IS 436   Structured Systems Analysis and Design
Deliverable 4 – "Data Modeling and Starting Design" (D4) –

Overview

Now that you have the process models, you can continue to create the data model. After this step, you will consider the alternative design strategies and create the architectural design of your system.

Details

1) Develop a data model by drawing an Entity-Relationship diagram using Visio, Lucid Charts (or any drawing tool) The model **will be accompanied** by a textual description of entities and relationships. The diagrams should closely follow the notation. Make sure that the model is in the third normal form.

2) Develop an alternative matrix for your project. You must also provide a **description** of each of the alternatives that you have chosen. Each member of the team will rate the three alternatives independently. Include each individual matrix with the deliverable. The team will then come together on a consensus, creating a team matrix. Include this team matrix with the deliverable. **Provide a narrative** for the justification about which alternative was picked by your team.

3) Design the architecture of the system by to **developing a matrix** . In its rows, this matrix should clearly list the non-functional requirements of your project under four main categories: Operational, Performance, Security, and Cultural/Political requirements. In its columns, the matrix should include the architectural options (i.e. server-based, client-based, thin-client server, thick client server). If a particular architecture is good for any requirement put a check mark in the corresponding matrix cell. This matrix should be accompanied by a narrative that talks about why particular architectures are a good fit for particular non-functional requirements. Based on this matrix**, make a decision of the system architecture and explain the justification**.   Mention the trade-offs and the reasoning behind your decision. After that, develop a **Hardware and Software Specification**. Note that your specifications can include different server and client configurations.

4)) Include your updated project plan.

5) On Kanban board assign the requirements to your team members

Your report should include a cover page that clearly shows the group name, student names, class name and code, deliverable name, and the date. All pages should be numbered. The editors should ensure the overall consistency and completeness, and correct any spelling and grammar error.