

Syllabus

Course Overview

IT4230, Managing Data Integration, concentrates on data integration and the role that it plays in data management. Included in the course is to evaluate the legal and ethical environment that dictate the strategies and tools that are available for data integration within the data management context. Learners will explore methodologies, tools and strategies that enhance the ability for data integration to support the work of data management.

Course Competencies

(Read Only)

To successfully complete this course, you will be expected to:

- 1 Analyze the legal and ethical issues that impact data integration tools and strategies.
- 2 Apply data integration workflow within a data management context.
- 3 Research the methodologies and tools that are available to support data integration.
- 4 Apply data integration tools and strategies.
- 5 Communicate effectively.

Course Prerequisites

IT2230.

Syllabus >> Course Materials

Required

The materials listed below are required to complete the learning activities in this course.

Library

The following required readings are provided in the Capella University Library or linked directly in this course. To find specific readings by journal or book title, use [Journal and Book Locator](#). Refer to the [Journal and Book Locator library guide](#) to learn how to use this tool.

- Arenas, M., Perez, J., & Reutter, J. (2013). [Data exchange beyond complete data](#). *Journal of the ACM*, 60(4), 1–59.
- Baker, K. (2007). [Data integration methodologies in market research](#). *International Journal of Market Research*, 49(4), 435–447.
- Biesdorf, S., Court, D., & Willmott, P. (2013). [Big data: What's your plan?](#) *McKinsey Quarterly*, (2), 40–51.
- Brueggemann, T. (2010). [Chapter 5: How understanding impacts ethics and privacy](#). In Lentz Leadership Institute (Eds.), *The refractive thinker: Volume IV*, pp. 81–102. Online: Author.
- Friedman, T. (2009). [Integration rationalization](#). *Information Management*, 19(4), 25.
- Gang-Hoon, K., Trimi, S., & Il-Hyong, C. (2014). [Big-data applications in the government sector](#). *Communications of the ACM*, 57(3), 78–85.
- Hess, M., & Doe, P. (2013). [The marketer's dilemma: Focusing on a target or a demographic? The utility of data-integration techniques](#). *Journal of Advertising Research*, 53(2), 231–236.
- Kavanagh, E., & Ericson, J. (2010). [Getting back to basics: Data integration strategies and tactics](#). *Information Management*, 20(2), 8.
- Lopez, J. A. (2011). [Data integration acceleration: Solving data performance bottlenecks in your existing environment](#). *Business Intelligence Journal*, 16(3), 45–49.
- Malavalli, K. (2014). [To cloud or not to cloud](#). *Siliconindia*, 40–41.
- Mitchell, R. L. (2012). [Integration in the cloud](#). *Computerworld*, 46(5), 24–26.
- Pavolotsky, J. (2012). [Demystifying big data](#). *Business Law Today*, 21(21), 1–4.
- Preis, M., & Seitz, J. (2012). [Faster and better decisions in changing environments using a hybrid approach of data warehouse integration](#). *Economics & Management*, 17(2), 754–760.
- Sherman, R. (2008). [Back to the basics of data warehousing](#). *DM Review*, 18(10), 36.
- Sherman, R. (2009). [Beyond ETL & data](#). *Information Management*, 2–7.
- Smith, H. A., & McKeen, J. D. (2011). [The identity management challenge](#). *Communications of the Association for Information Systems*, 28, 169–180.
- Stephen, M., & Kleiner, B. H. (2011). [Better data means better decisions](#). *Industrial Management*, 53(4), 22–25.
- Thoo, E. (2010). [Data in the cloud](#). *Enterprise Innovation*, 6(2), 13.
- Vance, J. (2013). [Ranking the top 10 cloud startups](#). *CIO (13284045)*, 26.
- Wailgum, T. (2008). [One company, one vision, one TRUTH](#). *CIO*, 21(7), 30–39.
- Zhao, K., & Xia, M. (2014). [Forming interoperability through interorganizational systems standards](#). *Journal of Management Information Systems*, 30(4), 269–298.

