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Project: Fuel Costs calculator

#### Description

Based on user input, calculates average gas mileage and average gas prices.

#### Scope

- Limited to user input. Leverages while loop and sentinel for multiple inputs.
- Limited to three gas prices

#### Header files

`iostream`  
Used for cin/cout  
`math`  
Used for basic arithmetic  
`iomanip`  
Used to format console output  
`limits`  
Needed for numeric\_limits  
`string`  
Used for string variables

#### Functions

`double getDoubleInput(string questionToAsk);`  
Gets and validates input for all double variables  
`char getSentinel();`  
Gets and validates sentinel for breaking loop. y/n in this case

#### Input variables

`double odometerStart`  
Initial reading of odometer at fill up  
`double odometerEnd`  
Reading of odometer at empty tank  
`double pricePerGallon`  
Price per gallon paid at fillup  
`double numGallons`  
Number of gallons purchased

#### Output Variables

`double avgMPG`  
Average miles per gallon  
`double avgPricePerGallon`  
Average Price per gallon paid  
`double costPerMile`  
Average cost per mile

string carClassification  
Efficiency of care based on average MPG

#### Misc Variables

int numFillUps

Number of fillups. Simple counter

double totalGallons

Sum of all gas purchased

double totalMiles

sum of miles traveled for all fillups

#### Program Workflow





