## **Video 3 – Arithmetic Operators**

## **Video 4 – Lists and tuples,**

List is a collection which is ordered and changeable. Allows duplicate members.

Tuple is a collection which is ordered and unchangeable. Allows duplicate members.

Welcome to the third video in this python tutorial series. In this video we will be looking at Lists.

**Lists**

Lists are very similar to arrays if you familiar with other languages.

They can contain any type of variable, and they can contain as many variables as you wish.

Mylist = [‘hello’,5,’python’,’java’,6]

mylist = []

mylist.append(1)

mylist.append(2)

mylist.append(3)

print(mylist[0])

print(mylist[1])

print(mylist[2])

for x in mylist:

print(x)

Accessing an index which does not exist generates an exception (an error)

mylist = [1,2,3]

print(mylist[10])

numbers = []

strings = []

names = ["John", "Eric", 5,5,"Jessica"]

**Changing values in a list**

mylist= [1,2,3,4,5,6]

mylist[1] = 333

mylist

**Removing items from a list 3 ways**

Remove, pop, del

remove removes the first matching value, not a specific index:

a = [0, 2, 3, 2]

a.remove(2)

a

del removes the item at a specific index:

a = [3, 2, 2, 1]

del a[1]

a

pop removes the item at a specific index and returns it.

a = [4, 3, 5]

a.pop(1)

**get length of a list**

mylist= [‘soccer’,’hockey’,’tennis’,’basketball’]

len(mylist)

**Tuples**

A tuple is a collection which is ordered and unchangeable. In Python tuples are written with round brackets.

thistuple = ("apple", "banana", "cherry")

print(thistuple)

Once a tuple is created, you cannot change its values, different from a list. Tuples are unchangeable.

thistuple = ("apple", "banana", "cherry")

thistuple[1] = "blackcurrant"

print(thistuple)

Lists in lists

Mylist = [‘DataScience’,5,7.0,[1,2,3,4,5]]

Mylist[3]

Mylist[3][0]

**Video 5 – Sets and Dictionaries**

Set is a collection which is unordered and unindexed. No duplicate members.

Dictionary is a collection which is unordered, changeable and indexed. No duplicate members.