External Resource

Please note that URLs change frequently. While the URLs were current when this course was designed, some may no longer be valid. If you cannot access a specific link, contact your instructor for an alternative URL.

Permissions for the following links have been either granted or deemed appropriate for educational use at the time of course publication.

- Alteryx. (Producer). (2013). [Tableau integration – Cleansing and preparing data \[Video\]](https://www.youtube.com/watch?v=eWgQrm1BaWY). Retrieved from <https://www.youtube.com/watch?v=eWgQrm1BaWY>
- Auer, S. (Producer). (2013). [Linked data for enterprise information integration \[Video\]](http://www.youtube.com/watch?v=WYsvXrx1llg). Retrieved from <http://www.youtube.com/watch?v=WYsvXrx1llg>
- Dill, R. (Producer). (2013). [Big data-as-a-service demo \[Video\]](https://www.youtube.com/watch?v=XfAr5rvabqs&list=PLL0RXvw9Od-luDgYvf1bcNn1MIIUZr8Sm&index=7). Retrieved from <https://www.youtube.com/watch?v=XfAr5rvabqs&list=PLL0RXvw9Od-luDgYvf1bcNn1MIIUZr8Sm&index=7>
- New England Systems. (Producer). (2013). [An era of big data and IBM \[Video\]](http://www.youtube.com/watch?v=40MO_jnbqXU). Retrieved from http://www.youtube.com/watch?v=40MO_jnbqXU
- Pentaho Analytics. (Producer). (2013). [Pentaho's big data integration workflow \[Video\]](https://www.youtube.com/watch?v=4YIEHGiLuBU). Retrieved from <https://www.youtube.com/watch?v=4YIEHGiLuBU>
- Sherman, R. (2003). [Five essential components of a data integration framework](http://www.information-management.com/issues/20031001/7402-1.html). Retrieved from <http://www.information-management.com/issues/20031001/7402-1.html>
- Silicon Valley Bio Talks. (Producer). (2012). [Winning strategies for clinical data integration \[Video\]](https://www.youtube.com/watch?v=MGmnCoHC2es). Retrieved from <https://www.youtube.com/watch?v=MGmnCoHC2es>
- Syncsort. (Producer). (2014). [Best practices for big data integration \[Video\]](https://www.youtube.com/watch?v=5AEg2kH363U). Retrieved from <https://www.youtube.com/watch?v=5AEg2kH363U>

Suggested

The following materials are recommended to provide you with a better understanding of the topics in this course. These materials are not required to complete the course, but they are aligned to course activities and assessments and are highly recommended for your use.

Optional

The following optional materials are offered to provide you with a better understanding of the topics in this course. These materials are not required to complete the course.

Projects

Project >> Executive Presentation

Project Overview

Research and select a data integration workflow model to support organizational data management and data integration:

- The first part of the course project focuses on the development of workflow as a contributor to data integration. You will create a data integration workflow diagram based on the chosen model.
 - The second part of the course project focuses either on a case study where the proposed workflow can be used or a predicted method in which the workflow can help solve a data management problem.
 - The third part of the course project is to compile all project components into a comprehensive executive presentation.
 - Complete and revise all components of the project.
-
- **Written communication:** Written communication is free of errors that detract from the overall message.
 - **APA formatting:** Resources and citations are formatted according to [APA \(6th Edition\) style and formatting](#).
 - **Number of resources:** Minimum of 10 resources.
 - **Length of paper:** 12–15 typed double-spaced pages.
 - **Font and font size:** Times New Roman, 12 point.

