**Asynchronous Activity**

***LO1:*** *Demonstrate understanding of the concepts and basic principles of system development to meet client/community requirements.*

***LO2:*** *Produce a set of documents and models for a new system by applying fact finding, problem solving and object-oriented analysis modelling techniques and by using appropriate software tools.*

**Instructions**:

* Naming convention for the document is “**StudentID\_FirstName”**.
* Submit your Work through the link provided on Moodle in current week.
* Your attendance will be considered based on your submission.
* Don’t plagiarize and do your own analysis.

Create a use-case narrative for:

1. the ‘Log-in to ATM’ use case. Use the systems analysis use case template given below. (30 minutes)

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| **USE CASE NAME:** | Log-in | | **USE CASE TYPE** |
| **USE CASE ID:** | ATMUC-01 | | **Analysis Usecase: 🗹** |
| **PRIORITY:** |  | |  |
| **SOURCE:** |  | |  |
| **PRIMARY ACTOR:** | Bank Customer | | |
| **DESCRIPTION:** | This use case describes the process used by a bank customer to log into an ATM. | | |
| **PRE-CONDITION:** | The ATM system is operational and the message ‘Welcome’ is displayed. | | |
| **TRIGGER:** | The bank customer inserts their card into the ATM. | | |
| **TYPICAL COURSE** | **Actor Action** | **System Response** | |
|  |  | **Step 1: System displays the welcome screen** | |
| **OF EVENTS:** | Step 2: The customer inserts their card | Step 3: The system verifies the validity of the card | |
|  |  | Step 4: The system asks for the PIN | |
|  | Step 5: The customer enters their PIN and presses the ‘log-in’ button | Step 6: The system reads the PIN | |
|  |  | **Step 7: The system verifies the PIN** | |
|  |  | Step 8: The system locates the customer object | |
|  |  | Step 9: The system displays the main menu with the set of available options for that account | |
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| **ALTERNATE COURSES:** | Step 3a: If the card isn’t valid, the system displays the ‘Invalid Card’ message, ejects the card and terminates the use case.  Step 3b: If the card is expired, the system ejects the card and displays the message ‘Card expired, please contact your bank’. | | |
|  | Step 7a: If the PIN is invalid, the system displays the message ‘Invalid PIN, please try again’. If the PIN is incorrect after the 3rd attempt, the ATM eats the card, informs the customer to contact the bank and terminates the used case. | | |
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| **CONCLUSION:** | The use case concludes when the menu with options is displayed on the ATM. | | |
| **POST-CONDITION:** | The customer object is available to other use cases (e.g. ‘Withdraw money’) | | |
| **BUSINESS RULES** | After 3 incorrect PIN entries the cardis kept by the system. | | |
| **ASSUMPTIONS:** | The ATM is fully operational, and the customer has knowledge of their correct PIN. | | |
| **OPEN ISSUES:** | How to handle lost or stolen ATM cards.  Methods for improving PIN recovery processes. | | |