Assessed Task #1

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Analysis

The plot in figure 1 shows the total values of the three possible investments (Apple, IBM and Microsoft) starting from 23rd of October 2001 to present. The values at a certain moment are calculated using the following formula : Value = (399 / ***Initial_Price***) * ***Price***, where ***Initial_Price*** is the stock price from 23/10/2001 and the ***Price*** represents the stock price at the desired time.

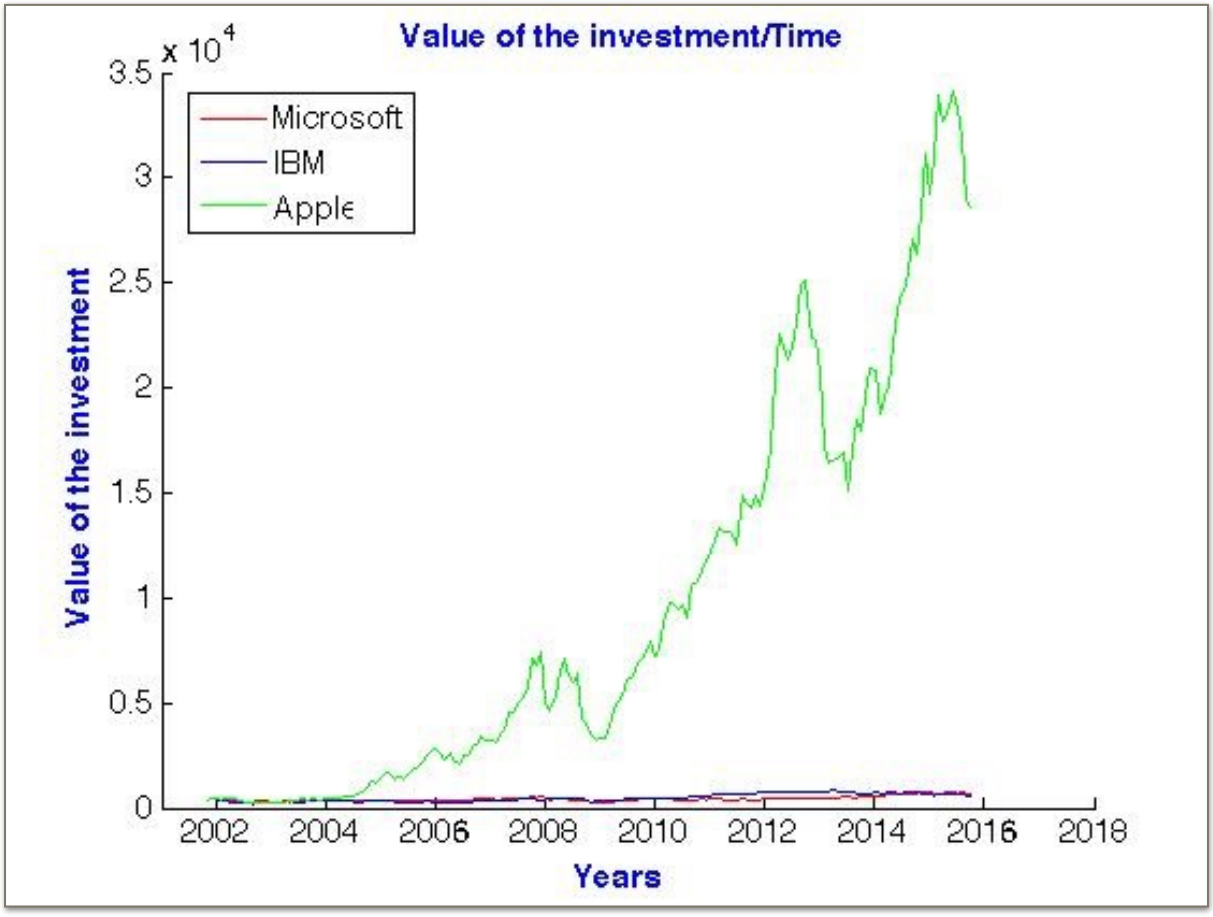

Figure 1 : Plot showing the evolution values of the three possible investments made on the 23rd of October 2001, in three different companies : Apple, IBM and Microsoft.

Answer to section (d) :

Using the formula from the previous sections and considering today's stock prices 763.49 $ (Apple), 145.31 $ (IBM) and 44.75 $ (Microsoft), the today's values for the investment would be :

- for Apple : (399 / 10.65) * 763.49 = 28,603.99 $
- for IBM : (399 / 103.46) * 145.31 = 560.39 $
- for Microsoft : (399 / 25.86) * 44.75 = 690.45 $

Answer to section (e)

By analysing the possible today's values for the investment, we can deduce that, no matter which of this three companies we would have invested in, we would have made a profit. Therefore, our investment would have been wise, even though the potential profit is not that substantial in the cases of IBM and Microsoft.

Appendix : MATLAB Script

```
%getting the data from the three files

apple = dlmread('apple.csv',',',[1 0 168 1]);
apple_price = apple(:,2);

ibm = dlmread('ibm.csv',',',[1 0 168 1]);
ibm_price = ibm(:,2);

microsoft = dlmread('microsoft.csv',',',[1 0 168 1]);
microsoft_price = microsoft(:,2);

DATES = apple(:,1);

%working on the data, to find the number of stocks we could have
%bought with 399$

INVEST = 399;
No_apple = INVEST / apple(168,2);
```

```
No_ibm = INVEST / ibm(168,2);
No_microsoft = INVEST / microsoft(168,2);

%labeling the graph

xlabel('Years  ','fontsize',15,'FontWeight','bold','Color','b');
ylabel('Value of the investment  ‘,’fontsize',
                        15,’FontWeight’,’bold','Color','b');
xlim([2001 2018]);
ylim([0 35000]);
title('Value of the investment/Time  ','fontsize',
                        15,'FontWeight','bold','Color','b');
set(gca,'fontsize',15);

%plotting the graph

hold on

plot(DATES,No_microsoft*microsoft_price,'r-');
plot(DATES,No_ibm*ibm_price,'b-');
plot(DATES,No_apple*apple_price,'g-');
legend('Microsoft  ','IBM  ','Apple  ');

hold off;

% finding today's value of the investment

apple_today = No_apple * apple_price(1);
ibm_today = No_ibm * ibm_price(1);
microsoft_today = No_microsoft * microsoft_price(1);
```