

M1 Deliverables

Motivation:

This milestone is our "preparation step". In a real world project, (hopefully) there would be processes for planning and infrastructure already defined by the organization and also additional planning, resource allocation, training, etc. being done. When Launching a project, we always establish (communicate and document) the team policies. For our purposes, we will be doing some minimal development process / team etiquette documentation along with some tool exploration to help the later milestones run more smoothly.

THIS IS A REAL PLAN. In other words, this defines what you will **actually use** on the class project – **NOT** a mythical system that you would use in our mythical organization. Emphasis here should be placed on trying to strike a **balance** between "**keeping things simple**" and "**using our resources to the best of our abilities**". It is important for each team to understand the communication / collaboration mechanisms, each other's expectations, etc. Part of this includes a minimal amount of "standard formats" used to capture information, and a common toolset. Part of this also includes a **documented description** of how team members will coordinate their work to ensure that everybody is in sync.

Metadata is important to the health and well being of any data warehousing project. Metadata is the entry point for much of the information quality (as well as knowledge and wisdom) that our system will have. As we will discuss in the lecture on "Data / Business Information Quality", there are many factors and facets involved when trying to ensure good quality and certainly most of those activities and tools are beyond the scope of our class project (e.g., we are not going to form quality teams, or try to develop any business process reengineering activities for our mythical enterprise, we are not going to implement a "Repository"). Having said all that, it is important to address metadata in our project since it is such a vital part of any real effort in data warehousing.

Since there is no standard tool available to us (or in existence really), we will not have the ideal metadata management facility that we would like to have. In an ideal environment, much of the metadata would be automatically captured, transferred, and controlled – but even then most of the "Business Metadata" would need to be manually captured and entered. For our project (like many real world projects) we will try to "get the most we can out of our existing tools" for metadata management. In other words, although we have not discussed metadata yet, after we have discussed it in some of the lectures, we will do some MINIMAL metadata management to get a flavoring of it in our project – and this will most likely utilize simple MS Office tools like MS Excel, MS Word, the database (SQL Server or any other we have access to), etc.

Since we will be using several tools in later project milestones, it would also be appropriate in this "planning / launching / project preparation" milestone to explore the tools and learn more about them by reading the help files / tutorials and also by using them. See deliverables for this milestone on following pages.

Deliverables for Milestone-01

A. Deliverable-1: Tool Policy for YOUR TEAM

Explore the available tools that we will be using in later milestones. **Become more familiar** with their notation, terminology, and abilities. Read parts of the online help and tutorials and / or surf the web to find out more about them. **Spend some time in the lab or at home / work experimenting with the tools.**

In particular:

- We will **NOT** use PowerDesigner—see the software installed in the lab for version details. **NB (Note-Well):** We will discuss how we can minimize our dependence on any particular data modeling tool we choose to use. At a minimum, we need to be able to "draw" ERD for conceptual model and capture the metadata for our MDM (e.g. spreadsheets or databases).
- We will use PDF files for documentation, tracking, and reporting—you are free to use whatever "office" tools you like for this purpose—**always** submit **both** the raw tool files (e.g. "office" or data model files) and the PDF files with your deliverables.
- We will use Excel in Office for Pivot Table reports in M4.
- We will use Microsoft SQL Server 2012 for most of the data and information services. In other words, things like:
 - SQL Server Management Studio
 - SQL Server Database Engine / Server
 - SQL Server Data Tools [also known as—aka: "BIDS"]
 - SQL Server Analysis Server (aka "AS")
 - SQL Server Integration Services (aka "SSIS" or its older name, "DTS")

More details on how to use these tools will be made available as the project progresses, but for now, you can certainly start by looking into the tool documentation, and perhaps the tools.

If you have any problems, questions, or issues with any of the tools,

- PLEASE ASK ABOUT THEM BY POSTING to the "Instructor Project Discussion" forum under your "per-team-group's" discussion area once it is setup.

WHAT TO DO for M1-Deliverable-1:

Please spend some time on this; then write this up, to be turned in. You can look at things as a team or individually spend time with the tools, but write up a simple summary of what the team collectively did:

Merely identify the tools that you looked at / what you did / which tools you'll be using. One or two paragraphs should be sufficient, don't feel the need to go overboard on the write-up for this, but please spend some real time on the exploration!

