

Assignment 1

Due on Tuesday, September 26 by 5:00pm via Blackboard

- ❖ In this assignment you are to create a Visual Basic application for the VB gas station. The application should be able to calculate the total price for a visit to the station. Visitors to the VB gas station can purchase either unleaded fuel, premium fuel, or both unleaded and premium fuel.

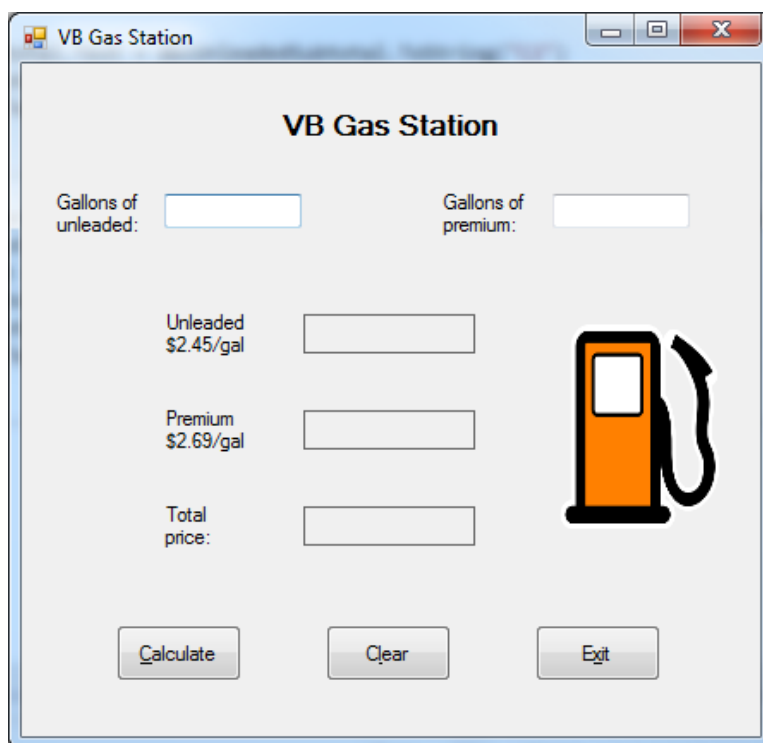
Your program should:

- provide input fields where the amount of each type of fuel to be purchased can be entered
- provide output fields where the subtotal charges for both unleaded and premium fuel purchases can be displayed
- provide an output field where the total price for the visit to the gas station can be displayed
- include appropriate labels for all input and output fields in the interface
- provide a “Calculate” button that when pressed will read input values for the gallons of unleaded fuel to be purchased and the gallons of premium fuel to be purchased and then calculate and display the unleaded subtotal charge, the premium subtotal charge, and the total price for the visit to the gas station
- format each of the output fields using the ToString() method so that a dollar sign is printed in front of the number and two digits of precision are displayed.
- provide a “Clear” button that when pressed will reset the form so the two input fields and three output fields are all blank (just like when the program starts running)
- provide an “Exit” button that when pressed will close the application
- define access keys for the buttons in the user interface
- establish the tab order for interface controls so that the input area for the “Gallons of unleaded” is selected first, followed by the “Gallons of premium” input area, followed by the “Calculate” button, the “Clear” button, and then the “Exit” button
- include a PictureBox to display an image that is appropriate for a gas station application

Two sample user interface screens are shown below, the first illustrates the application when it first starts running, the second shows the result of pressing the “Calculate” button when the corresponding values have been input. The user interface of your application does not have to be exactly the same as the examples below, but should be functionally equivalent.

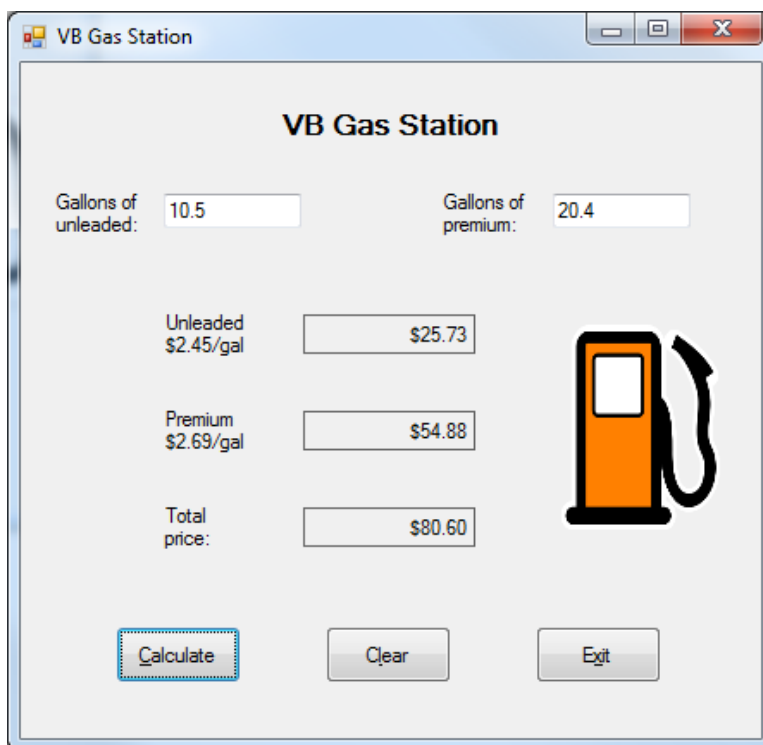
Make sure to add a heading comment in your source code to specify your name, K number, and a brief description of the code (note: heading comments are placed before the class name in the source code). Also make sure to include additional comments within the source code (at least one comment per procedure to describe its function).

When finished, make a zip file of the folder created for the project and submit the file to the corresponding assignment on the BlackBoard system.



The image shows a Windows application window titled "VB Gas Station". The window has a light gray background and a blue title bar. Inside the window, the title "VB Gas Station" is centered at the top. Below the title, there are two input fields for "Gallons of unleaded:" and "Gallons of premium:". Below these, there are three rows of labels and input fields: "Unleaded \$2.45/gal", "Premium \$2.69/gal", and "Total price:". To the right of these input fields is a graphic of a gas pump. At the bottom of the window, there are three buttons: "Calculate", "Clear", and "Exit".

Field	Value
Gallons of unleaded:	
Gallons of premium:	
Unleaded \$2.45/gal	
Premium \$2.69/gal	
Total price:	



The image shows the same "VB Gas Station" application window, but now with data entered into the input fields. The "Gallons of unleaded:" field contains the value "10.5" and the "Gallons of premium:" field contains the value "20.4". The "Unleaded \$2.45/gal" field now shows the calculated value "\$25.73", the "Premium \$2.69/gal" field shows "\$54.88", and the "Total price:" field shows "\$80.60". The "Calculate" button is highlighted with a blue border, indicating it was the last active element. The "Clear" and "Exit" buttons remain unchanged.

Field	Value
Gallons of unleaded:	10.5
Gallons of premium:	20.4
Unleaded \$2.45/gal	\$25.73
Premium \$2.69/gal	\$54.88
Total price:	\$80.60