

Case Analysis 3 Guidelines

Case Analysis Overview

Case Analysis 3 is based on material discussed in the following units:

- **Data Integrity Management (keys, validation, and error correction)**
- **Data Import and Aggregation (import, web queries, and Pivot tables)**
- **Data Manipulation and Printing (Text, Dates, and Time Manipulations)**

You should complete your report using the “Case Analysis 3 Template” document that is available in the Case Analysis 3 folder on D2L. After you complete your assignment, make sure to save and submit the **CA3 Template** as a **PDF file**.

Business Communication Assessment

Business Communication: Since your case analysis report is a formal business document, your responses should be written in well-organized paragraphs, using the rules of English grammar, punctuation, and, sentence structure. A word count is provided to guide you on the length that is appropriate for each question.

As a reminder: all answers to narrative questions must be your original work in your own words. Copying the work of another student (either in the current or prior semester or reusing your own work from this class or another class) or copying information from the web or any other source will be considered as plagiarism. As a reminder, all assignments are checked using TurnItIn.com.

Check the Course Schedule document for the CA 3 assignment due date.

IMPORTANT NOTE

The figures and tables shown as examples in this document are taken from prior assignments and should **ONLY** be used as a guideline for the **graphical style** expected for the task. The **content** of any figure or table should be based exclusively on the information provided in the guidelines for this assignment.

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Important Note for Mac Users

As a reminder, you are expected to use Microsoft Excel 2016 or later versions for Windows when completing assignments in MIS 112. For those who use Office for Mac OSX, Microsoft Office 2011 for OSX does not have support for “slicers.” Since you will need to use slicers to complete this assignment, if you have a Mac with an older version of Excel, you will need to run the Windows version of Office (e.g., through VCAT), or use a Windows computer at an on-campus lab. Excel 2016 for Mac and newer versions (365 and 2019), however, allow the access to slicers.

Task 1

Examine the image below which shows a *validation error* in cells A6 and A10 of a spreadsheet.

	A	B
4	CustomerID	Customer Name
5	C043	John Steel
6	C0123	Jules Verne
7	C032	Howard Snyder
8	C027	Paolo Gomez
9	C034	Mario Jones
10	C35	José Hernandez
11	C036	Yoshi Latimer
12	C003	Antonio Moreno
13	C009	Laurence Davis
14	C010	Elizabeth Lincoln

Task 1(a): In your own words, explain (range: 25-50 words), what kind of data validation rule you think is in place for cells A5-A14 (focus on the *validation criteria*), and how you reached that conclusion.

Task 1(b): In your own words, describe (range: 50-75 words) an example (e.g., taken from your personal experience or from the financial data used for Question 2) that you have encountered that used/uses data validation rules when collecting data, and explain the importance of using validation rules in this case.

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Task 2 – Preparing your data for analysis

You are working for a hypothetical company, *Financial Services of Southern Arizona* (FSSA). FSSA is analyzing stock market transactions placed by its customers. They have requested you to help with the data analysis.

- Begin by downloading the attached Excel workbook called: `CA3_Datafile.xlsx`

The data (contained in the `CA3_Datafile.xlsx` workbook file under the **RawData** worksheet) contains the following columns:

- *TransactionID* (each transaction has its own unique identifier),
- *CustomerID* (the identifier of the customer making the transaction),
- *State* (where the customer lives),
- *Ticker* (stock ticker symbol),
- *Sector* (of the stock, e.g., AAPL belongs to the sector Information Technology)
- *Qty* (number of units of the stock bought or sold),
- *UnitPrice* (unit price for the stock market transaction),
- *Total Dollar Value* of the transaction (i.e., $Qty * UnitPrice$).

Select the **Analysis** worksheet, and complete the following steps:

- Enter your 8-digit studentID (do not use your CatCard number) in Cell **B1**.
- Enter your name in cell **B2** (using the format: LastName, FirstName).

