Programming Logic - Beginning
152-101

Rental Gas Cost Estimate Program Evaluation Form

☑ Update Recommended

Cost Estimate Project
☐ (½ point) Appropriate project icon (can be same as window icon)
☐ (½ point) Window file names match Window object names (wdwXxxx) and MainWindow.xaml name has not been changed.

Welcome Screen
☐ (½ point) Window centered on screen
☐ (½ point) Window title is appropriate
☐ (½ point) Window includes application name
☐ (½ point) Window appearance is professional
☐ (½ point) Timer included that closes Window after 5 seconds
☐ (½ point) Button included to start application immediately
☐ (½ point) Button included to exit application immediately (Cancel button)
☐ (½ point) Method documentation (grammatically correct) included for all methods

Window Layout
☐ (½ point) Appropriate Window icon
☐ (½ point) Window centered on screen
☐ (½ point) Window title is appropriate
☐ (½ point) Group boxes used to group similar items
☐ (½ point) Group boxes are appropriately labeled
☐ (½ point) Date picker used to allow user to enter estimate date
☐ (½ point) Date picker format is Long
☐ (½ point) Date picker displays current date in the MainWindow.xaml view
☐ (½ point) Textboxes used to allow user to enter customer name and trip description
☐ (½ point) Description textbox is multi-line
☐ (½ point) Textboxes used to allow user to enter city/highway miles and MPG
☐ (½ point) Textbox used to allow user to enter estimated cost per gallon
☐ (½ point) Label used to display total gallons needed
☐ (½ point) Label used to display total trip cost
☐ (½ point) Label used to display estimate expiration date
☐ (½ point) Window includes appropriate piece of clipart
☐ (½ point) All Window objects appropriately labeled
☐ (½ point) Window objects have professional layout
☐ (½ point) Tab order is appropriate
☐ (½ point) All Window objects referenced in code are appropriately named

- ☐ (½ point) Button access keys are appropriate (isDefault, and isCancel properties set on the correct buttons)
- ☐ (½ point) Calculate button is window Accept button
- ☐ (½ point) Clear button is window Cancel button

Window Constants
- ☐ (½ point) Constant created for estimate expiration days (15)
- ☐ (½ point) Constant has appropriate name (UPPERCASE), type and description
- ☐ (½ point) Constant defined outside event handlers, inside window class

Calculate Click Event
- ☐ (½ point) Variables created for all inputs
- ☐ (½ point) Variables created for all outputs
- ☐ (½ point) Variables have appropriate names (camelCase), types and descriptions (comments)
- ☐ (½ point) Miles variables are integers
- ☐ (½ point) MPG variables are doubles
- ☐ (½ point) Cost variables are decimals
- ☐ (½ point) Try-Catch used to capture miles, MPG, and gas cost errors and clears the entry values so the user can try again.
- ☐ (½ point) Error message appropriate

- ☐ (½ point) All input values properly converted to variables
- ☐ (½ point) Parse commands use appropriate variable types
- ☐ (½ point) Miles and gas cost are unformatted
- ☐ (½ point) Gallons calculated correctly
- ☐ (½ point) Trip cost calculated correctly
- ☐ (½ point) Estimate expiration date calculated correctly (uses constant)
- ☐ **(+1 point) Gallons rounded up correctly**

- ☐ (½ point) Gallons formatted appropriately (if not rounded)
- ☐ (½ point) Trip cost formatted Currency
- ☐ (½ point) Estimate expiration date formatted Short (or Custom)

- ☐ (½ point) Miles reformatted to include commas
- ☐ (½ point) Gas cost input formatted Currency

- ☐ (½ point) Focus set to Clear button after all processing complete

Clear Click Event
- ☐ (½ point) Estimate date set to current date
- ☐ (½ point) All textboxes cleared
- ☐ (½ point) All output labels cleared
- ☐ (½ point) Focus set to first input field after all processing complete

Exit Click Event
- ☐ (½ point) Program exits properly

Window Initialization
☐ (½ point)   DatePicker initialized to current date in xaml using DisplayDate property
☐ (½ point)   Create Welcome screen object and show it on start up
☐ (½ point)   Hide MainWindow at start up so that Welcome Screen is the only window showing.
☐ (½ point)   If user selects exit button on Welcome screen, application immediately ends

Indentation
☐ (½ point)   Source code indented properly

Challenge Points
☐ **(+1 point)** If all requirements met (limited to +1 for all unit 4 programs)
    ☐ (½ point)   Version number displayed on the window
    ☐ (½ point)   Version number displayed in an appropriate location
    ☐ (½ point)   Version number defined using a constant
    ☐ (½ point)   Version constant added to window

☐ **(+1 point)** If all **requirements** met (limited to +1 for all unit 4 programs)
    ☐ (½ point)   Estimate Expiration Date displayed using a custom date format
    ☐ (½ point)   Custom date format is appropriate

☐ **(+1 point)** If all **requirements** met (limited to +1 for all unit 4 programs)
    ☐ (½ point)   Exit button anchored to bottom right
    ☐ (½ point)   Calc and Clear buttons anchored to bottom left
    ☐ (½ point)   Version number (if provided) anchored appropriately

Window Level Documentation
☐ (½ point)   Methods alphabetized
☐ (½ point)   Spacing used to make code readable
☐ (½ point)   Appropriate in-line comments included

☐ (½ point)   Each method includes a purpose description.
☐ (½ point)   Purpose descriptions use complete sentences, grammatically correct, without spelling errors.
☐ (½ point)   Purpose descriptions are accurate

Program Documentation
- ☐ (½ point) Documentation module created
- ☐ (½ point) Documentation appearance is professional
- ☐ (½ point) Program name included
- ☐ (½ point) Student's name included
- ☐ (½ point) Program date included
- ☐ (½ point) Program's purpose uses complete sentences, is grammatically correct, without spelling errors.
- ☐ (½ point) Program's purpose is accurate and complete

- ☐ (½ point) Windows listed alphabetically
- ☐ (½ point) Window purpose descriptions use complete sentences, grammatically correct, without spelling errors.
- ☐ (½ point) Window purpose descriptions are accurate and complete

- ☐ (½ point) Change log included
- ☐ (½ point) (Updates only) Updates documented in change log

Program Design
- ☐ (½ point) btnCalc sequence of commands same in design and code

- ☐ (½ point) btnClear sequence of commands same in design and code

- ☐ (½ point) Variable and object names in code same as in design

- ☐ (½ point)