B. Deliverable-2: Communication Policy for YOUR TEAM

Communication and coordination are important. Simply **documenting** the policy for this is an important step to improve communication and the overall team experience. This does not need to be overly elaborate or complex – just use common sense and be practical about the level of detail.

Under your per-team group page, I will setup three discussion areas.

- One is for discussions between the instructor and the team.
 - This forum is called something like "Instructor Project Discussion".
 - This is the place to post questions to the instructor about your team's specific project.
 - It is also the place for instructor responses to questions and feedback on milestone deliverables.
- Another is available for the team to use (or ignore) as they see fit for version control.
 - This forum is called something like "Version Control Discussion".
 - This can be used to help the team communicate or capture details about changes to the various files created and modified by the team. You can use this for VCS, change control, scope management, etc. (or you can ignore it completely).
- The third is available for the team to use (or ignore) as they see fit for general communication.
 - This forum is called something like "Student Project Discussion".
 - This can be used for any communication between the team members that does **NOT** need any interaction from the instructor.

For this deliverable, simply come to a consensus about which communication mechanism you will use as the primary mechanism (e.g. the BB "Student Project Discussion" forum, UST email, etc.) and a general approach to collaboration (e.g. does everybody work remotely and use the BB to share files, or does everybody meet at school on a particular day / time). It is usually a good idea to plan some sort of **regular schedule or frequency** for communication and / or collaboration (e.g. "we plan to check emails once a day" or any schedule agreed to by the team). Similarly, if you plan to meet as a group, agreeing on a minimum number of meetings and some plan for the day of week and time of day are useful – whether that meeting is physically on campus or virtually using the on-line chat and virtual classroom facilities in BB or some similar mechanism.

WHAT TO DO for M1-Deliverable-2:

Please document this:

Again don't go overboard, just be practical, and use some common sense as to the content and level of detail required. Make the document useful, it is intended to help all the team members stay aware of the team's expectations and methods. A simple paragraph or two is probably sufficient.

C. Deliverable-3: Version Control Policy for YOUR TEAM

It is a good idea to **document** the general strategies / processes / procedures you will use to manage work products for this project (documents, spreadsheets, diagrams, databases, the various files created by the various tools, etc.). Be sure to consider things like version control, notification of updates, and any review processes. Just like Deliverable-2, this is a **real** plan and subject to change, but the intention is to make sure that all team members know the expectations and mechanisms. Obviously in a real world environment, the size of the team would be **much larger** and probably be more diverse / distributed but for this project, the description and details required here do **NOT** need to be elaborate or complex, merely **adequate** for the actual project team members.

As mentioned in the previous section, there will be a "Version Control Discussion" forum under your per-team group page. You can choose to use this or to ignore it as you see fit. There are many version control systems (VCS) available for free; on campus we have installed git. You can use any such tool (or no tool) provided the team is in agreement. There will also be a File Exchange area under your per-team group page that you can post files to in order to share files as a team as you work on the project. If you use File Exchange, I recommend using 7-Zip to post all interrelated files together and conserve space, but for simple and small files this is not necessary. Although the File Exchange Area can be quite useful for sharing files, I **STRONGLY** suggest that you also define a strategy for keeping an official, OFF-LINE, backup (using a CD / DVD / USB drive or some other computer at home or work). Also, you should remove OLD versions periodically from the file exchange (it is not the place for real version control, merely release management).

Simply having a plan in place is an improvement to the chaos that can ensue when different team members make different assumptions in the face of parallel development. Things like having a standard naming convention, and agreement on a general policy for preventing versioning issues is always a good idea. This is part of the foundations we set for software configuration management (SCM); for example, documenting when / how names and versions change for files, or documenting how team members know WHO is editing a given file at a given time, etc. I recommend you develop a simple and useful naming convention, e.g. using a version number "M2_ver2.doc" or date-time stamp (use zero-padded values and 24-hour times) e.g. "M2_2013-10-05_20-30.doc" (8:30 pm).

WHAT TO DO for M1-Deliverable-3:

Please **document** this:

A few paragraphs / half page to 1 page should be sufficient. Include the decisions for how files are to be managed in the face of parallel work, multiple versions, official "backups", etc. Similarly, your write-up should consider how the team will keep track / be notified / be aware of things like, "what changed in this version?" etc.

