DCIT 201: Programming 1

Assignment 7

1. Create a class called *Book*. Give it the following protected attributes:
   1. title
   2. yearPublished
   3. author

Provide getters and setters for these attributes. Eg. *getTitle*()

Create a constructor for your Book class, which accepts arguments for ***title***, ***yearPublished*** and ***author***. Make the constructor arguments optional, by supplying defaults. Finally, add a method called ***summary***() that returns the ***title***, ***yearPublished*** and ***author*** attributes formatted in a string. Write a test script that creates an instance of Book, and echoes the result of calling ***summary***().

1. Write a PHP class *Rectangle* that has properties for *length* and *width*. Implement methods to calculate the rectangle's *area* and *perimeter*.
2. Write a PHP class called *Shape* with an abstract method *calculateArea*(). Create two subclasses, *Triangle* and *Rectangle*, that implement the *calculateArea*() method.
3. Write a PHP class called *Vehicle* with properties like *brand*, *model*, and *year*. Implement a method to display the vehicle details.
4. Write a PHP 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 = new MyCalculator( 12, 6);   
   echo $mycalc- > add(); // Displays 18   
   echo $mycalc- > multiply(); // Displays 72