



- Quizzes Review Test Submission: MBC638 Quiz #3 - Descriptive statistics & Pivot tables (due Sunday, Sept. 16, 10:00pm)

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User	David Forteguerra
Course	MBC.638.M001.FALL18.Data Anls & Decisn Making
Test	MBC638 Quiz #3 - Descriptive statistics & Pivot tables (due Sunday, Sept. 16, 10:00pm)
Started	9/16/18 3:58 PM
Submitted	9/16/18 4:45 PM
Status	Completed
Attempt Score	100 out of 100 points
Time Elapsed	46 minutes out of 1 hour and 10 minutes
Results Displayed	All Answers, Submitted Answers, Correct Answers, Feedback, Incorrectly Answered Questions

Question 1

5 out of 5 points



A **scatter plot** is useful to plot the relationship between _____ variables.

Selected Answer: ☒ 2 quantitative

Answers: ☐ 3 quantitative

☐ 1 quantitative and 1 categorical

☒ 2 quantitative

☐ 1 quantitative and 2 categorical

☐ 2 quantitative and 1 categorical

☐ 2 categorical

☐ 3 categorical

Response Feedback:

Question 2

10 out of 10 points



Evaluate the following statement (TRUE or FALSE):

Pivot Chart can only be a **bar chart**.

Selected Answer: ☒ False

Answers: ☐ True

☒ False

Response Feedback:

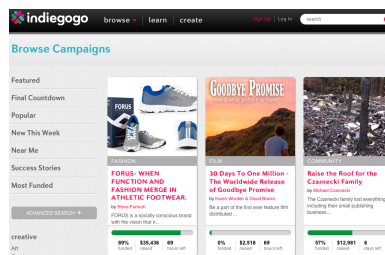
Question 3

15 out of 15 points



Please use data set [Crowdfunding.xlsx](#)

Crowdfunding is the practice of funding a project or venture by raising monetary contributions from a large number of people. Crowdfunding is a form of alternative finance. In 2015, it was estimated that over \$34 billion was raised this way worldwide. *Kickstarter* and *IndieGoGo* are among the most popular crowdfunding sites.



The dataset contains information on 100 recent Kickstarter and IndieGoGo projects, as of November 2016, and was collected by Whitman's MBA students.

Create a Pivot Table and accompanying Pivot Chart, where:

- ROW = Project type (Column H)

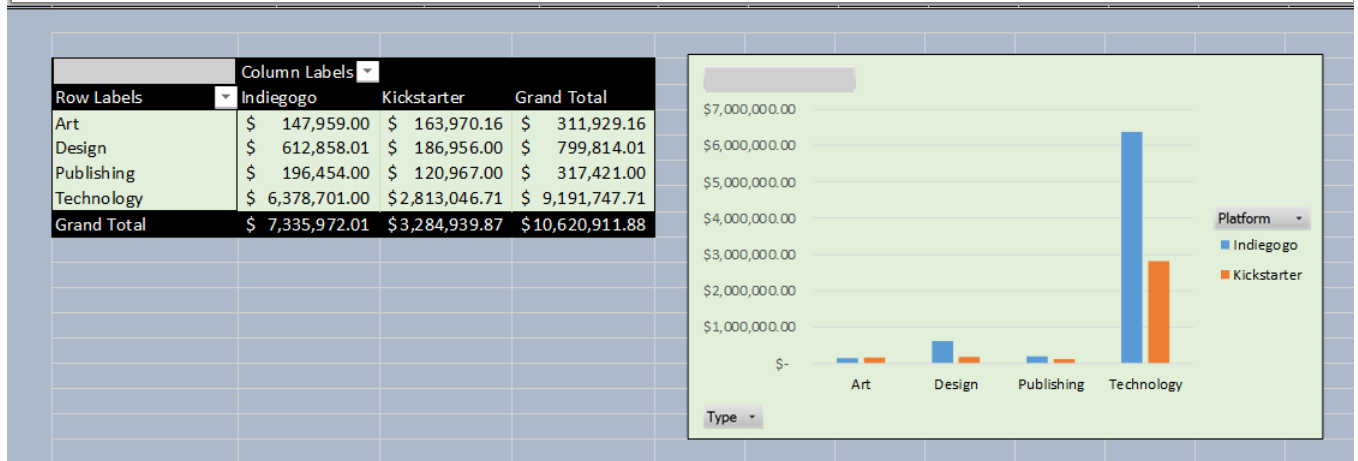
- COLUMN = Platform: Kickstarter or IndieGoGo (Column D)
- VALUE = average amount raised (Column N)

Pick an appropriate combination of Pivot table/chart by clicking on the top or the bottom image.

