Pseudo Code for CostOfDriving:

1. Import the following:
   * Decimal format library for formatting from java.text.DecimalFormat
   * Scanner library for input from java.util.Scanner
2. Create the following non-constant variables
   * drivingDistance to hold the driving distance
   * milesPerGallon to hold the miles per gallon
   * pricePerGallon to hold the price per gallon
   * calculateGallons to hold drivingCost / milesPerGallon
   * costOfDriving to hold the cost of driving or fuel cost
   * moneyFormat to hold two-digit decimal format
   * input for the Scanner to get the user’s input
3. Prompt the user for the driving distance
4. Record the user’s input in variable drivingDistance
5. Prompt the user for the miles per gallon
6. Record the user’s input in variable milesPerGallon
7. Prompt the user for the price per gallon of gas
8. Record the user’s input in variable pricePerGallon
9. Close the scanner to prevent memory leak
10. Calculate how many gallons are needed to complete the trip by dividing the driving distance by the miles per gallon, store in calculateGallons
11. Calculate the cost of fuel by multiplying how many gallons are needed with the price per gallon, store in costOfDriving
12. Display the cost of driving to the user, formatted two decimal places for cents.
13. Display programmer’s name: Michael Amaya

Test plan for CostOfDriving:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cases | Input | Expected Output | Actual Output | Did it pass? |
| Case 1 | Please enter the driving distance (in miles): 900.5  Please enter the miles your car runs per gallon of gas: 25.5  Please enter the price of gas per gallon: 3.55 | The cost of driving is $125.36  Programmer: Michael Amaya | The cost of driving is $125.36  Programmer: Michael Amaya | Y |
| Case 2 | Please enter the driving distance (in miles): 500.2  Please enter the miles your car runs per gallon of gas: 19.5  Please enter the price of gas per gallon: 2.69 | The cost of driving is $69.00  Programmer: Michael Amaya | The cost of driving is $69  Programmer: Michael Amaya | N |
| Case 3 | Please enter the driving distance (in miles): 1200  Please enter the miles your car runs per gallon of gas: 42  Please enter the price of gas per gallon: 2.79 | The cost of driving is $79.71  Programmer: Michael Amaya | The cost of driving is $79.71  Programmer: Michael Amaya | Y |
| Case 4 | Please enter the driving distance (in miles): 1000.4  Please enter the miles your car runs per gallon of gas: 15.2  Please enter the price of gas per gallon: 3.47 | The cost of driving is $228.38  Programmer: Michael Amaya | The cost of driving is $228.38  Programmer: Michael Amaya | Y |

**Case 1:**

**![A screenshot of a social media post

Description automatically generated]()**

**Case 2:**

**![A screenshot of a social media post

Description automatically generated]()**

**Case 3:**

**![A screenshot of a social media post

Description automatically generated]()**

**Case 4:**

**![A screenshot of a social media post

Description automatically generated]()**

CostOfDriving Class Diagram

A screenshot of a cell phone

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CostOfDriving Flow Chart:

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Lessons learned:

For this program, I learned how to use test plans and Pseudo code to help design the program I am trying to make. I also learned how to create UML diagrams from Eclipse. I learned how to use different types or datatypes for variables. I also learned how to get input from the user, calculate based on that input, and display results to the user, all in Java.

Again, not sure if this is for your use or my use. Please let me know if this is incorrect so I can correct it

|  |  |  |  |
| --- | --- | --- | --- |
| **#** |  | **Y/N** | **Comments** |
|  | **Source java files** | **Y** |  |
|  | **Compressed files:** | **Y** |  |
|  | FirstInitialLastName\_Project1\_Moss.zip | **Y** |  |
|  | FirstInitialLastName\_Project1\_doc.zip | **Y** |  |
|  | **Program compiles** | **Y** |  |
|  | **Program runs** | **Y** |  |
|  | **Checklist is completed and included in the Documentation** | **Y** |  |
|  | **Documentation file:** | **Y** |  |
|  | **Comprehensive Test Plan** | **Y** |  |
|  | **Screenshots based on Test Plan** | **Y** |  |
|  | **UML Diagram** | **Y** |  |
|  | **Algorithms/Pseudocode** | **Y** |  |
|  | **FlowChart** | **Y** |  |
|  | **Lessons Learned** | **Y** |  |