**Python Assignment 2**

1. Create an empty list and do the following:
   1. Add elements [1,2,’a’,”bat”] to the list
   2. Print length of the list
   3. Add value 45 at index number 2
   4. Print items with index number 1 to index number 3
   5. What is the difference between pop() and remove()

A)

#!/usr/bin/python

var = []

var.insert(0,1)

var.insert(2,’a’)

var.insert(3,’bat’)

var.insert(2,45)

print(var)

print(var[1:4])

e) pop() removes the specific index value

remove()delete the specific value

1. Create a list of numbers from 0 to 10 using range() function and then print the numbers which are even
2. #!/usr/bin/python

numbers = range(1,10)

even = []

for i in numbers:

if i%2 == 0:

even.append(i)

print (even)

1. What is membership in list and how do you check it.
2. Given a list [23, 45, 67, 19, 38]. Write a program for following using the built in functions:
   1. Print max value from list
   2. Print min value from list
   3. Sort the list in ascending order
   4. Sort the list in descending order
3. V = [23,45,67,19,38]

>>>max(v)

>>>min(v)

>>>v.sort()

>>> print(v)

>>> print(sorted(v,reverse=true))

1. Without using the built in functions write python program for the above problem (3)
2. Write a program to create two lists and compare them using built in function. Explain what you have observed.

A)

1. Write a program in python to remove duplicates from a list
   1. Using built in functions
   2. Without using built in function

A) def remove\_duplicates():

t = ['a', 'b', 'c', 'd']

t2 = ['a', 'c', 'd']

for t in t2:

t.append(t.remove())

return t

B) >>> t = [1, 2, 3, 1, 2, 5, 6, 7, 8]

>>> t

[1, 2, 3, 1, 2, 5, 6, 7, 8]

>>> list(set(t))

[1, 2, 3, 5, 6, 7, 8]

>>> s = [1, 2, 3]

>>> list(set(t) - set(s))

[8, 5, 6, 7]

1. Write a program to compare two lists A and B and print items that are in A but not in B
2. a = [1,2,3]

b = [1,2,3]

if (a ==b):

print(a)

1. Write a program for following:
   1. Create empty tuple
   2. Can you add items to a tuple? Explain
   3. Create a tuple (1, 12, 55, 12, 81) and iterate through the tuple and print the values to stdout
   4. Check for membership of items ‘55’ and ‘46’ in tuple created in ‘c’
2. What is the difference between tuple and list? Explain
3. We can add values to the list but we cannot add any values to the tuple

Tuple occupies less memory compared to the list