Selected Answer: 331, 127

Correct Answer: Top Left Coordinates (4, 2) Bottom Right Coordinates (1119, 351)

Instructor selection and student response



Response Feedback:

Question 4

15 out of 15 points



Please see the data file [FinancialIndicators.xlsx](#) Save the data file on your computer and then open it.

The data contains information on financial indicators of 7,112 companies.

Create a **Pivot table** where:

- ROW = **Exchange** (i.e., the stock exchange on which the company trades its stock)
- COLUMN = **Country** (company origin: US or Foreign)
- VALUES = Sum of **Trading Volume**
- For each of the questions below, you must apply an appropriate filter to the data.

The following 4 Pivot tables were generated based on the data:

#1	<table> <tr> <th>Sum of Trading Volume</th><th>Column Labels</th><th></th><th></th></tr> <tr> <th>Row Labels</th><th>Foreign</th><th>US</th><th>Grand Total</th></tr> <tr> <td>AMS</td><td>0.45%</td><td>1.20%</td><td>0.82%</td></tr> <tr> <td>NDQ</td><td>99.45%</td><td>97.06%</td><td>98.28%</td></tr> <tr> <td>NYS</td><td>0.10%</td><td>1.74%</td><td>0.90%</td></tr> <tr> <td>OTC</td><td>0.00%</td><td>0.00%</td><td>0.00%</td></tr> <tr> <td>TSE</td><td>0.00%</td><td>0.00%</td><td>0.00%</td></tr> <tr> <td>Grand Total</td><td>100.00%</td><td>100.00%</td><td>100.00%</td></tr> </table>	Sum of Trading Volume	Column Labels			Row Labels	Foreign	US	Grand Total	AMS	0.45%	1.20%	0.82%	NDQ	99.45%	97.06%	98.28%	NYS	0.10%	1.74%	0.90%	OTC	0.00%	0.00%	0.00%	TSE	0.00%	0.00%	0.00%	Grand Total	100.00%	100.00%	100.00%	<table> <tr> <th>Sum of Trading Volume</th><th>Column Labels</th><th></th><th></th></tr> <tr> <th>Row Labels</th><th>Foreign</th><th>US</th><th>Grand Total</th></tr> <tr> <td>NDQ</td><td>55.73%</td><td>9.73%</td><td>13.09%</td></tr> <tr> <td>NYS</td><td>0.00%</td><td>90.27%</td><td>83.67%</td></tr> <tr> <td>TSE</td><td>44.27%</td><td>0.00%</td><td>3.24%</td></tr> <tr> <td>Grand Total</td><td>100.00%</td><td>100.00%</td><td>100.00%</td></tr> </table>	Sum of Trading Volume	Column Labels			Row Labels	Foreign	US	Grand Total	NDQ	55.73%	9.73%	13.09%	NYS	0.00%	90.27%	83.67%	TSE	44.27%	0.00%	3.24%	Grand Total	100.00%	100.00%	100.00%	#2
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Match the following questions with appropriate answers.

Question

In the **Internet** industry, what proportion of total trading volume of U.S. companies is coming from Nasdaq (NDQ)?

Correct Match

✓ b.
97.06%, from Pivot table #1

Selected Match

✓ b.
97.06%, from Pivot table #1

In the **Internet** industry, what proportion of total trading volume on Nasdaq (NDQ) is coming from U.S. companies?

✓ d.
48.53%, from Pivot table #3

✓ d.
48.53%, from Pivot table #3

All Answer Choices

- a. 68.85%, from Pivot table #4
- b. 97.06%, from Pivot table #1
- c. 9.73%, from Pivot table #2
- d. 48.53%, from Pivot table #3

Response Feedback: 😊 Awesome!

Question 5

15 out of 15 points



Walmart is an American multinational retailing corporation that was founded in 1962. As of January 2017, Walmart has 11,695 stores in 28 countries, and is the world's largest company by revenue according to the Fortune Global 500 list in 2016.

You are provided with historical sales data for 45 Walmart stores located in different regions, covering the period 2010/02/05-2012/11/01.

The data contains anonymized information on the following variables:

- Store: the store number
- Dept: the department number
- Date: the week
- Weekly sales: sales for the given department in the given store (\$)
- IsHoliday: whether the week is a special holiday week (Super Bowl, Labor Day, Thanksgiving, and Christmas)
- Temperature: average temperature in the region
- Fuel Price: cost of fuel in the region
- CPI: consumer price index
- Unemployment: the unemployment rate



Please use Excel file [Walmart sales 2010-2012 store level.xlsx](#).

