

Module 2 Challenge: VBA of Wall Street
Deliverable Part 2: Written Analysis of the Results
University of Toronto
Data Analytics Bootcamp

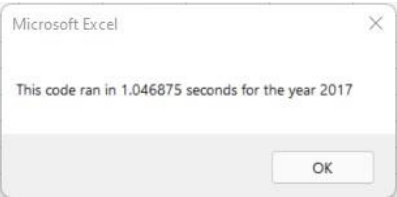
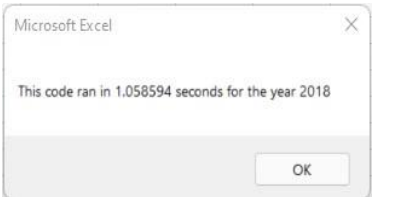

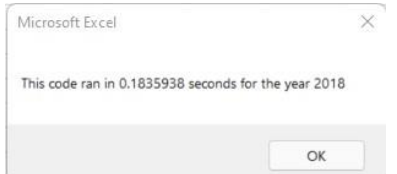
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Overview of the Project

This project consisted of refactoring a Microsoft Excel VBA code to collect information and trends about stocks from green energy companies in the years 2017 and 2018. The data from this analysis would be used to determine if the companies are worth investing in by Steve's parents. This process was originally completed, this attempt was to increase the efficiency of the original code. This report will help gain a more valuable understanding of the stocks of green energy companies. This analysis will help Steve decide and gain knowledge from the raw data to plan future investments.

Results

An instruction code script was very useful in understanding and working on this project. The project included finding a Total Daily Volume for all the companies, finding DQ's Yearly Return, and comparing the data for the two given years. Refactoring the code helped by making the process faster and getting all the calculations and the formatting of the data results in one code. The following are some screenshots documenting the resulting analysis.

	2017	2018
Original Code		
Refactored Code		

As evident from the run-time screenshots, the refactored code is efficient and orderly as compared to the original code written during the module practice. Similarly,

the output in the data tables was also organized and formatted correctly when prompted from the refactored code.

The screenshot shows the Microsoft Excel interface with a table titled "All Stocks (2017)". The table has three columns: "Ticker", "Total Daily Volume", and "Return". The data is as follows:

Ticker	Total Daily Volume	Return
AY	136,070,900	8.9%
CSIQ	310,592,800	33.1%
DQ	35,796,200	199.4%
ENPH	221,772,100	129.5%
FSLR	684,181,400	101.3%
HASI	80,949,300	25.8%
JKS	191,632,200	53.9%
RUN	267,681,300	5.5%
SEDG	206,885,200	184.5%
SPWR	762,187,000	23.1%
TERP	139,402,800	2.2%
VSLR	109,487,900	50.0%

A message box from Microsoft Excel is displayed in the center, stating: "This code ran in 0.1875 seconds for the year 2017". The status bar at the bottom indicates "Ready" and "Accessibility: Good to go".

The screenshot shows the Microsoft Excel interface with a table titled "All Stocks (2018)". The table has three columns: "Ticker", "Total Daily Volume", and "Return". The data is as follows:

Ticker	Total Daily Volume	Return
AY	83,079,900	7.8%
CSIQ	200,879,900	16.3%
DQ	107,873,900	52.6%
ENPH	607,473,500	81.9%
FSLR	478,113,900	24.9%
HASI	104,340,800	20.7%
JKS	158,309,000	60.5%
RUN	502,757,100	84.0%
SEDG	237,212,300	7.8%
SPWR	538,024,300	44.8%
TERP	151,434,700	5.4%
VSLR	136,539,100	3.5%

A message box from Microsoft Excel is displayed in the center, stating: "This code ran in 0.1835933 seconds for the year 2018". The status bar at the bottom indicates "Ready" and "Accessibility: Good to go".

Summary

Advantages and Disadvantages of the Refactoring Code:

The refactored code's both input and output were clean and organized. Its' advantages included debugging, faster run-time, and design and software improvement.

It is beneficial for new users of the data too because it is easier to read and concise. But some of its disadvantages are that refactoring is not always available, because there can be large applications, or having a small sample data that can risk the analysis and findings.

Refactoring Stock Analysis:

In this case, refactoring was very useful because it made the process faster and more convenient. The original analysis took one second to run, whereas the refactored code took one-fifth of the time. Also, the original code did not have the formatting included in it, so whenever the output was generated, it did not color-code the results, which made it hard to look at the overall results.