**CPS420 - Lab Assignment #7: Using LINQ**

**Assigned: Week 11 Due: Week 12 40 Points**

1. View the following videos on LINQ (You may want to view other parts of this series as well).

* Part 1: What is LINQ: <https://www.youtube.com/watch?v=z3PowDJKOSA>
* Part 2: Writing LINQ Queries: <https://www.youtube.com/watch?v=HMsHkqJZllw>
* Part 3: Extension Methods in C# <https://www.youtube.com/watch?v=VkrKNXscoto>
* Part 4: LINQ Aggregate Functions <https://www.youtube.com/watch?v=ZPgqJvmzigc>
* Part 5 Aggregate function in LINQ: <https://www.youtube.com/watch?v=TaK0oeyq-cQ>

1. Reference for LINQ: <https://msdn.microsoft.com/en-us/library/bb397926(v=vs.110).aspx>
2. Complete the following Tutorial on Linq: <http://www.tutorialspoint.com/asp.net/asp.net_linq.htm>

1. Create a new ASP.NET Web Application.

* Add a web form. Add a class called Books (Books.cs), (Add 🡪 New Item 🡪 Code 🡪 Class) and populate it with the books at the link above.
* Add a label to the form and name it lblbooks
* This is where the lab deviates slightly from the tutorial

2. Show the books in a label

* Create a command button called btnBooks to execute the code to show the Books table. The button handler function will populate the label.
* Add the following code (change books to books1) to the event procedure for the button:
* Move the declaration of books1 to a global area right below the class declaration.

List<Books> books = Books.GetBooks();

var booktitles = from b in books select b.Title;

foreach (var title in booktitles)

lblbooks.Text += String.Format("{0} <br />", title);

1. Show the joined books and salesdata in a label

* Create another class called SalesData (SalesData.cs)
* Create a label called lblJoin
* Create a command button called btnJoin to execute the code that joins the two tables. Add the following code to the event procedure for the button:
* Move the two IEnumerable lines to a global area right below the class declaration.
* Change the name of the lblbooks to lblJoin

IEnumerable<Books> books = Books.GetBooks();

IEnumerable<Salesdetails> sales = Salesdetails.getsalesdetails();

var booktitles = from b in books join s in sales on b.ID equals s.ID

select new { Name = b.Title, Pages = s.pages };

foreach (var title in booktitles)

lblbooks.Text += String.Format("{0} <br />", title);

1. Show all of the books in the list in a GridView

* Add a GridView control to the web form, name it lstBooks
* Bind the books table to the lstBooks GridView Control:

1. Get #4 to work with a ListView control with a different Linq query.