We are interested in the **average** and **standard deviations** of Walmart's weekly sales for the three store types A, B, and C.

Which of the following Pivot charts/tables correctly represents the data?

Click on the appropriate Pivot chart/table combination (top or bottom).

Hint: To display more than one statistic on the Pivot table, drag and drop the quantitative variable into the VALUES field multiple times.

Selected Answer: ✓ 320, 480

Correct Answer: ✓ Top Left Coordinates (2, 288) Bottom Right Coordinates (928, 596)

Instructor selection and student response



Response Feedback:

Yay!! 😊

Question 6

20 out of 20 points



iPhone 8

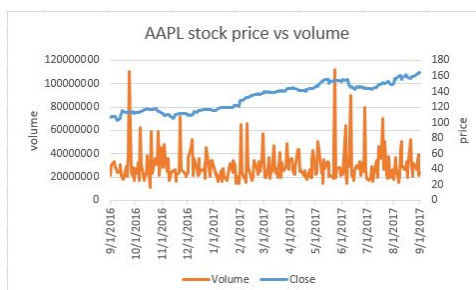
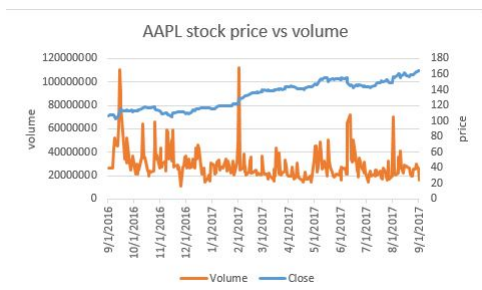
You are a stock market analyst and one of your clients is considering investing in Apple's stock.

You decided to use Apple's daily stock price data over a recent one year period to examine the trends.

To download the data, go to: <https://finance.yahoo.com/>

- Apple's trading symbol is **AAPL**. Type it in the search bar on the top of the page.
- Under the current listed price, find "Summary, Conversations, ..., Historical Data, Analysts." Click on **Historical Data**.
- For the **Time Period** select: **September 1, 2016 -- September 1, 2017**.
- Click **Apply** on the right.
- Click **Download Data**. The data will be in .CSV format. Change the format to .XLSX. Double-check that your data covers the one year period between 9/1/2016 and 9/1/2017. (If it doesn't, it means you forgot to change the time period or you forgot to click Apply.)

- How many rows of data (excluding the header row) do you have in your data? **[c]**
- What is the value in cell **D10**? **[d]**
- Create a time series plot with Date on the x-axis and closing price (*Close* in column E) and transaction volume (*Volume* in column G) on the y-axes. Which of the following two time series charts correctly depicts the data? (left or right) **[a]**



- How would you describe the trend in the stock price? **[b]**

Selected Answer:



iPhone 8

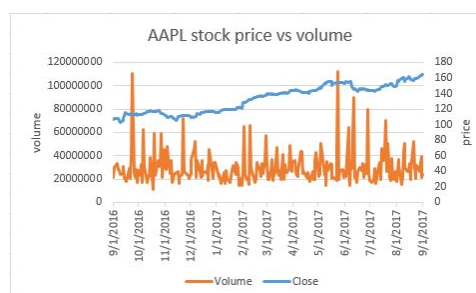
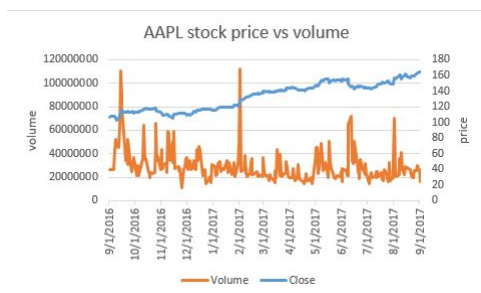
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- How many rows of data (excluding the header row) do you have in your data? **253**
- What is the value in cell **D10**? **108.6**
- Create a time series plot with Date on the x-axis and closing price (*Close* in column E) and transaction volume (*Volume* in column G) on the y-axes. Which of the following two time series charts correctly depicts the data? (left or right) **Left**



