

CIS 220 Database Concepts

Group Assignment: Initial Study and Analysis

Thoroughly read the provided **Database Development Life Cycle** document, paying close attention to sections 1.2, 1.3 and 1.4. This particular assignment would fall under the following description

Analysis starts by considering the *statement of requirements* and finishes by producing a system specification. The specification is a formal representation of what a system should do, ***expressed in terms that are independent of how it may be realized***. The aim of analysis is to obtain a detailed description of the data and processes that will suit user requirements so that both high and low level properties of data and their use are dealt with.

You should strive to keep this analysis as ***non-technical*** as possible. Don't worry about tables, entities, relationships, database servers, programming languages or any other technical detail.

Do not mention these in your work at all. Focus on the data requirements and the scenario

Analyze the data requirements, not the implementation

One of the hardest issues facing an analyst is to perform the analysis without prejudging decisions about implementation. The analysis is purely focused on the data requirements and not about how those requirements are to be met, or the limitations that might be enforced by the DBMS chosen to host the database. Compromises and enforced limitations resulting from a particular DBMS or computer system should be dealt with during the implementation phase. The requirements gathering and analysis tasks should be performed as if the implementation environment will do everything that needs to be done to satisfy the requirements being specified. Any compromises made at the analysis stage will affect the usefulness of the database and may lead to it failing to meet the user requirements.

Your first group assignment is to prepare an **Initial Study/Analysis Document** for your project. This document will be used as the first section of your final project documentation and will consist of a ***non-technical explanation*** of the overall goals for the project. This document should **thoroughly** describe the project you have selected, providing the following details:

- Table of contents
- A brief description of your project group. Introduce each of the members and establish some sort of corporate identity: name and logos are nice touches. Please make all attempts to create a professional looking document. Proper grammar and syntax are crucial to making an impressive first impression. Pretend that I am your client and you are attempting to woo me over with your thorough understanding of the needs.
- A description of the business or organization or concept/idea you are building the project for.
 - Where is it located?

- What is the purpose of the business?
- How big is it?
- If your project is for a fictional business or for personal use, certain assumptions will have to be made. You will have to provide the necessary background to establish the context of the project. You will have to play the role of client in this situation so that any questions that arise can be answered quickly.
- **User Requirements:** Gather an initial list of user requirements
 - Who are the users? How would this system benefit their work?
 - What high level functionality do the users expect? What do they want to be able to do?
 - Blank Sample Forms. Are there any forms or documents that could assist in identifying data needs? How the data is currently tracked. Can you provide some examples? The more details the better. I need to fully understand the scenario so I can be of service.
 - Interview answers. Can you interview any of the potential system users? Email exchanges?
 - If your “business” is fictional you will need to provide all the details yourselves. Please be as thorough as possible. Provide examples of any possible use cases you can imagine. I would like to feel that I understand all of the data and processes that need to be tracked and how you would like to use said data.
- **Use Case Scenarios:** Come up with a series of Use Case scenarios that describe how system users would interact with your proposed system.
 - <http://www.agilemodeling.com/artifacts/useCaseDiagram.htm>
 - <https://about.draw.io/uml-use-case-diagrams-with-draw-io/>
- A description of the current system used for a database, **if any**. If there is no database in use, **how does the business keep track of their data?** What hardware and software are currently in use?
- A description of the problems with the existing system. What are the reasons for building a new database?
- A definition of the objectives and scope of the new system your group will build.
 - What will your project accomplish?
 - What are the limitations/assumptions you will work under?

You may need to make a visit to the actual business you are building the database for to determine some of this information. Your team might go as a group or send one or two team members to go. If you do interviews, make sure this is reflected in the study document and by all

means take notes at the meetings and post them in the team area (or any collaborative cloud-based services that your team employs). Obviously this is impossible for a fictional idea.

Your document should be word processed, spell checked, proofread, and well formatted. Expend effort to create a professional looking document; one that you would be proud to show your boss (Imagine me as your boss in this scenario). The document should include a title page that contains the name of the project group as well as a list of all group members. Use a 12-point font of your choice, with 1” margins, and number the pages of your document, please. It is important that your final document look and sound professional.

The study must be submitted as a PDF document

If you would like my feedback **before you submit** just let me know. It is probably a wise idea! Send me an email or contact me on Discord if you wish for me to look anything over. Give me ample time before the due date to respond. 5 minutes before it's due will not work.

Submit only the final version of your Initial Study Document here by the date due. If you have any questions, please let me know. You will be graded on the following criteria

1. How well did you follow the instructions?
2. Is the document professional in appearance?
3. Is the document grammatically correct and error free?
4. How thorough was the write-up? Were any obvious questions left unanswered?

Important: Submit only one Initial Study Document per group. The name of your document should reflect the name of your project team. Attach the document as a PDF and submit via Brightspace.

I will not review multiple versions of a document for a single group!

Each member is required to participate.

I have also attached an example of “A” work from a previous semester. This document is beautiful and thorough. The only thing it is missing is the Use Case Diagrams. **Do not forget this!!**