbow = "red orange yellow green blue indigo violet"
chance = 0
while chance < 4:
    chance += 1
    if input("Enter color:").lower() in rainbow:
        print("[",chance,"] Guess")
        break;
if chance != 4:
    print("NO chances left")
```

```
Enter color:pink
Enter color:brown
Enter color:black
Enter color:red
[ 4 ] Guess
```

In [9]:

```
title = input("Enter book title:")
while title.isupper() != True:
    title = input("Enter book title:")
print(title)
```

```
print(title)
```

```
Enter book title:the jungle book
Enter book title:The Jungle Book
Enter book title:THE JUNGLE BOOK
THE JUNGLE BOOK
```

In [13]:

```
answer = input('3 + 4 =')
while answer != '7':
    print("Wrong answer")
    answer = input('3 + 4 =')
print("Correct answer")
```

```
3 + 4 =5
Wrong answer
3 + 4 =-2
Wrong answer
3 + 4 =8
Wrong answer
3 + 4 =7
Correct answer
```

In [14]:

```
# [ ] review the code, run, fix the error
tickets = input("enter tickets remaining (0 to quit): ")

while tickets > 0:
        # if tickets are multiple of 3 then "winner"
    if int(tickets/3) == tickets/3:
        print("you win!")
    else:
        print("sorry, not a winner.")
    tickets = int(input("enter tickets remaining (0 to quit): "))

print("Game ended")
```

```
enter tickets remaining (0 to quit): 5
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-14-9de0b58a63a0> in <module>()
      2 tickets = input("enter tickets remaining (0 to quit): ")
      3
----> 4 while tickets > 0:
      5         # if tickets are multiple of 3 then "winner"
      6     if int(tickets/3) == tickets/3:

TypeError: '>' not supported between instances of 'str' and 'int'
```

In [17]:

```
# [ ] review the code, run, fix the error
tickets = int(input("enter tickets remaining (0 to quit): "))

while tickets > 0:
        # if tickets are multiple of 3 then "winner"
    if int(tickets)%3 == 0:
        print("you win!")
    else:
```

```
        print("sorry, not a winner.")
    tickets = int(input("enter tickets remaining (0 to quit): "))

print("Game ended")
```

```
enter tickets remaining (0 to quit): 34
sorry, not a winner.
enter tickets remaining (0 to quit): 33
you win!
enter tickets remaining (0 to quit): 0
Game ended
```

In [25]:

```
def quiz_item(ques, sol):
    while sol.lower().startswith('t'):
        sol = input(ques)
    return True
question = "Is 3 greater than 5?"
if quiz_item(question,input(question)):
    print("right answer")
```

```
Is 3 greater than 5?t
Is 3 greater than 5?T
Is 3 greater than 5?True
Is 3 greater than 5?true
Is 3 greater than 5?FAlse
right answer
```

In [27]:

```
def str_analysis(str1):
    if str1.isdigit():
        if int(str1) > 99:
            print(str1," is a pretty big number")
        else:
            print(str1," is smaller number than expected")
    elif str1.isalpha():
        print("\"str1," is all alphabet character")
    else:
        print(str1," is multiple character digit")
str_num = input("Enter word or integer:")
while str_num == "":
    str_num = input("Enter word or integer:")
str_analysis(str_num)
```

```
Enter word or integer:
Enter word or integer:
Enter word or integer:
Enter word or integer:Hello
Hello  is all alphabet character
```