Note: *After you have entered the data in cells B1 and B2, you will see the values you need to use for the Pivot Table row-label filter, and locations to use in the slicer. There will be **5 sectors** listed in cell B3 (for the row label filter), and **5 locations / states** in cell B4 (for the slicer).*

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Task 2(a): Copy and paste from your Excel spreadsheet, the cells (**A1 through B4**), which contain your **student ID, name, row-label filter, Slicer values** to document the sectors and locations you will use for your analysis.

Please paste the cells into your report template document in the space provided. The data should be pasted as a **Word table** (not as an image, nor an embedded Excel object/file). The simplest way to do this is to select your table in Excel, copy it, and paste it on your Word report template.

Make sure all parts of your answer are easily readable (adjust column widths and row heights as necessary), as shown in the example on the right; however, do not redact cells B3 and B4 (i.e., be sure your list of row label filters and slider locations are visible in your report)

Note: row label filter and slicer locations redacted		
	A	B
1	Enter 8-digit Student ID	12345699
2	Enter Your Name	Doe, John
3	Row Label filter	
4	Slicer Locations	

Next, in the **RawData** worksheet: enter the formulas to complete the two missing column entries (**note: you must complete this step *before* proceeding to the creation of the pivot table**).

- In the **State** column (column C), enter a VLOOKUP() function that will find the state each customer lives in (based on the CustomerID (column B) in the RawData worksheet) using the **Customers** worksheet, which contains each customer's data (including IDs, names and states).
- In the **Sector** column (column E), enter a VLOOKUP() function to find the sector for each stock (based on the Ticker symbol (column D) in the RawData worksheet) using the **Stocks** worksheet, which contains each stock's data (including its ticker symbol, stock name and sector).

Task 2(b): Copy and paste into your CA 3 report template document the following **VLOOKUP formulas** from the first cell in each column of the **RawData** worksheet for the following items:

- **2(b) State** [RawData worksheet, Cell C2] (From the **State** column)
- **2(b) Sector** [RawData worksheet, Cell E2] (From the **Sector** column)

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Task 3 – Pivot table

Follow the directions shown below to prepare a PivotTable.

Step 1: Insert a new Pivot table in the **Analysis** worksheet using the “Pivot Table” function on the “Insert” ribbon, as follows:

- Select cell A7 in the **Analysis** worksheet
- Insert a PivotTable based on the (entire) table of data in the **RawData** worksheet
- The new Pivot table should appear on the **Analysis** worksheet.

Step 2: Populate the Pivot table, as follows:

- In the PivotTables Fields pane, drag-and-drop the **Sector** field into the **ROWS** area.
- On the Pivot table, change the column heading from **Row Labels** to **Sector**.
- On the Pivot table, use the drop-down menu to filter the column, so that only the 5 sector types shown in cell **B3** are selected (i.e., corresponding to the **Sector** filter).
- In the PivotTables Fields pane, create the following four items in the **VALUES** area (by dragging-and-dropping the appropriate fields into the VALUES area). They will later be used to answer questions Q1-Q4.
 - Number of unique transactions (*using the COUNT function*).
Format the column with a comma separating the thousands value (i.e., “7654” would be displayed as “7,654”), and do not include any decimal places (i.e., “4567” would be displayed as “4,567” and not “4567.00”)
 - Average of quantity purchased per transaction.
Format the column with a “,000” separator (i.e., a comma separating the thousands value so that “7654” would be displayed as “7,654”) and show two (2) decimal places (i.e., “4567” would be displayed as “4,567.00”).
 - Average of unit price.
Format the column with a currency format (i.e., a value of 1234 should be shown as \$1,234.00), and show two (2) decimal places.
 - Total dollar value of transactions for the sector (*using the SUM function*).
Format the column with a currency format (i.e., 1234 should be show as \$1,234.00), and show two (2) decimal places.
- Insert a **slicer** to the pivot table to filter your data based on the state where the transaction was made. For the slicer values, select only the 5 states shown in cell B4.

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Step 3: Answer the questions Q1 – Q4 shown on the **Analysis** worksheet in cells D2 – D5.