Unit 1 >> Legal and Ethical Issues of Data Integration

Introduction

This unit provides an overview of data integration concepts in relation to legal and ethical issues. Data integration impacts many aspects of our daily lives, from banking to social media. Given that data integration involves the combining of data from different sources, and used by different users, addressing legal and ethical issues are essential. For example, market researchers use technology to gather and manage customer data, in order to contact and build customer relationships. The gathering of this data may derive from various sources and used by the market researcher. Another example is electronic access to personal information, such as online banking and online retail services. There are often concerns in having access to personal information and how the information is integrated into business databases. Breach of confidentiality is a possibility, as well as identity theft.

The readings in this unit will provide additional information on the relationship between data integration and legal and ethical issues. You will have an opportunity to outline a data integration plan and develop a policy related to legal and ethical issues.

Learning Activities

u01s1 - Required Reading

The required reading contains foundational information on the ethical and legal impacts of data integration and will support completion of the Unit 1 assignment and discussion.

- Pavolotsky, J. (2012). [Demystifying big data](#). *Business Law Today*, 21(21), 1–4.
- Smith, H. A., & McKeen, J. D. (2011). [The identity management challenge](#). *Communications of the Association for Information Systems*, 28, 169–180.
- Brueggemann, T. (2010). [Chapter 5: How understanding impacts ethics and privacy](#). In Lentz Leadership Institute (Eds.), *The refractive thinker: Volume IV*, pp. 81–102. Online: Author.
- Hess, M., & Doe, P. (2013). [The marketer's dilemma: Focusing on a target or a demographic? The utility of data-integration techniques](#). *Journal of Advertising Research*, 53(2), 231–236.
- Biesdorf, S., Court, D., & Willmott, P. (2013). [Big data: What's your plan?](#). *Mckinsey Quarterly*, (2), 40–51.
- Arenas, M., Perez, J., & Reutter, J. (2013). [Data exchange beyond complete data](#). *Journal of the ACM*, 60(4), 1–59.

u01s2 - Web Resources

Video

The objective of this video is to enhance the required reading and to provide context to the topic of data integration which will support completion of the Unit 1 assignment and discussion.

- Auer, S. (Producer). (2013). [Linked data for enterprise information integration](#) [Video]. Retrieved from <http://www.youtube.com/watch?v=WYsvXrx1llg>

u01a1 - Data Integration Plan

Having a data integration plan is a key component to successfully addressing legal and ethical issues in the transfer and use of data. It also establishes a foundation to mitigate risk. For this assignment, you will create an outline for a data integration plan, select a particular aspect of the plan that relates to legal and ethical impacts of data integration, and use that topic to develop a policy and procedure to ensure regulatory and ethical compliance.

To complete this assignment:

1. Outline key components of a data integration plan. Consider all the legal and ethical issues in developing outline topics.
2. Choose one topic or component—it should be a legal or ethical topic.
3. Develop a policy and procedure to address the chosen topic.

Assignment Requirements

- **Written communication:** Written communication is free of errors that detract from the overall message.
- **APA formatting:** Resources and citations are formatted according to APA (6th edition) style and formatting.
- **Length of paper:** 3–5 pages, excluding the references page.
- **Font and font size:** Times New Roman, 12 point.

Resources

-  [Capella Undergraduate Resources: APA Citing and Referencing.](#)

Course Resources

[APA Style and Format](#)

u01d1 - Mitigating Risks

One way to mitigate risks with data integration is to appoint a risk manager or use risk management tools and strategies. Think about a personal experience where your data was used, but could have presented a legal risk. What data integration tools and strategic could be used to mitigate the risks? Support your discussion with at least one related article or literature review.

Response Guidelines

Respond to at least two other learners and enhance their initial post by providing additional ideas for strategies that could mitigate risk to data.

Course Resources

Undergraduate Discussion Participation Scoring Guide

Unit 2 >> Data Integration Workflow

Introduction

This unit will discuss the concept of data integration, in relation to workflow. Integration, sometimes referred to as interoperability, is simply the ability for databases to interchange or combine information. Workflow is the sequence of processes through which a task is performed from start to finish; or from input to output. Furthermore, data workflow should address data integration for data sharing and exchange. Data workflow integration can impact organizational and individual performance, and create bottlenecks if not properly designed. It can also act as a catalyst for effective data management processes.

