Function Beginner examples

January 8, 2022

1 Function that takes 2 numbers and returns the lesser number if both are even. If one or both numbers are odd, the function returns greater number.

[2]:
```
def lesser_or_greater(x,y):
    if x % 2 == 0 and y % 2 == 0:
        if x < y:
            result = x
        else:
            result = y
    else:
        if x > y:
            result = x
        else:
            result = y
    return result
```

[3]:
```
lesser_or_greater(2,4)
```

[3]: 2

[4]:
```
lesser_or_greater(2,7)
```

[4]: 7

[5]:
```
lesser_or_greater(9,11)
```

[5]: 11

2 using min and max functions

[6]:
```
def lesser_or_greater(x,y):
    if x % 2 == 0 and y % 2 == 0:
        result = min(x,y)
    else:
        result = max(x,y)
    return result
```

[7]:
```
lesser_or_greater(2,4)
```

[7]: 2

[8]:
```
lesser_or_greater(3,5)
```

[8]: 5

[9]:
```
lesser_or_greater(3,6)
```

[9]: 6

3 Function that returns true if the starting letter of two words in a string is same. otherwise false.

[10]:
```
def two_words(mylist):
    new_list = mylist.split()
    print(new_list)
    first_word = new_list[0]
    second_word = new_list[1]
    if first_word[0] == second_word[0]:
        return True
    else:
        return False
```

[12]:
```
two_words('Sri Harsha')
```

```
['Sri', 'Harsha']
```

[12]: False

[13]:
```
two_words('Peter Parker')
```

```
['Peter', 'Parker']
```

[13]: True

[14]:
```
two_words('Peter parker')
```

```
['Peter', 'parker']
```

[14]: False

4 same example using double indexing

[17]:
```
def words(mylist):
    new_list = mylist.split()
    print(new_list)
    return new_list[0][0] == new_list[1][0]
```

[18]:
```
words('Aslesh Babu')
```

```
['Aslesh', 'Babu']
```

[18]: False

[19]:
```
# if the same letter with uppercase and lowercase is encountered
words('Aslesh akshintala')
```

```
['Aslesh', 'akshintala']
```

[19]: False

[24]:
```
# returns false , so using a lower function

def words(mylist):
    new_list = mylist.lower().split()
    print(new_list)
    return new_list[0][0] == new_list[1][0]
```

[25]:
```
words('Aslesh akshintala')
```

```
['aslesh', 'akshintala']
```

[25]: True

[26]:
```
# we can use upper() also


def words(mylist):
    new_list = mylist.upper().split()
    print(new_list)
    return new_list[0][0] == new_list[1][0]
```

[27]:
```
words('Aslesh akshintala')
```

```
['ASLESH', 'AKSHINTALA']
```

[27]: True

5 Function that returns True if sum of the two numbers is 20 or if one of the numbers is 20.

[31]:
```
def twenty(a,b):
    if a + b == 20:
        return True
    elif a == 20:
        return True
    elif b == 20:
        return True
    else:
        return False
```

[32]:
```
twenty(12,8)
```

[32]: True

[33]:
```
twenty(20,20)
```

[33]: True

[34]:
```
twenty(20,30)
```

[34]: True

[36]:
```
twenty(15,10)
```

[36]: False

[37]:
```
# Since here everything is a boolean check , we can use logical operators that␣
 ↪reduces the code

def twenty(a,b):
    return (a + b) == 20 or a == 20 or b == 20
```

[38]:
```
twenty(10,20)
```

[38]: True

[39]:
```
twenty(20,5)
```

[39]: True

[40]:
```
twenty(15,13)
```

[40]:
```
False
```

[41]:
```
twenty(15,5)
```

[41]:
```
True
```

6 Function that capitalizes the first and fourth letters of a string

[51]:
```
def name(myname):
    first_letter = myname[0]
    second_to_third = myname[1:3]
    fourth_letter = myname[3]
    last_letters = myname[4:]
    return first_letter.upper() + second_to_third + fourth_letter.upper() +␣
 ↪last_letters
```

[52]:
```
name('sriharsha')
```

[52]:
```
'SriHarsha'
```

[53]:
```
# Using capitalize() -- turns the first charcater of the string to capital
def name(myname):
    initial_part = myname[0:3]
    final_part = myname[3:]
    return initial_part.capitalize() + final_part.capitalize()
```

[54]:
```
name('sriharsha')
```

[54]:
```
'SriHarsha'
```

[55]:
```
name('pythonprogramming')
```

[55]:
```
'PytHonprogramming'
```

[ ]:

[ ]: