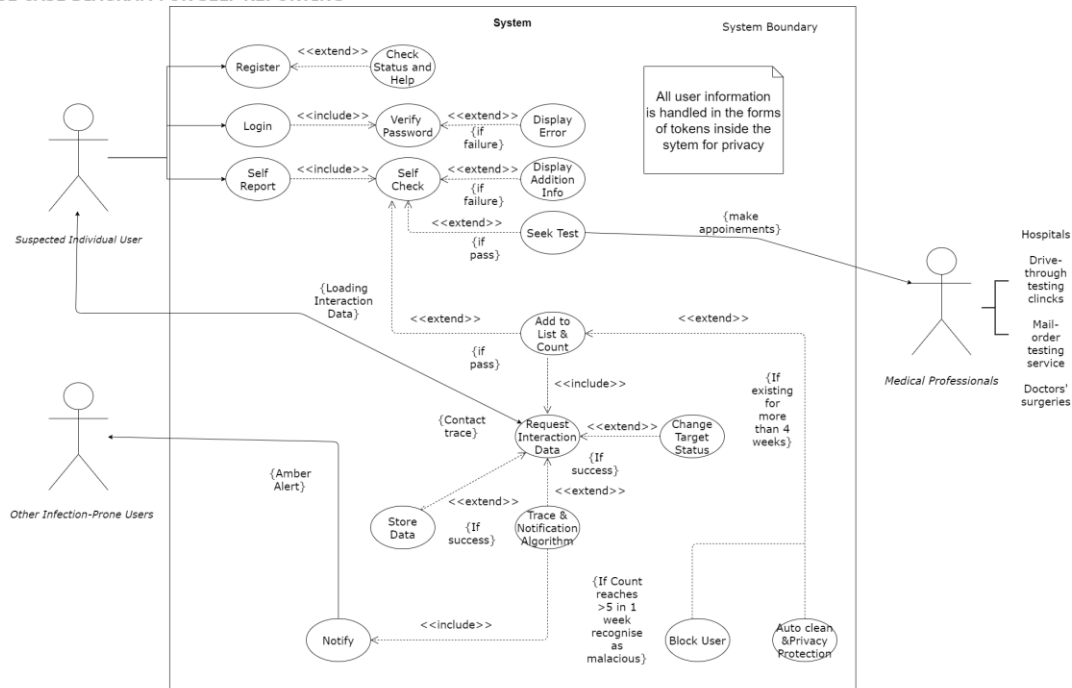# USE CASE DIAGRAM FOR SELF REPORTING

Description

Logged in users may self-report via mobile app if they show COVID-19 symptoms and suspect that they have been infected with COVID-19

Actors

- Individual User

Pre-conditions

- Internet access is available
- Users can register account in the system
- Users can log in to the system on UI
- User has shown COVID-19 symptoms and likely to be infected COVID-19.
- Local database of user's recent close contact is available(working hardware chips pre-installed)

Post-conditions

- User is registered as a suspected COVID-19 case in the system.
- User requests for a medical test to verify the self-report case.
- All users who have been directly or transitively contacted with the user in the past 4 days are registered as amber-status users in the system.

Main Scenario

- 1. User clicks "Self-Report" bar on the main page of mobile app UI.
- 2. User passes through a quick self-check to ensure current symptoms matches COVID-19 symptoms.
- 3. Add user info into back-end list of suspected cases
- 4. Server requests for a list of users who have recently closely contacted with the suspected case from user's mobile client.
- 5. Add all user info on the requested list to the back-end list of amber status user.Propogate to inner trace and notification algorithm and notify potential risk-prone users via their phone number.
- 6. Notify the app front-end to show completion.
-7. Data auto-clean after 4 weeks for privacy protection

Alterative Scenarios

User already exists in suspected cases list

- 3. try to add user info: User already exists in suspected cases list.
- 4. Notify the app front-end to show failure.

Self-check result doesn't match COVID-19 symptoms

- 2. User try to pass the self-check: User don't have COVID-19 symptoms.
- 3. Notify the app front-end to show failure.

Back-end list insertion failed or partially failed

- 3. Back-end manager failed to add user info completely into suspected cases list.
- 4. Notify the app front-end to show failure. Ask whether to retry?
- 5. If retry, go back to 3.
- 6. If not retry, remove the info of the user which has been incompletely inserted to the list.

List of closely contacted users is empty

- 4. try to retrieve local closely contacted users list: list is empty.
- 5. go to 6.

###User self-reports more than 5 times a week
Recognise user as malacious and block user

Failure situations

1.Hardware malfunctioning so impossible to obtain interaction data. In this case, we might want delegate this to, say, Apple.
2. User tempts with interaction data on their local directory. In this case we can detect if the interaction data is unusually large we may choose to ingore this source and block data. Otherwise it is a trade-off we've made not to store all interaction data at real time basis.