The readings in this unit will provide additional information on data integration and the importance of effective workflow for information sharing. You will also have an opportunity to create a data integration workflow, as in introduction to your data management course project.

Learning Activities

u02s1 - Required Readings

The required reading contains foundational information on the ethical and legal impacts of data integration and will support completion of the Unit 2 assignment and discussion.

- Lopez, J. A. (2011). [Data integration acceleration: Solving data performance bottlenecks in your existing environment](#). *Business Intelligence Journal*, 16(3), 45–49. This article describes the common scenarios that cause data integration bottlenecks and maintaining data warehouses.
- Wailgum, T. (2008). [One company, one vision, one TRUTH](#). *CIO*, 21(7), 30–39. The article presents information on insurance and financial service company Nationwide Insurance, which adopted master data management (MDM) processes to help manage their data flow.
- Zhao, K., & Xia, M. (2014). [Forming interoperability through interorganizational systems standards](#). *Journal of Management Information Systems*, 30(4), 269–298. Interoperability is a crucial organizational

capability that enables firms to manage information systems. This article discusses the importance of interoperability and whether it can improve organizational performance.

- Preis, M., & Seitz, J. (2012). [Faster and better decisions in changing environments using a hybrid approach of data warehouse integration](#). *Economics & Management*, 17(2), 754–760. This article discusses the importance of relevant data the use of data for strategic decisions.
- Arenas, M., Perez, J., & Reutter, J. (2013). [Data exchange beyond complete data](#). *Journal of the ACM*, 60(4), 1–59. This is a research paper that explores data exchange concepts.

u02s2 - Web Resources

Video

The objective of these videos is to enhance the required reading and to provide support for completion of the Unit 2 assignment and discussion.

- Pentaho Analytics. (Producer). (2013). [Pentaho's big data integration workflow](#) [Video]. Retrieved from <https://www.youtube.com/watch?v=4YIEHGiLuBU> – 7 minutes.
- Alteryx. (Producer). (2013). [Tableau integration – Cleansing and preparing data](#) [Video]. Retrieved from <https://www.youtube.com/watch?v=eWgQrm1BaWY> – 24 minutes.
- Dill, R. (Producer). (2013). [Big data-as-a-service demo](#) [Video]. Retrieved from <https://www.youtube.com/watch?v=XfAr5rvabqs&list=PLL0RXvw9Od-luDgYvf1bcNn1MIIUZr8Sm&index=7> – 15 minutes

Web Site

The objective of this resource is to demonstrate the variety of workflow diagrams that are available for your consideration as part of the Unit 2 assignment and discussion.

[Images of data integration workflow diagrams.](#)

Internet and Library Research

Use the following keywords to engage in research on the topic of data integration workflows, which will support completion of the Unit 2 assignment and discussion.

- Data integration workflows.
- Workflow for data integration.
- What is data integration?
- Data integration from multiple sources.
- Data integration phases.

- Data integration resources.

u02a1 - Data Integration Workflow

The purpose of the first part of your course project is to select a workflow model that is effective in supporting the data integration. Read the description of your course project, then write a 3–5 page paper that includes the following:

- **Course Project Definition**

- Identify a workflow model that contributes to effective data integration to support data management activities.
- Provide a description of the workflow model and describe how it relates to creating effective data integration.
- Discuss how the workflow model may contribute to specific business process and organizational effectiveness.
- Create a specific data integration workflow diagram. This diagram will serve as the foundation to your data management project.

- **Type of Organization**

- Define a specific organization or type of organization for which the data integration workflow model can be implemented.
- Explain how this particular data integration workflow meets the objectives of supporting data management activities of an organization of the size and type you selected.