- How would you describe the trend in the stock price? **Increasing trend**

Answers:



iPhone 8

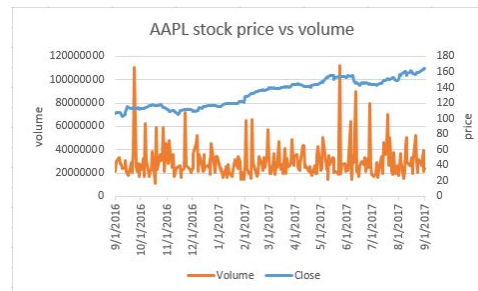
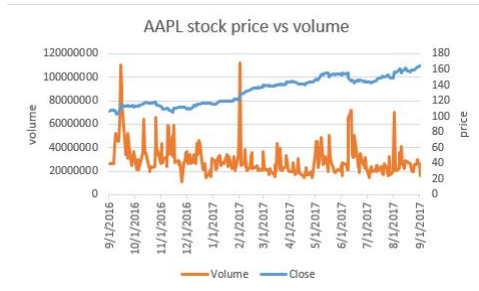
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- How would you describe the trend in the stock price? **Increasing trend**

All Answer Choices

- Left
- Right
- Increasing trend
- Decreasing trend
- No trend
- 250
- 253
- 255
- 108.6
- 102.53
- 114

Response Feedback:

Question 7

20 out of 20 points



Infosys

You are a stock market analyst and one of your clients is considering investing in Infosys's stock. Infosys is an Indian multinational corporation that provides business consulting, information technology and outsourcing services. Its stock is listed on the New York Stock Exchange.

This time, instead of examining the trends in the stock price data, you decided to use Infosys's daily stock price data over a recent one year period and examine the distribution of the company's **daily returns**.

To download the data, go to: <https://finance.yahoo.com/>

- Infosys's trading symbol is **INFY**. Type it in the search bar on the top of the page.
- Under the current listed price, find "Summary, Conversations,, Historical Data, Analysts." Click on **Historical Data**.
- For the **Time Period** select: **September 1, 2016 -- September 1, 2017**.
- Click **Apply** on the right.
- Click **Download Data**. The data will be in .CSV format. Change the format to .XLSX. Double-check that your data covers the one year period between 9/1/2016 and 9/1/2017. (If it doesn't, it means you forgot to change the time period or you forgot to click Apply.)

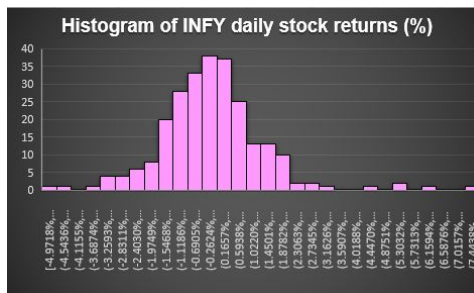
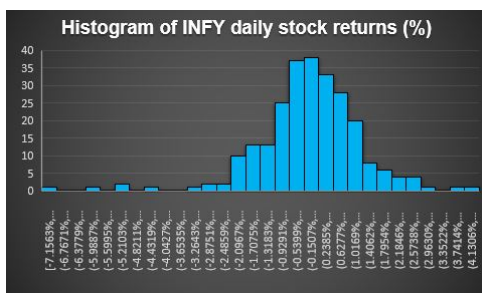
The data that you have downloaded does not contain a variable for the daily returns (%). You need to create one:

- The commonly used formula is: Daily return = (stock price today - stock price yesterday)/(stock price yesterday) or, alternatively, Daily return = (stock price today)/(stock price yesterday) - 1 .
- For the stock price please use the variable **Close** (column E). Create the new variable in column H.
- Convert the stock returns into percentage format. You can do so by going to Home --> "Number" (formatting options in the center of the menu bar) --> click on % symbol.
- Use 4 decimal places for your percentage returns.
- If you did your calculations correctly, then cell H2 is empty and cell H3 contains 1.2422%.

FOR THE FOLLOWING QUESTIONS, PLEASE USE EXCEL, NOT STATTOOLS, TO PRODUCE THE NUMERICAL ANSWERS.

What is the value of daily stock return on 9/14/2016? (round to 4 decimal places; answer in %) **-0.[a][b][c][d] %**

Create a histogram for the daily returns. Use 30 bars when creating the histogram. Which of the following two histograms correctly depicts the distribution of the daily stock returns? (please use: **1 = left** or **2 = right**) **[e]**



What is the **average** daily stock return over the one year period? (round to 4 decimal places; answer in %) **-0.0000** %

What is the **median** daily stock return over the one year period? (round to 4 decimal places; answer in %) **0.0000** %

Based on this numerical summary statistics, is the stock return distribution **left- or right-skewed**? (please use: 1 = left-skewed or 2 = right-skewed) **1**

75 percent of the time, daily stock returns **fall below which value**? (round to 4 decimal places; answer in %) **0.0000** %

If you did the work correctly, you can see that the distribution of stock returns is bell-shaped and approximately symmetric. This is why stock returns are commonly *assumed* to follow the Normal distribution in finance! But, as you can tell from the data, the real distribution is not perfectly Normal.

