**CS 299 Lab #4 (20 points) Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Write Python codes to do the following: (note: print out the list after each action.)
2. Create a list with five items***: “Hello”, 7, 7, 9, ‘a’, ‘cat’, False***. Assign this list to the variable MyList.
3. Append π (math pi value) and 7 to the list.
4. Insert the value ‘dog’ at position 3.
5. Find the index of ‘cat’.
6. Count the number of 7’s in the list.
7. Remove the first 7 from the list.
8. Remove ‘dog’ from the list using ***pop*** and ***index***.

1. Although Python provides many list methods, it is good practice to implement some by yourself. Write a function to implement the following functions for processing list or list elements.
2. reverse -- reverse the list
3. index – return -1 if the element not in the list, otherwise return the position of the element.
4. find the median of a list of integers, for example, aList=[24,5,8,2,9,15,10], the median value is 9, bList=[24,5,8,2,9,15,10,54], the median value is (9+10)=9.5

**Submission instructions:**

Create a script file with your Python code as well as test runs (codes and testing for both problems in one file) and submit the script file along Lab 4 link.