Lab #4 – Requirements Analysis: Behaviour Models

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SOFE 2720 Principles of Software and Requirements Engineering
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Objective

In this lab you will focusing on the refinement of requirement through the capture of dynamic behavior specified in the requirements. This lab focuses on interaction and state models that are used to capture the dynamic behavior of a software system.

A. Pre-lab Preparation

This lab follows along from the previous labs with the specification of the dynamic behavior of the lab software project using sequence and state models.

- Review the static model of your system (from Lab 3) prior to commencing this lab.
- Review UML sequence and state diagram notations and semantics.
- Review any tutorial notes on the UML modeling tools used in the course, in particular tutorials on the specification of sequence and state UML models.

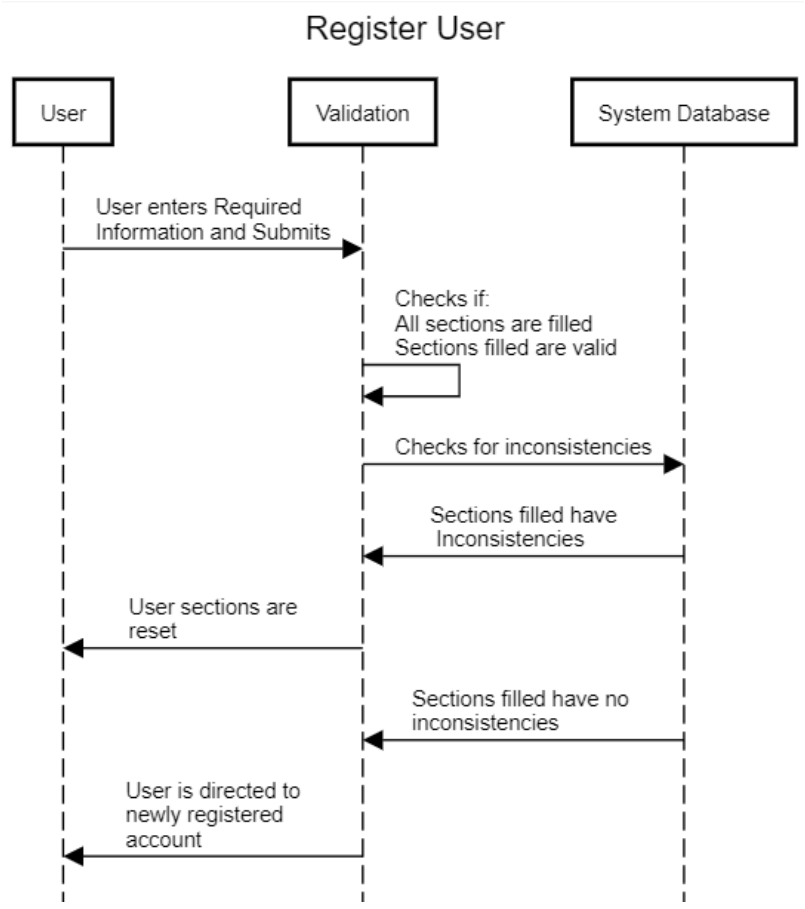
B. Interaction Design using UML Sequence Diagrams

B.1 Sequence Diagram Lab Deliverables

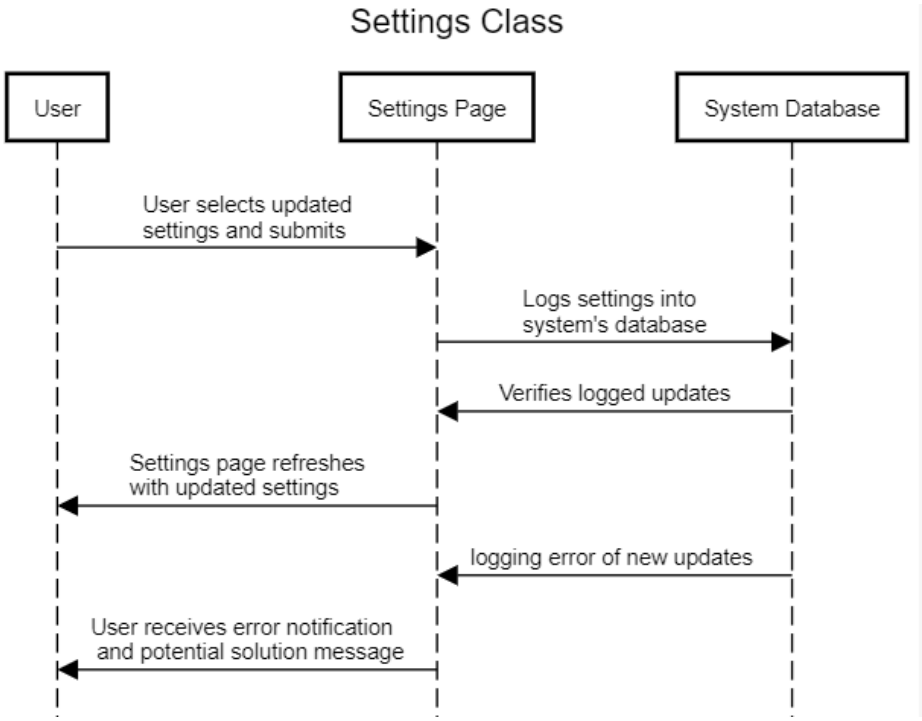
To do:

1. Choose a particular Use Case from Lab 2 and create a system level sequence diagram for your project and include it in your submission.

Register Use Case



2. Create a class level sequence diagram based on the system level sequence diagram that incorporates those classes defined in Lab 3. Include it in your submission



C. Designing behavior based on state-based design

C.1 Lab Deliverables To do: 1. For the principle class of your project (this will typically be the class that all other classes interact with and most of the control logic of the project) design a state model to capture the principle behavior of that class. Include this in your report.

Principle Class - *Account Class*