Assignment 5

***Track Library Usage+*** System under design: **LUCY**

Primary actor: **all**

Goal level: **summary (+)**

**1.** Each morning the supervisor sets up LUCY for the day!

**2.** The monitor logs on- to gain access to his/her functions

**3.** Whenever a patron enters, the monitor marks an entry!

**4.** Whenever a patron leaves, the monitor marks an exit!

**5.** The monitor logs off- when they are done working

**6.** The supervisor shuts down LUCY for the day!

**7.** The library administrator can run a report! at any time

**Variations:**

**2a.** A new monitor is hired:

The supervisor sets up a new passcode! for him/her

Supervisor sets up LUCY for the day System under design: **LUCY**

Primary actor: **Supervisor**

Goal level: **User (!)**

*Main Scenario*:

1. Supervisor arrives and turns on LUCY
2. LUCY turns on and is initialized
3. Supervisor tells LUCY to reset the previous day’s counts.
4. LUCY resets the counter and is now ready to go.

*Variations*:

3.a LUCY was not able to save the count when it was last shut down

1. LUCY will try to save the count again
2. If the count cannot be saved, the supervisor will write the count down and give it to the library administrator
3. Supervisor will force a count reset to zero
4. LUCY finishes initialization.
5. End of use case

Supervisor shuts down LUCY for the day System under design: **LUCY**

Primary actor: **Supervisor**

Goal level: **User (!)**

*Main Scenario*:

1. Supervisor logs on to system
2. Supervisor tells LUCY to save today’s counts.
3. LUCY saves the count
4. Supervisor shuts down LUCY

*Variations*:

3.a LUCY is unable to save the count

1. LUCY will try to save the count again
2. If the count cannot be saved, the supervisor will try saving the numbers again when LUCY is next turned on

Supervisor sets up new monitor System under design: **LUCY**

Primary actor: **Supervisor**

Goal level: **User (!)**

*Main Scenario*:

1. Supervisor logs on to system
2. Supervisor creates a new monitor
   1. Supervisor assigns new monitor a username
   2. Supervisor assigns new monitor a password
3. LUCY saves the username and password

*Variations*:

2.a Supervisor changes existing monitor’s password

2.b Supervisor changes existing monitor’s username

Monitor Logs on System under design: **LUCY**

Primary actor: **Monitor**

Goal level: **Subfunction (-)**

*Main Scenario*:

1. Monitor enters username
2. Monitor enters password
3. LUCY validates the username and password
4. LUCY saves the time the monitor logs in
5. Monitor accesses system

*Variations*:

1.a Monitor enters incorrect username

1. LUCY asks the monitor the re-enter their username

2.a Monitor enters incorrect password

1. LUCY asks the monitor to re-enter their password

Monitor Logs off System under design: **LUCY**

Primary actor: **Monitor**

Goal level: **Subfunction (-)**

*Main Scenario*:

1. Monitor chooses to log out
2. LUCY saves the time the monitor logs out
3. The monitor is signed out

*Variations*:

1.a Logout fails

1. LUCY asks the monitor to try again.

2. If logout fails, monitor writes down their time and gives it to their supervisor.

Monitor marks an Entry System under design: **LUCY**

Primary actor: **Monitor**

Goal level: **User (!)**

*Main Scenario*:

1. Monitor sees a patron enter
2. Monitor tells LUCY a patron has entered
3. LUCY increases the number of patrons count by one

*Variations*:

3.a LUCY is unable to increase the count

1. Monitor writes down the time the patron entered

2. Monitor adjusts data in LUCY when it is working again

Monitor marks an Exit System under design: **LUCY**

Primary actor: **Monitor**

Goal level: **User (!)**

*Main Scenario*:

1. Monitor sees a patron exit
2. Monitor tells LUCY a patron has exited
3. LUCY decreases the number of patrons count by one

*Variations*:

3.a LUCY is unable to decrease the count

1. Monitor writes down the time the patron left

2. Monitor adjusts data in LUCY when it is working again

Library Administrator runs a report System under design: **LUCY**

Primary actor: **Library Administrator**

Goal level: **User (!)**

*Main Scenario*:

1. The Library Administrator asks LUCY to generate a report
2. LUCY asks the Library Administrator which data should be used in the report
3. The Library Administrator tells LUCY which data to use
4. LUCY generates the report

*Variations*:

**Use Case Map**

Actors:

1. Student: the monitor
2. Supervisor
3. Library Administrator

