Programming Objectives:

- Develop an ASP.NET web solution for the Emma's Small Engine business case from PROG1180.
- Use ADO objects and programming techniques from PROG1210 to implement the database functionality of the new Emma's Small Engine system.

Project Objectives:

- Delegate project tasks fairly and in a manner that supports the strengths of each team member.
- Communicate progress and delays in assigned tasks for each deliverable in a timely fashion.
- Perform reviews of peers' project work.
- Provide constructive feedback when reviewing peer work.
- Coordinate peer review comments into project work.
- Consult with various team members, before and after a project deliverable, to identify personal areas of growth.

Project Overview:

Develop a new system for **Emma's Small Engine** in an **ASP.NET** web site including web forms for logging into the site, a main landing page, and pages designed to represent the entire system. All pages for your solution must be designed and the navigation between all pages must be functional.

Required Portions TODO:

You will code only a portion of this system.

The pages that pertain to customers and their purchases and repairs must be completed. Add functionality to maintain customer records including adding new customers to the system and for processing their purchases and repairs. Provide a user-friendly search feature for an order number and display relevant information to complete a delivery.

Reporting TODO:

Design an administrative page that provides Emma with the ability to query her customers and sales. Include information that provides Decision Making Support and information that will help Emma appreciate Employees.

Note: You are not required to code the remaining portions of system including Inventory or Ordering. You do not have to code pages that maintain Lookup tables. The portions of the system that are not coded are designed and 'Under Construction'.

Note: you will need to use most tables to process purchases and repairs made by the customers. For example: When a customer makes a purchase you will need to lookup data in the Inventory/Product tables in order to complete a receipt for that order. Add extra data to the tables to demonstrate your solution.

Marking:

Marks: This project assignment is completed in teams established in PROG1180 and is worth 25% of your overall mark. The project consists of a Prototype meeting worth 10% of your final grade. A brief presentation and the final product is submitted at the end of term and worth 15% of your final grade. Review the rubrics below for details on these milestones.

Prototype Meeting: All team members must attend the prototype meeting in order to receive the mark. Be on time, prepared, informed, and well organized. All team members must share equally in the meeting, and incorporate

feedback into the final submission. All members must submit a hard copy Peer Evaluation Form. The team must submit a hard copy of the Team Work Assignment Breakdown form.

Due Date: Friday, December 14, 2018, 4:30pm

Final Due Date: Project files must be submitted no later than **Sunday, December 16, 2018, Midnight**. Submit one copy of your solution thru the Teams File Exchange in Blackboard.

Preliminary Work:

As a team decide on the professional naming conventions and folder organization of your assemblies and files. Use a class Library for data access classes, methods and Datasets. Remember namespaces, classes, and methods are uppercase. Fields and variables are lowercase. All identifiers should follow camel notation. All code files should be documented with team name/members who contributed to each source file. The first name listed is the primary student responsible for that source file. Add names to the top of designer generated files created thru RAD techniques such as Dataset files created by the Add new Data Source wizard and Dataset Designer.

Prototype Meeting [60 marks 10%]

- Design your entire site web based on your story board assignment from PROG1180. Ensure all web forms are user friendly and incorporate a consistent design throughout by applying the design concepts you have learned in previous courses such as CSS, JavaScript, HTML, etc.
- Add a login feature for staff; only a valid login (username and pass word) should provide access to the site beyond the landing page.
- Ensure the user can navigate all site pages

Prototype meeting presented during regular scheduled class of PROG1210 in **Week 13**. A schedule of specific times and location will be posted for each team.

Marking Rubric

Category	**1**	**2**	**3**	**Points**
Web Interface	The resulting web site has some key pages, but is missing many other necessary pages which would be required to support this system.	Most pages are present in the design to support minimum functionality. Only a few edits are necessary to arrive at a complete site.	All require web pages are present in the site to support minimum functionality.	*5 = /15
Web Design	Produced a standard design/template; implementation of design principles needs improvement.	Product incorporates an interesting design; acceptable implementation of design principles.	Produced a unique and creative product; successfully applied design principles.	*5 = /15
Web Navigation	The navigation is missing for many pages; not clear how the site would work.	Most of the navigation is working. Some edits required to demonstrate how some parts would work.	All page navigation is present. It is clear how the site would work.	*5 = /15
Login	The resulting web site has some login operations working, but is missing what is required to support the system	Most of the login operation is present in the site to support minimum login. Only a few operations are necessary to arrive at a complete login.	Login capability is present in the site and working correctly.	*5 = /15

