

Course Textbook(s)

Camm, J. D., Cochran, J. J., Fry, M. J., & Ohlmann, J. W. (2022). *Data visualization: Exploring and explaining with data*. Cengage Learning. <https://online.vitalsource.com/#/books/9798214341378>

Course Learning Outcomes

Upon completion of this course, students should be able to:

1. Analyze techniques used for data collection.
2. Summarize the steps for connecting data to a business intelligence (BI) environment.
3. Assess the requirements needed to create data visualizations.
4. Determine the access controls for data visualizations.
5. Design data visualizations for functional areas.
6. Evaluate data analytic outputs for decision-making.

Discussions with the Discussion Responses later

Part I: Introduce yourself to your classmates with your name, location, current employment, and future goals.

Part II: Why do organizations use data analytics for decision-making? Consider your own current or former place of employment and choose a specific department (e.g., accounting, information technology, human resources, manufacturing, or sales). Provide an example of how you believe visualizations can help growth or management in that department.

In your reply to a classmate, respond to someone who has chosen a different department than you did.

If no initial posts exist to allow for a response to be made, you may submit an additional initial post addressing another aspect of the unit topic.

By submitting this assignment, I verify that I am submitting an original work in accordance with the Academic Integrity

Click [here](#) for the LipGuide for this course.

Unit Assignments

Unit III Assignment

Dante Visualization Design

Imagine that you work for a medium-sized retail company, and you have been charged with identifying a business intelligence (BI) application for the organization to use in the future. This will be the first iteration, so you will need to provide a review of the features, access control, pricing, and potential requirements needed to decide if the application is a good fit for the organization. Potential BI application examples include Tableau, MS Power BI, Birst, SAP Business Objects, SAS, and Epicor Data Analytics, though there are others.

Examples of requirements you should explore include

- the ability to generate useful and clear outputs,
- the ability to update and customize fonts for outputs,
- the ability to connect to a database such as MS SQL Server,
- the ability to refresh data with multiple frequencies,
- the ability to add and remove elements for the outputs, and
- the ability to create access groups to view designated outputs.

The above are examples, but you will need to create a total of five unique requirements that are essential for the business intelligence application. You will include your unique requirements in the Five Requirements for a BI Application section below. You will need to elaborate on each of them to ensure that they are clear requirements for the application. Research existing examples online to help guide the requirement development. Remember, requirements need to be measurable and testable.

Begin your assignment with a title page and end with a references page. Use the following headings when organizing the information in your paper:

- General Usage and Benefits of BI in the Retail Industry
 - This section will include your review of the BI application that will discuss font, charting, design, flexibility, and access control options.
 - Think about how the departments will interact with the visualizations.
- Data Connections Available for the BI Application
 - Think in terms of connecting to a database, customer relationship management system, or enterprise resource planning system.
 - Pricing Per User
- How does the pricing compare to other BI applications?
- Five Requirements for a BI Application
 - Review the examples above, then create your unique requirements.

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- Provide a short statement on each, identifying if the BI application in your research meets the requirement. It will be fine if the BI application ends up not meeting a requirement or is insufficient in the area.
- Conclusion

You will need to use at least three scholarly resources for your research. Adhere to APA Style when constructing this assignment, including in-text citations and references for all sources that are used. Please note that no abstract is needed.

Use 12-pt Times New Roman font and double-space your content when writing your paper. Your paper will need to be at least 1200 words, which totals five pages of content, not counting the title and references pages.

Unit IV Journal

Using colors for outputs

Research a few color wheels or palettes, and explain how using this type of tool can help you select colors that will be beneficial for your visualizations? Also, what steps can you take if you select a color pattern, but an executive or client wants different colors after the outputs have been generated? What if his/her color choices are a bad combination? How should you address this?

Your journal entry must be at least 200 words in length. No references or citations are necessary.

Unit VIII Journal

Analyzing Data Visualizations

For this journal assignment, you will compose a written response based on the answers to the following questions:

- What is the advantage of creating a dashboard?
- How can organizations benefit from these dashboards?
- What types of outputs or dashboard does a business intelligence developer have when trying to measure the performance of a team, department, or organization?
- What strategies can be used to avoid using overcrowding and unnecessary complexity in data dashboard design?
- What issues can business intelligence developers experience if they discover that there is missing data once the visualizations have been created? How can this be avoided?

Your response must consist of a minimum of 500 words.

APA Guidelines

The application of the APA writing style shall be practical, functional, and appropriate to each academic level, with the primary purpose being the documentation (citation) of sources. CSU requires that students use APA style for certain papers and projects. Students should always carefully read and follow assignment directions and review the associated grading rubric when available. The CSU Citation Guide includes examples and sample papers and provides information on how to contact the CSU Writing Center.