

Course Project Overview

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Business Intelligence

Enterprise Data Mart or Data Warehouse for A Contemporary Business Issue

DEVRY University

Objectives

We live in an information era. That means that information is the major source of competitiveness. If we look around carefully, we find that most organizations in the world today effectively and efficiently gather and generate data, process them, produce meaningful information, and effectively use them, catapult themselves into the upper echelons of their respective fields.

The objective of the Course Project is to extract the maximum value from data that a modern business or organization generates or can acquire to solve a business problem for its growth, survival, or achievement of other major objectives. The ultimate goal of this project is to help stakeholders get the data and information that they need, when they need it, at the place where they need to make informed decisions that result in maximizing profits for a business organization by either increasing revenue, reducing costs, or both or to help a nonprofit organization achieve its altruistic objectives.

Guidelines

The Course Project is a group project. Students will work in groups of two to five. The professor will make the determination about the group formation.

You are a group of business intelligence systems (BIS) consultants. You proactively submit a proposal for creating a BIS for an organization of your choice (prefer to choose an organization from an industry that offers higher probability of career prospects to the group members on their graduation from Keller, or pick up a contemporary problematic issue to build your Course Project on).

The Course Project will be carried out in three major parts as follows.

Milestone #1

This is due in Week 3 and is worth 50 points. It provides the what and why aspects or justification for the BIS project.

Submit a Word document (two to five pages, line spacing 1.0, and font size 12) that has the following.

1. Include a proper title page (do an online search for a sample project title page image and emulate).
2. Identify and describe a real or imaginary organization that is fast growing or struggling for survival or any other organization of your choice that suffers a business problem and can benefit from a new business intelligence system (BIS).
3. List and describe critical success factors for such an organization operating in an environment.
4. Determine information and data needs for such a firm to succeed.

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Milestone #1 must be approved by the professor. If not, groups must modify it as per the feedback provided by the professor until it is approved by the professor. Groups are strongly encouraged to discuss the topic with the professor, as well as seek feedback on drafts before submission in Week 3.

Each group will play the role of consultants to or data experts within an organization. Your professor will play the role of the senior management or users for your business scenario.

Do research and identify a contemporary problem that an organization may be facing that could best be solved using BIS. Run it through the professor and get it approved. If in doubt, seek guidance from the professor.

Milestone #2

Company chosen: FEDEX

This is due in Week 5 and is worth 100 points. It provides how aspects or planning and business analysis of the BIS project.

Submit a Word document (five to nine pages, line spacing 1.0, and font size 12) that covers the following.

1. Search for three successful cases of business intelligence system (BIS) implementations in the same or related industries. Provide brief details of each. Synthesize and summarize the factors that led to the success

of these projects. How can these success lessons be transposed to the BIS project you are planning?

2. Search for different BIS technology solutions available in the market. Select the best solution that will be appropriate for the organization that you have selected. Justify your recommendation.

3. Create a project plan (assume that you already have gathered the BIS requirements through the interviews with the project stakeholders) for the data mart and data warehouse. The project plan will list the chronological steps that are required for the project. Use Microsoft Project (preferred) or Microsoft Excel for making a project plan. Fit the project plan on one page.

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Company
Chosen

Federal
Express

FedEx

4. Design a target database for the enterprise data warehouse design. You will need to determine the following:

- Whose theory will you follow? Bill Inmon or Ralph Kimball? Why?
- What type of data modeling will you use? (Dimensional, etc.)
- Will you use data marts or data warehouse? Why?
- What type of database will you use? (Oracle, Microsoft SQL Server, SAP, etc.)
- What data modeling tool will you use? Why?

5. Choose a tool that you will use for the extract, transform, and load (ETL) process. Some examples are Informatica and Ab Initio. Justify your choice. Give brief information about the tool and the company that makes it. Explore cost information and any special equipment that might be needed to be able to use the tools, such as special servers, and include these, as well.

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6. Choose a tool that you will use for reporting and data mining. Some examples are Business Objects, Cognos, and Microsoft Reporting Services. Justify your choice. Give brief information about the tool and the company that makes it. Explore cost information and any special equipment that might be needed to be able to use the tools, such as special servers, and include these as well.

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Final Project Reports

These consist of:

1. Final Project Report;
2. PowerPoint Presentation; and

3. Virtual Meeting Presentation

The Final Project Report is due in Week 7 and is worth 200 points. It provides in-depth details on the what, why, and how aspects or the detailed steps to be carried out for the design, construction, and deployment of the BIS Project.

Submit a Word document (18–27 pages, line spacing 1.0, and font size 12) interweaving Milestone #1 and Milestone #2 into it at relevant places, or maybe use extra content heads if you cannot do so. The Final Project Report should provide the following items that reflect the learning from this course. (Warning: Do not regurgitate theories but apply theories to given scenarios.)

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1. Abstract
 2. Industry and Company Background
 3. Business Case Assessment
 4. Enterprise Infrastructure Evaluation
 5. Project Planning
 6. Project Requirements Definition
 7. Data Analysis
 8. Application Prototyping
 9. Database Design
 10. Metadata Repository Analysis, Design, & Development
 11. Extract, Transform, and Load (ETL) Design & Development
 12. Application Development
 13. Data Mining
 14. Implementation
 15. Release Evaluation
 16. Recommendation
 17. Exhibits
 18. References
2. Submit the PowerPoint Presentation (about 15–18 slides including title slide) worth 25 points within 24 hours of the deadline to submit the Final Project Report.
3. Submit the Virtual Meeting Presentation, up to 5 minutes per group member and worth 25 points, within 24 hours of the deadline to submit Final Project Report. Note that the Virtual Meeting Presentation grade will be individual grades, meaning that everyone in the group may not get the same grade, unlike all other components.

Grading Rubrics

Category	Points	%	Description
Complexity of the Topic	50	20	The topic is challenging and the solution is creative.
Content	150	60	The coverage of all the relevant aspects of the BIS project is complete. Contemporary examples and tools are used for the project.
Organization	50	20	The contents are in logical order. The contents are properly subdivided and subtitled.
Total	250	100	A quality paper will meet or exceed all of the above requirements.