Important Notes:

- Make sure you transfer your design concepts from your storyboards to your forms/web pages. Come up with design standards for your team to follow: colour schemes, naming conventions, form real estate issues etc.
- Each form/webpage that a user can access through your system navigation should be created to illustrate where all of the data input and/or output controls will appear on the form. This layout will include the sequence and groupings of controls on a form/page. In addition, your team's designs will show the type of controls that will be used to gather or output data. For example, will a user enter a particular item into a text box; select it from a list box, combo box, or option group etc.? Lastly, the forms should include your group's "creative take" on the colours, fonts, and graphics that will be used to enhance the look, feel, and more importantly, the functionality of the System.
- In your design, include a consistent method for indicating the required fields on each form/page (i.e. back colour, red asterisk, bolding etc.).
- The overall system is consistent, easy to navigate (i.e. choice of hotkeys, logical flow, all options for a function is one click away) Initial bullet-proofing guides the user through transactions in a logical sequence, controls add/edit/delete functions and navigation. There is an effective use of controls for gathering and/or outputting data.
- The use of colour, fonts, graphics, and the spacing and grouping of controls enhance the overall functionality of the system.
- Optional Bonus: The web is responsive and incorporates accessibility standards.

Final Submission [70 Marks 15%]

- Develop required crud operations using ADO objects and programming techniques from PROG1210.
- Search customers, repairs, and orders providing the user with a minimum of four different ways to filter and locate these records.
- Once a customer record is found and selected the user should be able to see a list of existing orders and repairs for that customer.
- Provide a way to maintain customer records and to process new orders and repairs.
- Build a functional administrative page for Emma that provides useful information about employees, customers, orders, and repairs.
- Correct all code to ensure the site is functioning as required.
- Add code to ensure the web site is fully functional, user-friendly, and robust. Include data validation, exception handling, status and/or error massages, etc.

Submit one final copy of your team's solution to this case study in your team file share:

Presentation presented during regular scheduled class of PROG1210 in **Week 15**. The team must select at least one member to showcase their solution in a brief presentation with the class present. The presentation is required in order for the product to be marked. Expectations and a schedule of specific times and location will be posted.

Due Date: Friday, December 14, 2018, 4:30pm

Final Due Date: Sunday, December 16, 2018, Midnight

Marking Rubric

Category	1	2	3	Points
Implementation of methods and expected code	The resulting assemblies have some code but are missing most which would be required to support the system.	Most required code is present in the design to support the system. Only a few edits are necessary to arrive at a complete product.	All required code is present in the design to support the system.	*10 = /30
Site Function	The resulting web site has most operations working, but is missing many which would be required to support the system	Most operations are present in the site to support minimum functionality. Only a few operations are necessary to arrive at a complete site.	All functions required are present in the site to support minimum functionality.	*10 = /30
Search Operations (locate records)	The resulting web site has some search operations working, but is missing many which would be required to support the system	Most search operations are present in the site to support minimum functionality. Only a few operations are necessary to arrive at a complete site.	All search operations are present in the site to support minimum functionality.	*5 = /15
CRUD Operations	The resulting web site has some crud operations working, but is missing many which would be required to support the system	Most operations are present in the site to support minimum functionality. Only a few operations are necessary to arrive at a complete site.	All crud operations are present in the site to support minimum functionality.	*10 = /30
Reporting	The resulting assemblies have some code but are missing most which would be required to support summary.	Most required code is present in the design to support the summary. Only a few edits are necessary to complete.	All required code is present in the design to support the summary.	*5 = /15
Professional Standards	Naming conventions and organization are inconsistent and/or rarely follow program naming conventions or system naming context.	Naming conventions and organization follow program standards. More detail is required to meet standards and system naming context.	Naming conventions and organization follow program standards and are descriptive/reader friendly.	*2 = /6
Documentation	Documentation is missing and lacks organization	All documentation is submitted, organized and reader friendly.	N/A	*2 = /4