- Enter answers to questions Q1 – Q4 in the **Analysis** worksheet in cells F2 – F5.
To receive credit, the values for your answers MUST be calculated after applying the filtering criteria for both sectors (as a column filter in the Pivot table) and locations (as a slicer value).
 - Note 1: All four answers are found directly on the pivot table. There is no need to calculate anything else.
 - Note 2: Q2 (cell E3) asks for the average transaction quantity across all displayed sectors; not for just a single sector, as filtered for your specific locations.
- Be sure you professionally format your Pivot table, slicer, and the answers fields for questions Q1 – Q4 by adjusting the row heights and column widths so that the data and questions are easily readable and the formatting is consistent with the Pivot table formatting.

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Task 3(a): Copy and paste from your Excel spreadsheet the cells containing the Pivot table (if you performed the steps correctly, cells **A7 through E13**).

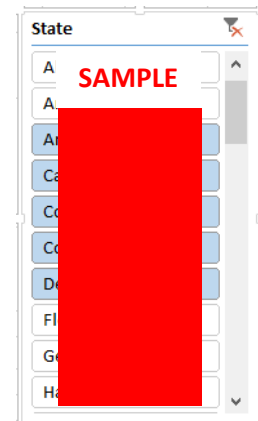
Paste this material into your CA 3 Report Template document in the space provided. The data should be pasted as a **Word table** (not as an image nor an embedded Excel object or file). The simplest way to do this is to select your table in Excel, copy it, and paste it on your Word report template. Ensure that your table is professionally formatted and all parts of your answer are easily readable by adjusting column widths and row heights as necessary, as shown below.

	Count of	Average of	Average of	Sum of Total
SAMPLE				
Energy				
Grand Total	1,024	6,575	\$75.06	\$496,693,956.50

Task 3(b): Copy and paste from your Excel spreadsheet, the slicer showing at least 10 locations including the locations you have chosen in the slicer (which show up shaded).

Paste the slicer as an image into your CA 3 Report Template document in the space provided. Ensure that your list of locations can be clearly read, as shown to the right.

Note: You may need to include two images if your list of locations is not alphabetically contiguous.



Task 3(c): In the space provided for each question number, please write down your answers from your spreadsheet for each question: Q1 – Q4. Do not copy and paste the Excel cells. Questions Q1 – Q4 can be found on the **Analysis** worksheet in cells E2 to E5.

D	E	F
Question Number	Questions (answer after filtering sectors and locations)	Answer
	Which sector had the	

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General Applied Business Project Report Guidelines

Using the CA-3 Assignment Template

To avoid possible problems, make sure that you use the CA Report Template document, since it includes the *required* E-tegrity statement and an outline for the required sections with placeholders for your answers. Be sure you update the header information with your name and UA email address. If you elect not to use the CA Report Template or create a new document based on it, you will lose credit as indicated in the list of major penalties below.

Assignment Report Deliverable

As a reminder, your report must include all elements of the report template, including the E-Tegrity statement, report header title block, and the task section headers. It is your responsibility to ensure that you submitted the correct file.

You must submit ONLY your completed report. Do NOT submit your Excel file.

You MUST submit your CA 3 Assignment Report as a PDF document.

Major Penalties

Criteria	Penalty
<u>Not using the CA 3 report template</u> - Even if we can open and grade your assignment, if you do not use the CA 3 assignment template to prepare your report, a <u>5-point penalty</u> will be deducted from your score.	-5 points
<u>Not submitting your report in PDF file format</u> - Even if we can open and grade your assignment, if you submit your report in any other format (e.g., Word or Pages), a <u>10-point penalty</u> will be deducted from your score.	-10 points
<u>Not including the E-Tegrity statement in your report</u> – The report template already includes the E-Tegrity statement. If your submitted document does not have the statement at the top of the first page, a <u>20-point penalty</u> will be deducted from your score.	-20 points
<u>Submitting the wrong document, a blank template, or a document that cannot be opened</u> - You will not receive any credit for the assignment. However, you may still submit your report for partial credit, which has a 20-point penalty.	-100 points