CLASS NOTES

Question: What exactly is a function in python? Answer: A function is a block of reusable code that performs a specific task.

In [ ]:

Question: Can we pass data to a function?

Answer: Yes, the data that is passed to a function during function call is called as arguments

For example:

In [41]:
```python
def greet(name):
    print("Hello "+name+"!")

greet("Tashi")
```
Hello Tashi!

In [ ]:

In [ ]: Question: Can a function **return** data back**?**

Answer:
Yes, the data that **is return from** a function **is return** back to position where it was called

For example:

In [40]:
```python
def incrementByOne(number):
    return float(number)

num = 50

hnum = incrementByOne(num)
print(hnum)
```
50.0

In [ ]:

Question: How many arguments can we pass to a function?

Answer: We can pass any numbers of arguments to a function.

For example:

In [42]:
```python
def AddTwoNumbers(n1, n2, n3):
    return n1+n2+n3

num1=5
num2=45
num3=56
print('Sum is: ', AddTwoNumbers(num1, num2, num3))
```
Sum is: 106

In [ ]:

Notes: -function arguments can be of any data types such as int, float, list, tuple, set, dictionary etc -Similarly function return value can be of any data types

In [ ]:
```python
#function to find the max of 3 numbers

def maxOfThree(n1, n2, n3):
    if n1>n2 and n1>n3:
        return n1
    elif n2>n3 and n2>n1:
        return n2
    else:
        return n3

print('Greatest of 3 numbers is: ', maxOfThree(6,8,2))
```

In [ ]:
```python
#function to find the max of 3 numbers

def maxOfThree(n1, n2, n3):
    numberList = [n1, n2, n3]
    return max(numberList)
```

```python
print('Greatest of 3 numbers is: ', maxOfThree(13,4,9))
```

In [ ]:
```python
#function to find the max of 3 numbers

def maxOfThree(numberList):
    return max(numberList)

print('Greatest of 3 numbers is: ', maxOfThree([103,4,9]))
```

In [ ]:

Assignment Questions

1. Write a Python function that takes two numbers as arguments and returns

their sum. Can you make this function handle non-numeric inputs gracefully?

2. Write a Python function that checks if a given string is a palindrome (reads the

same backward as forward). The function should be case-insensitive.

3. Write a Python function that takes a list of numbers as input and returns a new

list containing only the even numbers. Use a loop and conditional statement within the function.

4. Write a Python function that calculates the factorial of a non-negative integer

passed as an argument. Remember, the factorial of a number is the product of all positive integers less than or equal to that number.

5. Write a Python function that takes a string as input and returns a new string

with all the vowels removed. Can you achieve this without using conditional statements for each vowel?

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