- **Course Project Goals**

- Define and recommend short-term goals for the data integration workflow to support data management.
- Define and recommend long-term (3–5 years) goals of using the data integration workflow.

Assignment Requirements

- **Written communication:** Written communication is free of errors that detract from the overall message.
- **APA formatting:** Resources and citations are formatted according to APA (6th edition) style and formatting.
- **Length of paper:** 3–5 pages, excluding the references page.
- **Font and font size:** Times New Roman, 12 point.

Resources

-  [Capella Undergraduate Resources: APA Citing and Referencing.](#)

u02d1 - Complexity of Data Integration

The concept of data integrations appears to be simple, but can be a very complex process. It can become particularly complex in organizations where sensitive or personal information is used, such as health care and financial institutions. Given that, why is data integration important for effective data management processes? How critical is it to have a comprehensive integration plan by using tools such as data integration workflow?

Response Guidelines

Respond to at least two other learners and share with them the information in their initial post that you found most helpful in helping you understand the concepts.

Unit 3 >> Methodologies and Tools

Introduction

The extract, transform and load (ETL) process refers to three distinct functions but works as a single tool to capture, prepare and report data. Furthermore, it is a significant component and tools for data integration. There are several levels on which the integration can be performed. In this unit you will explore the use of methods and tools to support data integration. The use of data integration tools depends on several factors, including size of organization, data needs, complexity and types of data.

The readings in this unit will provide additional information on data integration methodologies and tools. Example cases are discussed, as well as strengths and weaknesses of a selection of integration techniques.

You will continue with your course project and outline specific data integration tools that will be used with your specific case study or organization.

Learning Activities

u03s1 - Required Readings

The required reading contains foundational information on the ethical and legal impacts of data integration and will support completion of the Unit 3 assignment and discussion.

- Baker, K. (2007). [Data integration methodologies in market research](#). *International Journal of Market Research*, 49(4), 435–447. This article discusses data integration techniques involving the combining of information from two or more data sources as well as outline the strengths and weaknesses of a selection of such techniques.
- Sherman, R. (2009). [Beyond ETL & data](#). *Information Management*, 2–7. Data integration tools provide a number of significant processes and technologies that extend beyond the basic ETL tasks, such as data migration and master data management. The article discusses data integration beyond Extract, Transform, Load (ETL) processes and data warehousing.
- Friedman, T. (2009). [Integration rationalization](#). *Information Management*, 19(4), 25. This article includes an interview with the vice president of Distinguished Analyst Gartner Inc., discussing organizational models for data integration. The article also discusses that improving quality, reuse, and better leveraging of investments can be made when data integration tools are being applied.
- Sherman, R. (2008). [Back to the basics of data warehousing](#). *DM Review*, 18(10), 36. The article discusses the fundamentals of data warehousing, in addition to basic principles for designing a data architecture and maximizing data integration.
- Hess, M., & Doe, P. (2013). [The marketer's dilemma: Focusing on a target or a demographic? The utility of data-integration techniques](#). *Journal of Advertising Research*, 53(2), 231–236. Data-integration techniques can be useful tools as marketers continue to improve overall efficiency and return on investment. This article reviews different methods of data integration according to the case study.

u03s2 - Web Resources

Video

The objective of these videos is to enhance the required reading, to provide context on data integration tools and to support completion of the Unit 3 assignment and discussion.

- Syncsort. (Producer). (2014). [Best practices for big data integration](https://www.youtube.com/watch?v=5AEg2kH363U) [Video]. Retrieved from <https://www.youtube.com/watch?v=5AEg2kH363U> – 61 minutes.

Internet and Library Research

Use the following keywords to engage in research on the topic of data integration tools and techniques which will support completion of the Unit 3 assignment and discussion.

