

LI Software Engineering and Professional Practice and Building Usable Software (34257, 34208, 34258, 34210, 34206, 36987)

Unit 2: Light Introduction to Requirements Engineering
Unit 3: System Modelling and UML Introduction

October 17, 2022

1 Activity

Read the description of the **SmartBank** system below.

It is an online banking system that allows the customer to perform all the available actions through an ATM screen. The system can also be accessed by bank staff to perform the actions through cashiers. The system should provide basic operations such as deposit money, withdraw money, transfer money and agree to make loans to their customers. The bank cashiers can create new bank accounts to customers, search for customers' accounts, update/view customer personal details and close customer's bank account.

Exercise 1. Read the description of the SmartBank below. Draw a system-level use case diagram that depict your entire system, including actors, use cases and relations. Make any assumptions where appropriate and list them next to your diagram for clarity.

Exercise 2. Draw a detailed use case diagram just for “Cash Withdraw”. Then write a use case specification for it, by following the structure of “use case name, actors, pre-conditions, basic flow, post-conditions, alternative flow, etc.” as shown in the lecture.

Exercise 3. Draw a first-cut class diagram for SmartBank, using noun-verb analysis. Some assumptions are made:

- No joint account or shared loan.
- Each loan application is managed by one cashier.