SE 245 – C# (Console) -- Week 10 Exam Project #2

**Student Exam Project #2 must include**:

* Output Prompts
* Gathering of input including multiple types of data types (string and numeric)
* Converting from strings to numeric form.
* Calculations that include more than one simple step
* Multiple Branches (3+)
* Lists or Arrays
* Error Trapping / Debugging
* Appropriate looping
* ForEach Loop(s)
* Use the following types of functions: Void / Return / By Ref
* Output of results
* Mechanism to allow user to comfortably see results before the program ends.
* Tested & Debugged to class level.
* **NEW – Develop a Class and a DB Table to represent your choice of data from below.**
* **NEW – Create all necessary validation and data-conversions necessary**
* **NEW – Create all DB Features within the class: Insert / Update / Del / Search**
* **NEW – Modify the main program and button events to activate the appropriate action.**
* **NEW – Search results should start within a DataGridView with ability to view individual records in the form.**

    Sample Ideas to implement (Void / Return / By Ref)

* **Collecting student info**:  
  First and Last Names (Strings)  
  GPA (Double) -> 0.0 to 4.0  
  Credits Earned (Int) -> 0+  
  Age (Int) 0+ OR BONUS: DOB - Why is DOB better?  
  \*\* List out the data for multiple records  
  \*\* Calculate some averages and totals
* **Collecting car info**:  
  Make and Model (Strings)  
  Year (four-digit Int) OR BONUS: As a Date (9/1/????)  
  Liters (Double) -> 1.0 – 5.0  
  Cylinders (Int) -> 2-8  
  \*\* List out the data for multiple records  
  \*\* Calculate some averages and totals
* **Collecting Game Players**Player/Avatar Name (String)  
  Lives (Int) -> 0 and greater  
  Hours Played (Double) Example 1.5 hours  
  Health (Int) -> 0-100  
  Strength (Int) -> 2-15  
  Armor (Int) –> 0-100  
  BONUS: Playing\_Since (Date)  
  \*\* List out the data for multiple records  
  \*\* Calculate some averages and totals