Selected Answer:

Infosys

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- Infosys's trading symbol is **INFY**. Type it in the search bar on the top of the page.
- Under the current listed price, find "Summary, Conversations, ..., Historical Data, Analysts." Click on **Historical Data**.
- For the **Time Period** select: **September 1, 2016 -- September 1, 2017**.
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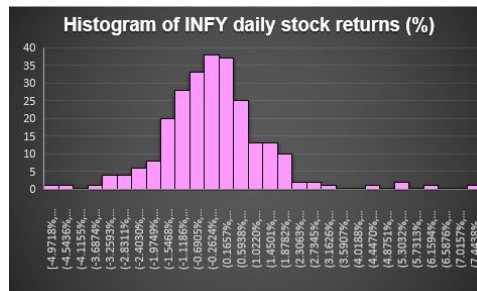
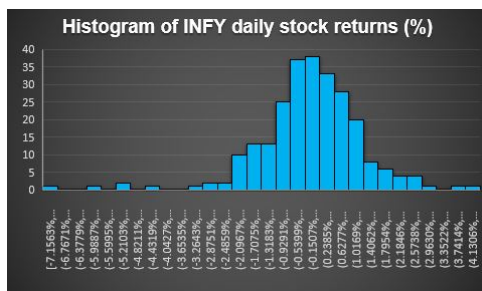
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FOR THE FOLLOWING QUESTIONS, PLEASE USE EXCEL, NOT STATTOOLS, TO PRODUCE THE NUMERICAL ANSWERS.

What is the value of daily stock return on 9/14/2016? (round to 4 decimal places; answer in %) **-0.0006** %

Create a histogram for the daily returns. Use 30 bars when creating the histogram. Which of the following two histograms correctly depicts the distribution of the daily stock returns? (please use: 1 = left or 2 = right) **1**



What is the **average** daily stock return over the one year period? (round to 4 decimal places; answer in %) **-0.0000** %

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Answers:

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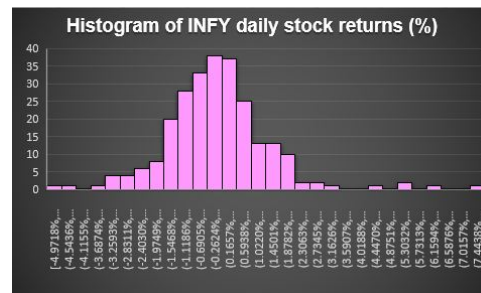
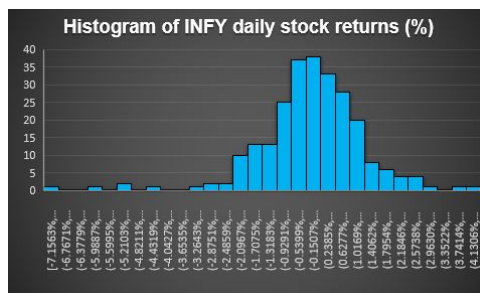
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FOR THE FOLLOWING QUESTIONS, PLEASE USE EXCEL, NOT STATTOOLS, TO PRODUCE THE NUMERICAL ANSWERS.

What is the value of daily stock return on 9/14/2016? (round to 4 decimal places; answer in %) -0.6 6 8 4 9 %

Create a histogram for the daily returns. Use 30 bars when creating the histogram. Which of the following two histograms correctly depicts the distribution of the daily stock returns? (please use: 1 = left or 2 = right) 1



What is the **average** daily stock return over the one year period? (round to 4 decimal places; answer in %) -0.0 0 2 2 7 %

What is the **median** daily stock return over the one year period? (round to 4 decimal places; answer in %) 0.0 0 0 0 0 %

Based on this numerical summary statistics, is the stock return distribution **left- or right-skewed**? (please use: 1 = left-skewed or 2 = right-skewed) 1

75 percent of the time, daily stock returns **fall below which value**? (round to 4 decimal places; answer in %) 0.7 7 7 0 5 %

If you did the work correctly, you can see that the distribution of stock returns is bell-shaped and approximately symmetric. This is why stock returns are commonly *assumed* to follow the Normal distribution in finance! But, as you can tell from the data, the real distribution is not perfectly Normal.

All Answer Choices

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Response Feedback: 😊

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← OK