DCIT 201: Programming 1

Assignment 8

1. Write a class named Person that has attributes for name, age, and

occupation. These attributes should follow the Python convention for

private attributes. Create getters and setters for each attribute. Name your

getters and setters as ***get\_*** followed by the attribute name or ***set\_*** followed

by the attribute name.

1. Write a Python class ***Stats*** that accepts a Python *list* of values during initialization. Implement methods to calculate the ***mean***, ***median*** and ***mode***and return the result.
2. Write a Python class called ***Shape*** with an abstract method ***calculateArea***(). Create two subclasses, ***Triangle*** and ***Rectangle***, that implement the *calculateArea*() method.
3. Write a Python class called ***Vehicle*** with properties like ***brand***, ***model***, and ***year***. Implement a method to display the vehicle details.
4. Write a Python ***Calculator*** class which will accept two values as arguments, then add them, subtract them, multiply them together, or divide them on request.   
   For example :  
   mycalc = MyCalculator( 12, 6);   
   print( mycalc.add()); // Displays 18   
   print(mycalc.multiply()); // Displays 72