- Data integration tools.
- Data integration techniques.
- Data integration steps.
- Data integration resources.
- Tools for integration of data.
- Techniques for integration of data.

u03a1 - Data Integration Tools

This assignment covers the approach for implementing the data workflow model. For consistency, you should apply these concepts to the organization identified in Unit 2 for which the model will be implemented.

Research and write a 3–5 page paper that covers the following:

1. Specifically examine how the data workflow model will impact effective organizational data management to support data integration activities.
2. Identify the methodologies and tools that are available to support data integration.
3. Specifically address how the tools can be used within your chosen organization/case.
4. Describe the methodologies and tools that are available to support data integration.
5. Outline the methodologies and tools appropriate to support your specific example, case, or organization for data integration.
6. Address environmental factors— both internal and external—that may impact the implementation.

Assignment Requirements

- **Written communication:** Written communication is free of errors that detract from the overall message.
- **APA formatting:** Resources and citations are formatted according to APA (6th edition) style and formatting.
- **Length of paper:** 3–5 pages, excluding the references page.
- **Font and font size:** Times New Roman, 12 point.

Resources

-  [Capella Undergraduate Resources: APA Citing and Referencing.](#)

Course Resources

[APA Style and Format](#)

u03d1 - Data Integration Tools Pros and Cons

Data integration involves combining data from different sources. SAS is a common tool known for data integration and combining data from different sources. Perform a Web search on SAS. Discuss the pros and cons of using the software. How does this compare to your chosen tool?

Response Guidelines

Respond to at least two other learners and compare your findings.

Course Resources

[Undergraduate Discussion Participation Scoring Guide](#)

Unit 4 >> Data Integration Strategy

Introduction

Last week, you explored the use of data integration methodologies and tools and related case studies. You were also able to identify strengths and weaknesses of data integration techniques. In this unit, you will continue to review data integration tools and focus on specific data integration implementation strategies. As a significant component to data integration, the extract, transform and load (ETL) process requires strategic planning and detailed direction. An integration strategy considers the current and future management of data within the organization, as well as evolving trends and plans to adapt to data changes. A data integration strategy positions the organization for growth and change.

The readings in this unit will provide additional information on data integration tools and strategies, as well as data integration products. You will continue with your course project by describing your specific data integration strategy.

Learning Activities

u04s1 - Required Reading

The required reading contains foundational information on the ethical and legal impacts of data integration and will support completion of the Unit 4 assignment and discussion.

- Vance, J. (2013). [Ranking the top 10 cloud startups](#). *CIO* (13284045), 26.
 - The article features ten startup firms in the cloud computing sector. Data management solutions provider BrightTag develops cloud-based data integration products for various clients.
- Gang-Hoon, K., Trimi, S., & il-Hyong, C. (2014). [Big-data applications in the government sector](#). *Communications of the ACM*, 57(3), 78–85.
 - The article discusses several ways in which governments reportedly use big-data applications, focusing on digital data collection practices, extract, transform, and load (ETF) processes. A comparison is provided regarding the goals, missions, and strategies of the business.
- Kavanagh, E., & Ericson, J. (2010). [Getting back to basics: Data integration strategies and tactics](#). *Information Management*, 20(2), 8.
 - The article focuses on the application by the information management industry of data integration strategies and tactics.
- Biesdorf, S., Court, D., & Willmott, P. (2013). [Big data: What's your plan?](#). *McKinsey Quarterly*, (2), 40–51.
 - The article presents information about how a company can make plans for using big data, a term for the collection of data sets so large and complex that traditional data processing applications cannot handle it. It also discusses a company's challenges in planning, strategy, and ensuring acceptance by those who use the strategies.
- Malavalli, K. (2014). [To cloud or not to cloud](#). *Siliconindia*, 40–41.
 - The author discusses the significance of cloud computing, and the migration of business resources into the cloud environment.
- Thoo, E. (2010). [Data in the cloud](#). *Enterprise Innovation*, 6(2), 13.
 - The article explores the benefits of cloud-based services. It states that understanding of data access, usage, and management infrastructure is established before examining a vendors' cloud-based offerings wherein it evaluates the reliability of delivery. Data integration and other legal and regulatory policies are also considered.
- Mitchell, R. L. (2012). [Integration in the cloud](#). *Computerworld*, 46(5), 24–26.
 - The article presents a case study which shows how Mohawk Fine Papers Inc. is saving lots of money by using cloud computing for its business-to-business (B2B) transactions; to perform the integration

work and setting the connections to Mohawk's enterprise resource planning (ERP) systems through cloud-based service.

