LAB 3

REQUIREMENT

DETERMINATION && ANALYSIS

Your tasks are given in the following for *each system*:

1. Construct a *context diagram* for the system (page 93 and page 585)
2. Construct a *feature tree* for the system (page 95 and page 578)
3. Draw a *use case* diagram (page 145, 149 &&& Giáo Trình tdque)
4. Write *scenarios* for 20 use cases (page 150, 581 &&&& Giáo Trình tdque)
5. Write *user stories & acceptance criteria* w.r.t your 20 use cases (page 145). Using the scenario oriented template from the link
    https://rubygarage.org/blog/clear-acceptance-criteria-and-why-its-important
    https://www.altexsoft.com/blog/business/acceptance-criteria-purposes-formats-and-best-practices/
6. Draw 10 activity diagrams && 10 sequence diagrams
7. Using the *noun extraction technique* for determining classes (boundary, controller, entity) from scenarios
8. Construct a class diagram in Analysis (>20 classes)
9. Construct a data model
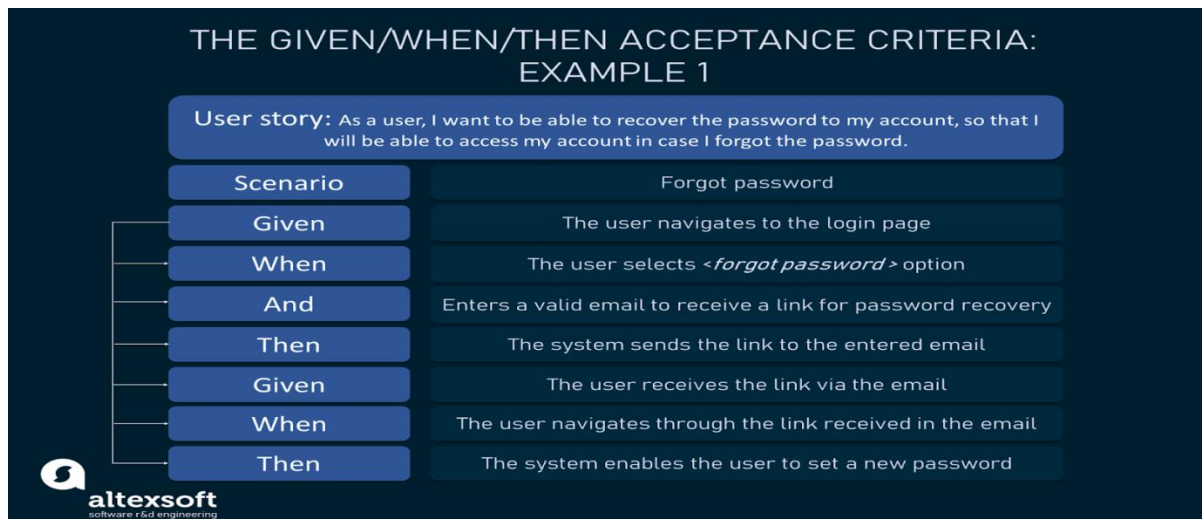
Exercise 1: A *Book/electronics/clothes/shoes Store Online* permits customers and Staff/Manager to perform the following functionalities:

Customer
- Register
- Login/Log out
- Search
- Create/view/update/cancel Cart
- Check out
- Select shipment
- Select payment
- Create/view/update/cancel order
- ….

Staff/Manager
- Login/Log out
- Search
- Store items
- Put items on selling Web
- Process (view, update, cancel…) order
- View statistics of item selling (Manager**)**

Exercise 2: A Library Management system permits actors to perform the following functionalities.

Actors

- **Librarian:** Mainly responsible for adding and modifying books, book items, and users. The Librarian can check reservation and fine….
- **Member:** All members can search the catalog, reserve, renew via Internet && and return books at desk room….
- **AutoSystem:** Mainly responsible for sending notifications for overdue books, canceled reservations, etc.

Functionalities

- **Add/Remove/Edit book:** To add, remove or modify a book or book item.
- **Search catalog:** To search books by title, author, subject or publication date.
- **Register new account/cancel membership:** To add a new member or cancel the membership of an existing member.
- **Check-out book:** To borrow a book from the library at desk room or via Internet
- **Reserve book:** To reserve a book via Internet which is not currently available.
- **Renew a book:** To re-borrow an already checked-out book.
- **Return a book:** To return a book to the library which was issued to a member.

References

[1] https://rubygarage.org/blog/clear-acceptance-criteria-and-why-its-important

[2] https://www.altexsoft.com/blog/business/acceptance-criteria-purposes-formats-and-best-practices/

[3] https://viblo.asia/p/tim-hieu-ve-user-story-va-acceptance-criteria-qua-examples-4P8560XBZY3

[4] https://www.mobindustry.net/blog/how-to-write-acceptance-criteria-examples-and-best-practices/