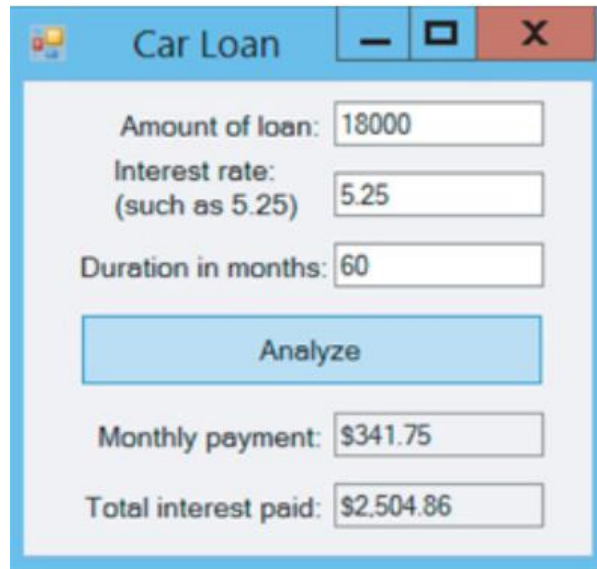# Car Loan

Write a program to analyze a car loan, as shown above. The user should enter the amount of the loan, the annual rate of interest as a percentage, and the duration of the loan in months. When the user clicks the Analyze button, make sure inputs are acceptable. If not, let the user know with a message. If acceptable, display the monthly payment and the total amount of interest paid. The formula for the monthly payment is

$$\text{monthly payment} = \frac{p \cdot r}{1 - (1 + r)^{-n}}$$

where p is the amount of the loan, r is the monthly interest rate (annual rate divided by 12) given as a number between 0 (for 0 %) and 1 (for 100 %), and n is the duration of the loan in months. The formula for the total interest paid is

$$\text{total interest} = n \cdot \left[\text{monthly payment}\right] - p$$

- Set Option Strict On
- Use one local variable for each input and output. Do not use class/form level variables.
- To validate the loan amount, display an appropriate message when the loan amount is missing. Display a different message if the interest rate is not between 0 and 100. The Analyze button should not display more than one message with each use. When inputs are invalid, no more than one message box should appear and nothing else on the form should change.
- Clear the output controls immediately when the inputs change.
- Format output as shown in the diagram above.