u04s2 - Web Resources

Video

The objective of these videos is to demonstrate strategies others are using to create an effective data integration strategy and will support completion of the Unit 4 assignment and discussion.

- Silicon Valley Bio Talks. (Producer). (2012). [Winning strategies for clinical data integration](https://www.youtube.com/watch?v=MGmnCoHC2es) [Video]. Retrieved from <https://www.youtube.com/watch?v=MGmnCoHC2es> – 60 minutes.
- New England Systems. (Producer). (2013). [An era of big data and IBM](http://www.youtube.com/watch?v=40MO_jnbqXU) [Video]. Retrieved from http://www.youtube.com/watch?v=40MO_jnbqXU – 46 minutes.

Internet and Library Research

Use the following keywords to engage in research on the topic of data integration strategies, which will support completion of the Unit 4 assignment and discussion.

- Data integration strategies.
- Data integration methodologies.
- Approaches to data integration.
- Strategies for data integration.
- Integrating data from multiple sources.

Examples of Integration and Strategy Plans

The following links provide example data integration and strategy plan, as well as data integration strategy diagrams. Please review as examples only, considering the various factors for organizational data integration plans:

- Sherman, R. (2003). [Five essential components of a data integration framework](http://www.information-management.com/issues/20031001/7402-1.html). Retrieved from <http://www.information-management.com/issues/20031001/7402-1.html>
- [Sample data integration strategy](#) (images on Google)

u04a1 - Data Integration Strategy

This assignment covers your data integration strategy and the correlation to the implementation of the data workflow model. For consistency, you should apply these concepts to the organization identified in Unit 2 for which the model will be implemented.

Research and write a 3—5 page paper that covers the following:

- **Data Integration Needs**
 - Refine data integration requirements by reviewing data flows and data sources within the organization.
 - Identify the people and processes in reference to how data flows.
 - Review processes for integrating data.
 - Specifically examine how the data workflow model is part of the data integration strategy.
- **Data Integration Strategy**
 - Identify a specific strategy—that is, the approach to how data will be integrated or how it was integrated (such as iCloud computing or databases).
 - Identify specific tools used (such as road maps or strategy maps).
 - Describe the specific objectives of data integration strategy.
 - Address how the strategy directly addresses organizational needs and data integration processes.
 - Provide a pictorial or diagram of your integration strategy (refer to Sample Images link in the study materials).
- **Data Integration Trends**
 - Discuss the impact of emerging and recent trends on data integration process (such as iCloud use and iCloud computing).
 - Develop an outline of action plans to address emerging and recent trends.
- **Comparative Review**
 - Compare and analyze the elements of your strategy to those found in the required readings or through other research findings.

Assignment Requirements

- **Written communication:** Written communication is free of errors that detract from the overall message.
- **APA formatting:** Resources and citations are formatted according to APA (6th edition) style and formatting.
- **Length of paper:** 3–5 pages, excluding the references page.
- **Font and font size:** Times New Roman, 12 point.

Resources

-  [Capella Undergraduate Resources: APA Citing and Referencing.](#)

u04d1 - Data Integration in "The Cloud"

The Cloud is a buzzword that has become extremely popular in the last few years. In the simplest terms, cloud computing or using the cloud means storing and accessing data over the Internet instead of on a computer's hard drive. Discuss the pros and cons of using the cloud to store data or as part of a data integration plan or process.

