

Assignment: Software Design

Use Case, Class, and Sequence Diagrams

Objective: Develop software designs of various perspective for the product.

So far we have been focused on the WHAT of our software product. It is time to start thinking about the HOW part, which involves design. For this purpose you will prepare:

1. Use Case Diagram – that shows the interaction between users and the functionality they may perform.
2. Class Diagram – that identifies the classes and the relationships among them.
3. Sequence Diagrams – that specify all key use cases using the classes that you designed.

Recall that, each sequence diagram must include a reference identification as well as a clear title and description. Furthermore, the users, objects and the messages you refer to must be consistent with the use case and class diagrams.

Make sure you clearly label any arrows you use whenever applicable (i.e. messages, data, <<extends>>, <<includes>>).

You may refer to lower level diagrams from higher level diagrams of the same kind.

Remember that these diagrams enable you to think through your solution as well as clearly communicate them. This means that you should be able to read and understand the proposed designs as well as discuss them.

You may use tools that support UML Diagrams, such as lucidchart (<https://www.lucidchart.com/>) service for creating UML diagrams (it offers free accounts with your university email), argouml (<http://argouml.tigris.org/>), or UMLet (<http://www.umlet.com/>).

Like all artifacts related to your project, your designs must be put in your project repository.