

Gas Pump

Last Updated: February 15, 2016

Question

Write an application that calculates the cost of gas at a local gas station.

The gas types that can be found at this local station are named as, *"RegularGas"*, *"MidgradeGas"*, *"PremiumGas"*, and *"DieselFuel"*.

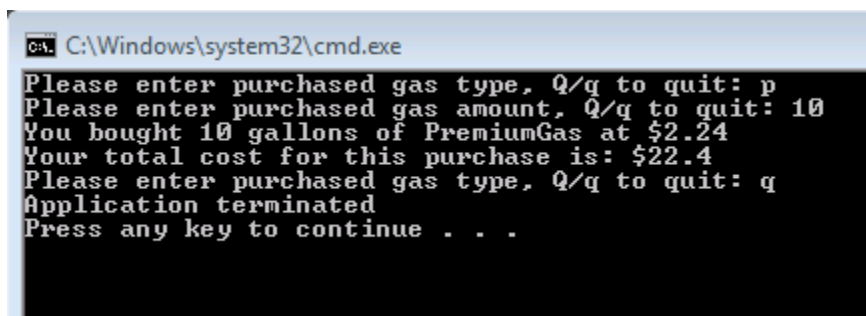
This gas station applies \$1.94 per gallon for RegularGas, \$2 per gallon for MidgradeGas, \$2.24 for PremiumGas, and \$2.17 for DieselFuel.

The user will enter the desired gas type first, and then will type in the amount to purchase. Given that both inputs are valid, the user will be presented with a brief summary of the purchase input, followed by the total cost calculation.

Note – The program must use a sentinel value and in this case this is **Q** or **q** character. An application uses a sentinel value to determine when to stop accepting input from the user. It is also called a *signal value*, *flag value*, or *dummy value*.

Sample Output

- User is first prompted with the gas type, and then the purchase amount. If both entered gas type and amount are valid, then the user is prompted with
 - A summary of gas type and amount that is purchased
 - Summary of total cost



```
C:\Windows\system32\cmd.exe
Please enter purchased gas type, Q/q to quit: p
Please enter purchased gas amount, Q/q to quit: 10
You bought 10 gallons of PremiumGas at $2.24
Your total cost for this purchase is: $22.4
Please enter purchased gas type, Q/q to quit: q
Application terminated
Press any key to continue . . .
```

Note – Your print statements should exactly match. Please pay attention to the sample output window above for the text and format that is expected from your output.

Developer Notes

- After you get a copy of the solution files via github, please do not change anything that is provided to you! This includes all method signatures, unit tests, and anything that is provided to you in code

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- Please pay attention to the deadlines. Your commit timestamp should not be later than the hard deadline
- Before committing your changes please make sure
 - Your solution files build and run fine
 - All the provided tests pass (you will not receive any credit for failing tests) – Please do **NOT** modify the unit tests by any means
 - If any other document files other than the code files are required, then please make sure you included these as well
- Once you committed your changes, please test it one last time to make sure everything is ok
- Please send the github link to the location of your solution to me and to your TA

Deadlines

- For this assignment deadline is **2/22/2016 @ 4pm** and hard-deadline is **2/27/2016 @ 4pm**. Unfortunately assignments sent over after this deadline will not receive any credit