Question 1

Draw a class diagram in papyrus with proper relationships, attributes, and multiplicity, and also generate java code of the following scenario:

Consider an Appointment Scheduling System that facilitates appointment scheduling between a client and a service provider. Service provider specifies the services (s)he offers and the corresponding venue and availability hours for the specific service. Client requests an appointment with the service provider by selecting the service and available time-slots and provides the necessary contact details. System resolves any scheduling conflicts in case multiple clients select the same slot simultaneously. Once the appointment is confirmed, system notifies the client through email. Client may also choose to be notified through SMS while making the appointment. Any subsequent changes in the appointment (e.g. possible rescheduling, cancellation, etc) are also notified accordingly. Service Provider can specify templates (message layouts) for sending Email and SMS notifications. Email template supports rich text editing whereas SMS template only supports plain text.

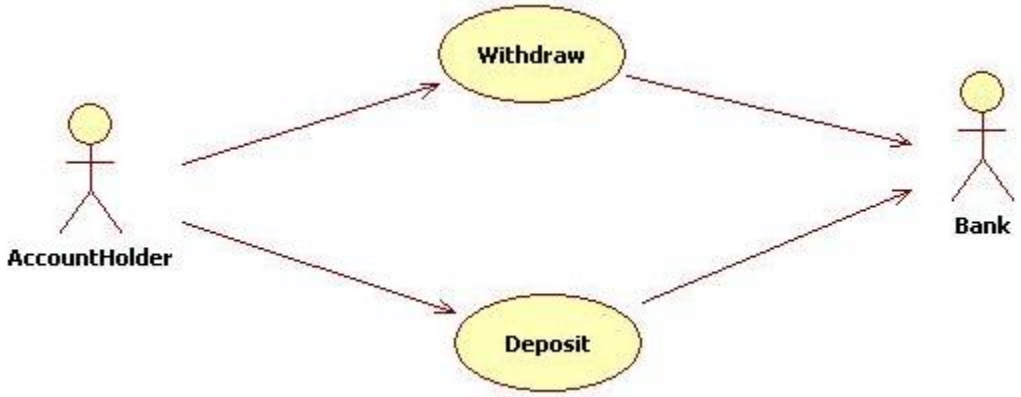
Question 2

Identify the entities, controllers and boundaries and draw a ECB pattern diagram for any one of the given scenarios:

The ATM of Bank Al Habib allows its account holders to make deposits and withdraw funds from any accounts held at any branch of Bank Al Habib. Each ATM machine has a card reader, a cash dispenser, a terminal(keyboard & display), and a deposit slot.

The ATM system validates the provided card and pins from the bank database.

Before the withdrawal transaction must be approved, the bank system determines that sufficient funds exist in the requested account, that the maximum daily limit will not be exceeded, and atm determines there are sufficient funds available at the local cash dispenser. Similarly, before the deposit transaction proceeds; the atm system determines whether the entered amount figure is correct to the amount written on the check. This is the simple use- case diagram for the scenario.



OR

The Customer clicks the Log In button on the Home Page. The system displays the Login Page. The Customer enters his or her user ID and password and then clicks the Log In button. The system validates the login information against the persistent Account data and then returns the Customer to the Home Page. Alternate Courses If the Customer clicks the New Account button on the Login Page, the system invokes the Open Account use case. If the Customer clicks the Reminder Word button on the Login Page, the system displays the reminder word stored for that Customer, in a separate dialog box. When the Customer clicks the OK button, the system returns the Customer to the Login Page. If the Customer enters a user ID that the system does not recognize, the system displays a message to that effect and prompts the Customer to either enter a different ID or click the New Account button. If the Customer enters an incorrect password, the system displays a message to that effect and prompts the Customer to re-enter his or her password. If the Customer enters an incorrect password three times, the system displays a page telling the Customer that he or she should contact customer service, and also freezes the Login Page.

Important Note:

1. Last date of submission is **Monday, 24th October 2022 – 11 AM.**
2. For any late submission (one week late) penalty will be deduction of 0.5 marks each day.
3. After that one week, no submissions will be accepted and you will be marked straight zero.
4. Students are required to submit the assignment individually.
5. Plagiarism, if detected, will result in zero marks.
6. Assignment must only be submit via slate or google form or what so ever instructed by the teacher.

7. Submit the assignment after making a single zip archive of the assignment files. Submit in "zip folder only" no rar, no any other format is accepted.
8. Folder hierarchy: MS Word document reports in /doc folder, generated source code in /code folder (if any), all exported PNG diagrams in /dia folder and Papyrus models and project files in /model directory are required. Use only Papyrus for modeling and submit the project files.
9. Archive the assignment and name it "FASTAssign02YourRollNo.zip"
10. Cover Page of Assignment document must contain: Student name, Roll no, Date of submission.
11. There is only one submission allowed.