

**LAB 03 : Use case 1**

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**Objectives of this lab assignment**

1. Student will be able to use use case diagram to model the given system
2. Student will be able to reverse the given system to the use case diagram
3. Review question
   1. Which of the following could be actor? Give short reasons to support your choice.

\_X\_ P’ ELF ………P’ ELF is considered as an object of TA actor…………

\_X\_\_Department of Software Engineering ………It considered as an object in Department actor……….

\_/\_\_Supply ………it can be actor if we talk about industry application….

\_/\_\_Supplier ………it can be actor if we talk about the investor application

\_/\_\_Customer ………it can be actor if we talk about ecommerce application

\_X\_\_Data Entry Clerk ………It very specific, it should be object instead of actor….

\_/\_\_Database Admin ………It can be actor if we talk about Big application ……….

* 1. Consider convenience store, which is the primary actor for the use case *Buy* between customer and cashier, Give the reason to support your idea.

………The use case buy need to be primary action in customer because customer is only one that spend money on the store and to spend the money I assume that customer need to buy something so that why the primary actor that use buy should be a customer………

1. Case studies 1 : CAMT’s library. (Hint: Go to the website or go to ask the librarian)
   1. How many actor are there? And who are they?

……Student, Librarian, Teacher, ……

* 1. For each actor, what are their possible actions?

………Student and Teacher Can recommend book to library  
………Student and Teacher Can borrow book from library

………Student Can borrow board game from library

………Student Can borrow an oddment from library

………Student Can reserve a study room in library

………Student Can use a computer in library

………Teacher and Librarian can add book to the library

………Librarian can add boardgame to the library

………Librarian can see all user’s data in the library

………Librarian can charge a late borrowed book

………Librarian can reject book from the library

………Librarian, Student and Teacher can see all book in the library

………Student and Teacher can register in the library system

………Student and Teacher can search Book in the library System

* 1. Which of the actions connects actor**s** together?

………Student and Teacher connect to Librarian by BorrowBook use case  
………Student and Teacher connect to Librarian by RecommendBook use case

………Student and Teacher connect to Librarian by Register use case

………Student and Teacher connect to Librarian by SearchBook use case

………Students connect to Librarian by BorrowBoardGame use case

………Students connect to Librarian by BorrowOddment use case

………Student, Teacher and Librarin connect together by SeeAllBook use case

* 1. Diagram

     Description automatically generatedDraw the use case diagram for the library system.

……………………….. (Signature)

1. Case studies 2 :

One day, you have some trouble with reading book. So, you go to buy an eye glasses. At ALMOST BEAUTIFUL OPTICS, the first step is to see an ophthalmologist (eye doctor) who will give you the glasses prescription. Then, you go to select the frame and place order for your glasses. After the glasses is made, you went back to pay the money and pick up the glasses.

* 1. How many actor are there? And who are they?

………Customer, Doctor, Casher, Eyeglasses maker

* 1. For each actor, what are their possible actions?

………Customer can buy eyeglasses you reserve

………Customer can check they eye sign

………Customer can choose the eyeglasses frame you like

………Customer can reserve the eyeglasses you choose

………Customer can see a Doctor

………Doctor and Eyeglasses maker can know eye detail of Customer

………Doctor can summary which eyeglasses is suit for Customer

………Doctor can make an order to Eyeglasses maker

………Casher can check bill of the Customer

………Casher can bring the eyeglasses to Customer

………Casher can finish bill of the Customer

………Eyeglasses can make eyeglasses by Doctor order

………Eyeglasses can bring the item to Casher

* 1. Diagram

     Description automatically generatedDraw the use case diagram for buying glass process.

……………………….. (Signature)

1. Given the following description

There are operations for a simple ATM system.

**The user can withdraw the money**: This operation is used to receive the amount of money from user and reduce from the balance. If the balance is lesser than the input, you have to notify the user and do nothing.

**The user can deposit money**: This operation is used to receive the amount of money from user and add the input to the balance.

**The user can view the balance** : This operation will display the remaining balance.

**The operator can view the remaining money in in the ATM**: This operation will display the remaining money in the ATM.

Diagram

Description automatically generatedDraw the use case diagram for ATM usage.

……………………….. (Signature)