Milestones

Milestone 1 - Project Proposal

Groups submit project ideas for approval

a. Title of your project (include full name and e-mail address of all members), the course number and course section.

b. A narrative description of the business the DW/BI project is intended for. This should include a description of the problem or opportunity being addressed.

c. Business Justification (like done in class)

d. Technical Justification (like done in class)

e. Identification of the information needs – what data sources and information would help solve the problem or allow one to take advantage of the opportunity. Include an initial list of KPI's your group will use to address the issue or opportunity.

f. Informal discussions with the professor can help to refine the project and proposal.

Kimball Lifecycle Template: example

Milestone 2 - Final Dimensional Model

1. Final list of KPI's

2. All data sources identified

3. Dimensional Model started. Initial list of dimensions and facts that have been identified. This should come naturally from the above discussions. For a group project, I would expect a project to contain at least 5 dimensions and 2 fact tables. (these are your datasets)

   a. This may be done with Lucidchart.com if easiest.

Milestone 3 - Completed ETL Pipeline

1. Source code OR screenshots of application used during ETL

2. Location and size of your datasets

3. Explanation of each step of ETL process, and why you chose to do it that way (prepare to defend your method, think about ways it could break)

4. Overview/Picture of your Data Warehousing Project

   a. With the ETL complete, what does it look like? Data Sources to ETL to where?

Milestone 4 - BI Dashboard Foundation

1. Goal: Create a dashboard application that displays at least 3 different data representations (example: a table, heatmap, and chart). This may be implemented in a BI tool like Tableau.

2. At this Milestone, you must connect your Data Warehouse to a BI tool and show at least the foundation of one of the data representations described above

Milestone 5 - Final Project and Report

1. A separate cover page listing the course, group member's names and project title.

2. An introduction section similar to the proposal section including the narrative description of the business or organization used for the data warehouse being created and description of the source data. Be sure to include appropriate citations of each data source (web site, curator, date accessed, etc.)

3. The dimensional model diagram.

4. A description and screen pictures of each of the ETL processes.

5. Screen shots and brief descriptions of the final schema that the business analytics tools are working with.

6. Screen shots and descriptions of the analytics (at least 3) on the dashboard application developed based on the data warehouse data.

7. Descriptions of the tools (databases, analytics, ETL, programming languages, etc.) used to complete the project.

8. A narrative conclusion section that describes:
   a) the software and database tools the group used to coordinate and manage the project as well as carry out the programming tasks (list of bullet points with software or service and one sentence of what it was used for)

   b) the group's experience with the project (which steps were the most difficult? Which were the easiest? What did you learn that you did not imagine you would have? if you had to do it all over again, what would you have done differently?)

   c) if the proposed benefits can be realized by the new system.

   d) any final comments and conclusions

13. A References list that provides the websites and other sources for data, techniques, methods, software, etc. used to complete the project.