**ThoughtWorks Code Assignment - PROBLEM TWO: SALES TAXES:**

Language Used: C#

Development Tool: Visual Studio 2012 (.Net Framework 4.5)

Description: Windows Console Application

* Application Architecture: It’s divided into 3 projects;
  + TaxCalculation.ConsoleApp – To display the calculated output to command line.
  + TaxCalculation.Domain – Holds all classes and logic that does all the tax calculations.
  + TaxCalculation.Tests – Unit test for the application.
* External Libraries:
  + I have used NUnit Framework and RhinoMocks.
* Application build:
  + I have used MSBuild (Microsoft Build Engine).

I tried to follow the SOLID principles of class design:

For example, the following interface ITax which is implemented by Class Tax has a single responsibility which is to calculate tax “decimal CalculateTax(decimal itemPrice);”, Rounding is handled by another class Rounding instead of it being the responsibility of Tax.

namespace TaxCalculation.Domain.Interfaces

{

public interface ITax

{

IRounding Rounding { get; }

decimal Rate { get; }

decimal CalculateTax(decimal itemPrice);

}

}