

Midterm Project, Spring 2019

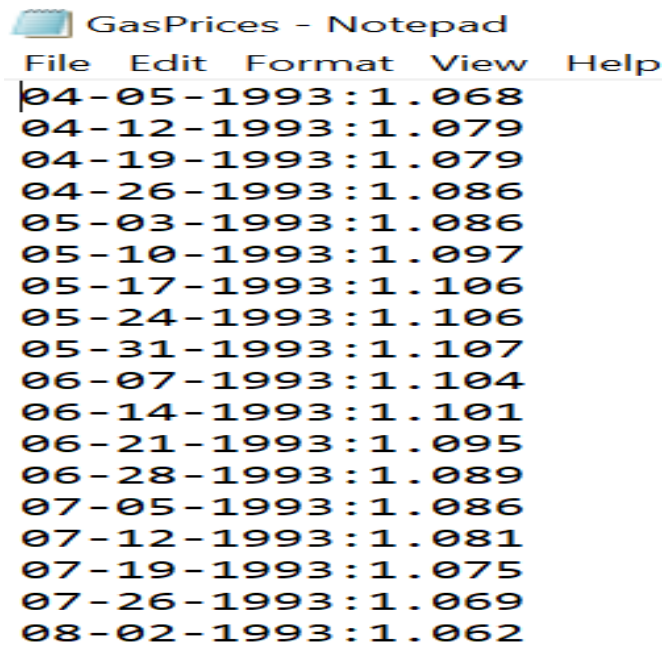
Total Points: 150

Due: 03/13/2019

Gas Prices Calculation

Download the attached GasPrices.txt file. The file contains the weekly average price of gas beginning on April 5th, 1993 and ending on August 26th, 2013. Each line in the file contains the average price for a gallon on a specific date. Each line in the file contains the average price for a gallon of gas on a specific date. Each line is formatted in the following way, for month, day, year and price.

MM-DD-YYYY:Price



GasPrices - Notepad

File	Edit	Format	View	Help
04-05-1993	:	1.068		
04-12-1993	:	1.079		
04-19-1993	:	1.079		
04-26-1993	:	1.086		
05-03-1993	:	1.086		
05-10-1993	:	1.097		
05-17-1993	:	1.106		
05-24-1993	:	1.106		
05-31-1993	:	1.107		
06-07-1993	:	1.104		
06-14-1993	:	1.101		
06-21-1993	:	1.095		
06-28-1993	:	1.089		
07-05-1993	:	1.086		
07-12-1993	:	1.081		
07-19-1993	:	1.075		
07-26-1993	:	1.069		
08-02-1993	:	1.062		

Fig: A sample file

For this assignment, you need to write one or more programs that read the contents of the file and perform the following calculations.

Average Price Per Year: Calculate the average price of gas per year in the file except incomplete years 1993 and 2013. Plot a bar graph for the average price (10 points bonus for plot). (50 points)

Average Price per month: Calculate the average price for each month in the file. (60 points)

Highest and Lowest Prices per year: For each year in the file, determine the date and amount for the lowest price and the highest price. You also find the difference in highest and lowest price each year. (40 points)

You can write one program to perform all these calculations or you can write different program, one for each calculation.