Response Guidelines

Respond to at least two other learners and compare your findings.

Unit 5 >> Project Submission and Executive Presentation

Introduction

Throughout the course we've discussed a variety of topics that relate to the management of data integration. Effective data integration management enables an organization to combine data from multiple sources, manage data in multiple places, and transform fragmented data into reliable data. In Unit 1 you were introduced to data integration concepts in relation to legal and ethical issues. Given that data integration involves the combining of data from different sources, and used by different users, addressing legal and ethical issues are essential. It is also important to recognize the concept of data integration in relation to workflow, which was discussed in Unit 2. Data workflow integration can impact organizational processes and act as a catalyst for effective data management processes. We also discussed the extract, transform and load (ETL) process as an effective tool for data integration and workflow.

In this unit, you will explore more on the management of data integration, particularly views from a management perspective. You will complete the final part of your course project by compiling all components and preparing a presentation for the executive management team.

Learning Activities

u05s1 - Required Readings

The required reading contains foundational information on the ethical and legal impacts of data integration and will support completion of the Unit 5 assignment and discussion.

- Stephen, M., & Kleiner, B. H. (2011). [Better data means better decisions](#). *Industrial Management*, 53(4), 22–25.
 - This article can provide ideas for ongoing management for your course project presentation. It discusses the need for managers to have access to accurate data to help them make important decisions about operational efficiency, competition and regulatory compliance.
- Arenas, M., Perez, J., & Reutter, J. (2013). [Data exchange beyond complete data](#). *Journal of the ACM*, 60(4), 1–59.
 - This article provides a review of key factors for data exchange and integration. The author presents a general framework for data exchange and addresses the problem of exchanging information given by representation systems.

u05a1 - Executive Presentation

Consider that your executive management team is meeting to discuss your course project. To prepare for the meeting, create a report and presentation that outlines the project and findings. Your report should be 12–15 pages, and your presentation should be at least 10 slides in length. The report and presentation should generally cover the following:

1. Summary of the project—its purpose and goal.
2. Description of data integration workflow model, with diagram.
3. Reason for recommendation of model.
4. Discussion of data integration tools and methodologies used.
5. Outline of the methodologies and tools appropriate to support your specific organization or case for data integration.

6. Outline of the impact of emerging and recent trends on data integration process and action plans, if applicable.

7. Next steps and ongoing activities.

Submit your written report and presentation. Incorporate changes and feedback provided throughout the course and through the peer review discussion.

Assignment Requirements

- **Written communication:** Written communication is free of errors that detract from the overall message.
- **APA formatting:** Resources and citations are formatted according to APA (6th edition) style and formatting.
- **Length of paper:** 12–15 pages, excluding the references page.
- **Font and font size:** Times New Roman, 12 point.

Resources

-  [Capella Undergraduate Resources: APA Citing and Referencing.](#)

Course Resources

[APA Style and Format](#)

u05d1 - Peer Review

Post a draft of your report and presentation for peer review **by Wednesday**. Outline challenges or areas of concern that you may have. Remember that all assignments are due on Friday, so it is imperative that you post your information and provide feedback to fellow learners in a timely manner.

Response Guidelines

Provide comprehensive feedback to at least two other learners by Wednesday to allow time for completion of the paper by the Friday deadline.

Course Resources

Undergraduate Discussion Participation Scoring Guide

u05d2 - Take-Aways

Explain to your peers and your instructor what you will be taking away from this course:

- What did you learn that surprised you?
- What did you find challenging to understand or grasp?
- What aspects of the course did you enjoy? Which did you not enjoy?
- What would you like to see added to the course for future sessions?

Please read other learners' posts and reply as you see fit. It is required for you to make an initial post, but it is not required for you to respond to your peers' posts.

Course Resources

[Undergraduate Discussion Participation Scoring Guide](#)