

So here's a more detailed description of what I had in mind.

I'm thinking we make a superclass that can provide the following for every object. I'll use the S&P 500 as an example:

First, basic information:

- String tickerAndName: GSPC S&P500
- Double currentPrice: 4204.11
- Boolean positiveMonth: True
- Double monthChange: 0.55%
- Double dividend: 1.38

Second, fun simulations:

- Void simDividends: (Would print out something like), "Based on dividend yields of 1.38% and a price of \$4204.11 as of April 30th, 2021 your holding GSPC would earn \$58.01 in compounded dividends after one year.

(or for a longer time period)

"Based on dividend yields of 1.38% and a price of \$4204.11 as of April 30th, 2021 your holding GSPC would earn \$617.55 in compounded dividends after 10 years.

- Void COVIDcrash: (Would print out something like), "Based on record market losses resulting from COVID19 between February 21st and March 23rd 2020, GSPC would have lost 32.96% or \$1385.67 in value.
- Void 2008crash: (Would print out something like), "Based on record market losses resulting from the burst of the U.S. housing bubble and plummeting value of MBS between September 26th and October 27th 2008, GSPC would have lost 30.03% or \$1262.511 in value.
- Void tenYears: (Would print out something like), "Based on annual average return over the past ten years of 13.6%, between 2021 and 2031, GSPC will have gained 136% or \$5717.58 in value for a total value of \$9921.69
- Void twentyYears: (Would print out something like), "Based on annual average return over the past ten years of 13.6%, between 2021 and 2041, GSPC will have gained 272% or \$11435.17 in value for a total value of \$15639.28

Finally, I was thinking perhaps we could set up a scanner that would prompt the user to select which information they want and then which simulation they'd like to run.

For Example (prints out):

"Welcome to your portfolio. Please select one of the holdings for information"

- "1 for Portfolio"
- "2 for GSPC, S&P 500"
- "3 for DJI, Dow Jones Industrial Average"
- "4 for NASDAQ, IXIC"
- "5 for Russell 2000, RUT"

(enters 2)

"You have selected GSPC, S&P 500. Here is the holding information:"

"GSPC S&P500. Current price is: 4204.11. Last month saw a change of +0.55% or \$23. Current dividend yield is 1.38%"

"Enter 1 to return to portfolio or 2 for simulations"

(enters 2)

"Please select one of the following simulations to run"

"1 for Dividend simulator"

"2 for Ten year growth simulator"

"3 for Twenty year growth simulator"

"4 for COVID19 simulator"

"5 for Mortgage crisis simulator"

(enters 4)

(outputs that sample text from above)

"Welcome to your portfolio. Please select one of the holdings for information"

Etc. etc. the process continues.