

COMP 361 – Assignment #3
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Part A: Design Class Diagram, Sequence Diagrams and Use-Case Description

see “DCD – First Cut.jpg” for first-cut design class diagram for all use cases.

*Note: I added an operation called "operations()" to each class to signify that space has been added to include them for the first-cut diagram, but they have not been added yet.

see “Sequence Diagram – First Cut.jpg” for first-cut sequence diagram.

see “Sequence Diagram – Make Res thru Web.jpg” for multilayer design sequence diagram.

see “DCD - Updated.jpg” for the updated design class diagram for all use cases.

Part B: Essay Question

What is the difference between systems analysis and systems design? In order to answer this question, first discuss what the aims of each of them are and how these aims are achieved. Then discuss how they are related to each other and how they are different from each other.

According to the textbook systems analysis is "the process of understanding and specifying in detail what the information system should accomplish [1]." The text also has a definition of systems design: "[It is... the process of specifying in detail how the many components of the information system should be physically implemented [2]." Each one has its own aims and ways of achieving these aims.

Systems analysis is concerned with the system as a whole and what the system is intended to do. The aim is to produce a system that satisfies the business needs and user functions that the client requires. This requires careful analysis of business practices and user needs, hence the name. To discover these details, an analyst must gather information. This usually involves examining business documents and procedures, as well as interviewing and consulting the potential users of the system. This process also requires analysts to have good business knowledge and communication skills.

Systems analysis is contrasted and complimented by systems design. The aim of design is related to the physical manifestation of the actual system. This includes everything from the act of programming classes and methods, to implementation of server and database hardware. To achieve these aims, systems analysts must use the

information gathered from systems analysis to begin planning the physical system. Then they must look at the computational needs of the business as well as the budgetary constraints. Design also requires technical expertise in areas like programming, database design, and network design, among many others.

Part C: Reflection

Well this assignment was tougher than I imagined when first looking at the requirements. Designing diagrams for the first time never seems to be easy. There are so many things to consider, and it is tough to know if you have included everything you need because there tends to be so many details. In the end, I based all my models very closely on the textbook, because I know that those are good examples to be following.

I am currently using Visual Paradigm for my UML modeling work. I have never used this software, or even heard of it, before taking this course. Not only do we have to learn all the requirements of the study guide, but we have to learn new software too! This can seem daunting, but there is a lot of help on the Internet, so do some searching.

One thing I learned is that the free version of Visual Paradigm only allows one instance of a diagram type, before it will add a watermark to the exported .jpg files. This is not only for the diagrams that you have made more than one of, but for all diagrams once you have made a multiple. I found this rather annoying, but the way to get around it is to copy the contents of the entire diagram into a new project. Then you can make a .jpg file without the watermark. It's not a big thing to worry about, as you can still see the diagram details with the watermark in place, but I personally found it to be very ugly and unprofessional looking.

Overall, I did find this assignment easier than the first two I completed. I am getting more familiar with the project details, and I am becoming more familiar with modeling and thinking about the system like an actual analyst (I hope!). I encourage everyone to keep trying and not get bogged down in the details.

Do your best and good luck on Assignment 3!