D. Deliverable-4: Task Policy for YOUR TEAM

It is a good idea to **document** the general strategies / processes / procedures you will use to manage work (activities, tasks) for this project. Just like Deliverable-3, this is a **real** project management plan and subject to change, but the intention is to make sure that all team members know the status of each task (complete, in progress, not started, etc.), a rough idea of the effort and schedule, and the task owner (person responsible) for each task. Obviously in a real world environment, the size of the team would be **much larger** and probably be more diverse / distributed but for this project, the description and details required here do **NOT** need to be elaborate or complex, merely **adequate** for the actual project team members.

You can choose to use "dedicated project management software" for this, but I would recommend against it since the overhead might be more than the value. Instead, I would suggest that your team could create a simple spreadsheet format, and use version control to reflect the updates in progress or changes to the baseline. We will be doing "just in time" planning, in the sense that we cannot plot all the work for all milestones at the start. Therefore, for milestones 2, 3, and 4, you should include the documented task plan (task breakdown with estimated effort, actual effort, completion status, task owner, etc.).

The goal is to keep this as up-to-date and as low overhead as possible, while working on the milestones.

WHAT TO DO for M1-Deliverable-4:

Please **document** this:

A few paragraphs / half page to 1 page should be sufficient. Include the initial format for the spreadsheet(s) or a description of the tools / template that will be used. Similarly, your write-up should consider how the team will keep track / be notified / be aware of things like "has the plan changed", "who is working on a given task?", "when does a task need to start or stop", "what task(s) depend on each other / what is the required order of completion", "what is the completion status for a given task?", etc. Again don't go overboard, just be practical. Use some common sense as to the content and level of detail required. Make the process and capture useful, it is intended to help all the team members stay aware of the team's expectations and schedule.

E. Deliverable-5: Liaison for YOUR TEAM

Your team will identify / elect one member to act as liaison to the instructor. While **ALL** team members are encouraged to discuss the project with the instructor, I need an official person designated to turn in the deliverables for the milestones. This way I do not need to contend with confusion from multiple submissions from the same team. Also, when I need to inform the team of something, I will usually post things to the Blackboard; but if additional effort is required on my part, I will contact the liaison and they will be responsible for ensuring that all team members are aware of the details. (Again, this really means ensuring that all team members check email / discussion boards / voice mail whatever communication mechanism your team is using, and then forwarding the message.)

The liaison:

- is **NOT** the only person to work on the deliverables.
- is **NOT** the person who has to write, type, or draw everything.
- is **NOT** the only person preparing or delivering the final deliverables.

The team should be capable of sharing the responsibilities and activities equally and fairly. The liaison is intended to ensure that communication within the team and with the instructor is working.

WHAT TO DO for M1-Deliverable-4:

Please document this:

Write a single sentence stating which team member will be the liaison. I don't need any further contact info since I will post to the BB or send emails to the liaison's UST account if I need to contact the team.

Final packaging for M1 submission:

WHAT TO DO for Final M1 submission:

Create a separate PDF document for each deliverable (1-5) and give each document a clear and meaningful name that includes the team number, milestone and deliverable part. For example, "T01_M1_D1_Tool_Policy.pdf" is a good name for the Team-01, Milestone-1, and Deliverable-1 document.

Create a SINGLE manifest file named "README.txt", which lists all the filenames included in submission along with a brief description of what each file is or what part of the milestone it is for.

Use 7-Zip to bundle all deliverable files (i.e., the README.txt, each of the individual PDF documents, and any supporting files) into a SINGLE ZIP FILE named using the following naming convention:

Team_01_M1_FINAL_Deliverable.zip. Please create a ZIP file (not a RAR, .z, or other format).

Please use the exact naming format mentioned, please use the ZERO PADDED team number if it is under "10" – i.e. it is two-digits for ALL TEAMS.

Before the start of the lecture in which it is due, submit the zip file to:

COURSE MATERIALS>

ASSIGNMENTS >

PROJECT MILESTONE TEAM SUBMISSIONS>

M1

DO NOT PRINT ANYTHING!

DO NOT TURN IN ANY HARDCOPY FOR THIS MILESTONE!

DO NOT FORGET TO SUBMIT!