

# ASSIGNMENT 1

**DUE DATE: 27-MAY-2018**

**PROG 37721 WEB SERVICES USING .NET AND C#**

**SUMMER 2018**

This assignment evaluates the knowledge of C# syntax and semantics, and object-oriented programming concepts with class, objects, inheritance and polymorphism. It also evaluates the understanding of .NET framework architecture in visual studio 2017 IDE environment.

## Tasks

### a) Defining classes

1. Define a base class and a derived class named “Employee” and “SelfEmployee” respectively.  
(10 points)
2. Add the following variables (Employee Id, Employee Name and Profession) to the base class Employee.  
(10 points)
3. Add a constructor to get an employee input and also add a method to print the employee details.  
(10 points)
4. Derived class should inherit the functionality of the base class and also includes the followings:  
(20 points)
  - a. Hourly Rate and Total Hours as a variable.
  - b. A constructor to get input for those variables.
  - c. A method to calculate the Wages, and other method to print the Hourly Rate, Total Hours and Wages.
5. To implement those two classes:  
(20 points)
  - a. Identity the base and the derived class variables and use appropriate data types.
  - b. Constructors should pass the input values as parameters in both classes
  - c. Print methods in both classes should be overridden.
  - d. A method which calculates the wages, should return double type.

### b) Implementing with testing class

(20 points)

1. Define a test class to implement the above defined inherited classes.
2. Input the following set of given employees’ data (Your test class should provide an option to input data for many employees using loops or arrays)

### Sample Input Data

Employee Id	Employee Name	Profession	Hourly Rate	Total Hours (Bi weekly)
E074737	John	Business Analyst	\$35.00	50
E076743	Mary	IT Consultant	\$75.00	20
E080883	Todd	Technician	\$22.00	80

3. Print all the employee's information with calculated wages.

### Submission

(10 points)

- Each C# files should have author name, student number and date in top of the file and also have reasonable comments.
- You must name your folder according to the following rule:  
StudentName\_Student Number\_Assignment\_Number  
Example: **Smith\_John\_999999999\_Assignment\_1**
- The folder must contain Visual Studio Project with all the .cs files and Screen shots.
- All your solutions must be uploaded electronically into Dropbox **on or before 27 May 11.59pm**.
- All completed assignments **MUST be demonstrated** to the professor during the regular scheduled class on **28 May 2018**.
- Late submissions will be penalized with **10% per day for up to 3 calendar days** after which the assignment cannot be submitted anymore.

### Academic integrity and Plagiarism

Each student should be aware of the College's policy regarding Cheating and Plagiarism. Sheridan's Academic Policy will be strictly enforced.

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