**CISP 41 -- Project 3 (CISP 41’s Auto Repair Shop V1)**

**Due Thursday, 11/01/2012**

You were hired to create custom software for an auto shop.  You will create the first version with minimum number of features.  The software will allow one to enter job information and produce a summary of the amounts due for CISP 41’s Auto Repair Shop, where CISP 41 will be a name that you can select if you like to do so.  Make sure to plan the user interface, select appropriate properties, and planning the code (pseudocode) first.  It is not required, but it is highly recommended to set up and use methods in the program.  Your software shall include a main form, a summary form and an about form.

The *main form* has the following menus:

File                      Tools                                      Help

Exit                      Calculate                                 About

                             New Customer

                              Summary

And the following items:

        It has a label that displays an automatically generated job number and the first job starts with 1 (second job is 2 and so on).  It must have a text box for the user to enter the hours of labor.  User would be able to select one part from a list and the amount charged for that part should be determined by a table look up (you can make up some parts and prices and store them in an array).  Include labels/read-only textboxes/rich textbox for Sub-Total (part and labor), Sales Tax, and Total.

        Include buttons for **Calculate** and **New Customer**.

        The **Calculate** button/menu validates the data.  If everything is acceptable, it disables Calculate button/menu, updates job number for next job, finds the charges, and displays them in labels.  The tax rate and the hourly labor charge should be set up as named constants so that they can be easily modified if either changes. Current charges are $50 per hour for labor and 10 percent (0.10) for the sales tax rate. Sales tax is charged only on part, not on labor.  Maintain summary information for the total dollar amount sales tax and total for all customers.

        The **New Customer** button/menu clears everything, displays new job number, enables Calculate button/menu, and resets the focus in the first text box (hours of labor).

*Summary Form:*

        The **Summary** form should display the total dollar amount for parts, labor, sales tax, and total for all customers.  Include an **OK** button that returns the user to the main form.

**Extra credit:** You can earn up to 4 addition points if you can implement **one of the following two options** (feel free to do both as a challenge but only a maximum of 4 points will be given):

1.      Provide a report for all transactions and totals.  Add “Print All“ submenu under File menu, and it should send its output to the Print Preview window.  Include individual transactions, number of jobs, total dollar amount for parts, labor, sales tax, and total for all customers in the report.

2.      Support promotion codes as specified below to be entered in a textbox (only one promotion code per customer).  In addition, clearly indicate when discount is given if applicable. If a coupon is used and it cannot be applied, indicate so.

        5% off a part when promotion code “5OFF” is entered and the cost of the part (before tax) is at least $50.00

        10% off a part when promotion code “10OFF” is entered and the cost of the part (before tax) is at least $100.00

        20% off a part when promotion code “20OFF” is entered and the cost of the part (before tax) is at least $200.00

**Team project option:**  It is not required, but you can work with another student for this project and your team must sign up by Thursday, 10/18/12.  Make sure to split the responsibilities equally and work together.  Your team only needs to submit one copy of the project, but each one must include a paragraph summarizing your contribution to the project (put that under status of your program).

Please provide documentation as specified in project documentation file and applying good coding style because it is part of the grade.  Do not forget to use the provided template.  You must come up with a sufficient number of test cases since the test cases are also part of the grade.  Please submit the following items **in a folder**(or upload via Moodlerooms one .zip file that contains one single pdf file for all the printouts and **all project files**):

1. Project evaluation sheet.
2. Project specification.
3. Status of your program; also indicate if extra credit features are included.
4. A planning sketch for the form, property settings, and pseudocode.
5. List of test cases and captured screens.
6. Source code.
7. A copy of your project on a USB drive or CD – **all project files** for this program.

If I cannot run your program, points will be deducted so make sure to submit all project files.  Your program will be graded as follow:

* Correctness: 26 points
* Test Cases:  4 points
* Documentation/Coding Style:  10 points

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Use chapter 8 hands on example

Copy stuff from project 2