SOFTWARE ANALYSIS MODELS

**Safehome project by CPI corporation**

**March 05, 2015**

**Version 1.0**

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# Introduction

This document describes analysis model of Safehome project. The analysis model comprises of use case diagram, use case, and swimlane diagram. To help comprehension, reading [glossary](t1-srs-ver1_1차수정.docx#gloss) in SRS document first is recommended.

# Use case diagram

## Use case diagram for security feature

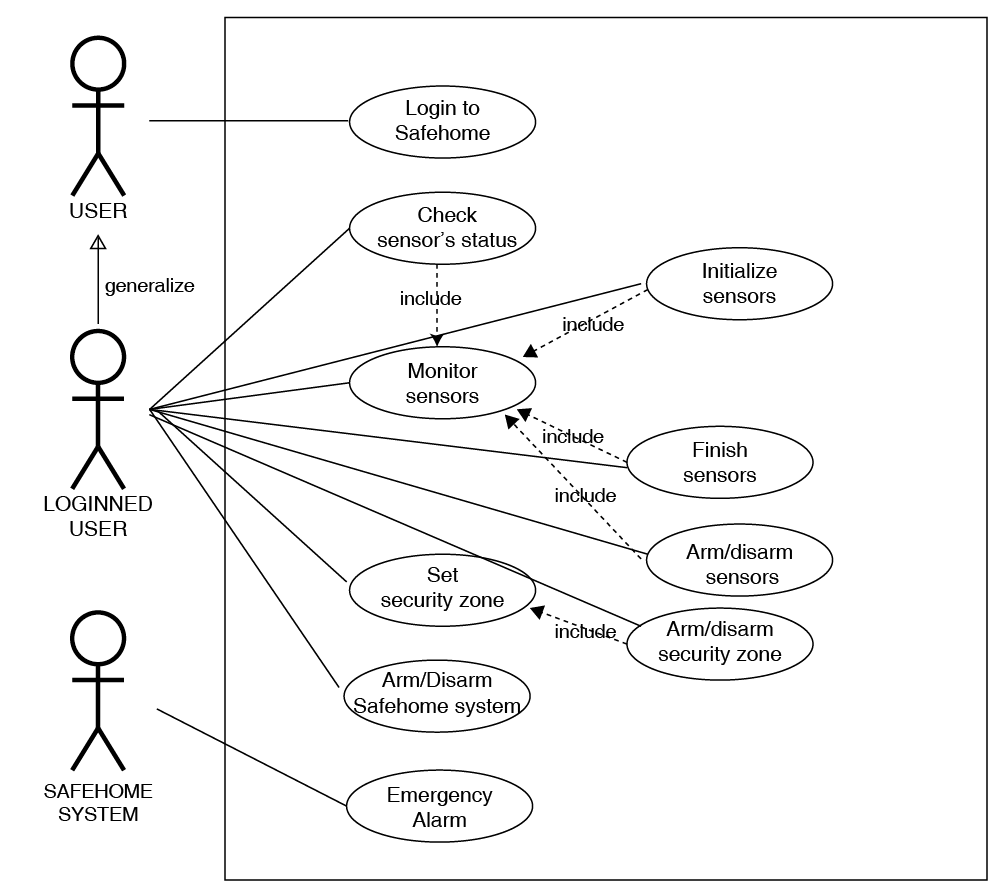


Figure Use case diagram for security feature

## Use case diagram for surveillance feature

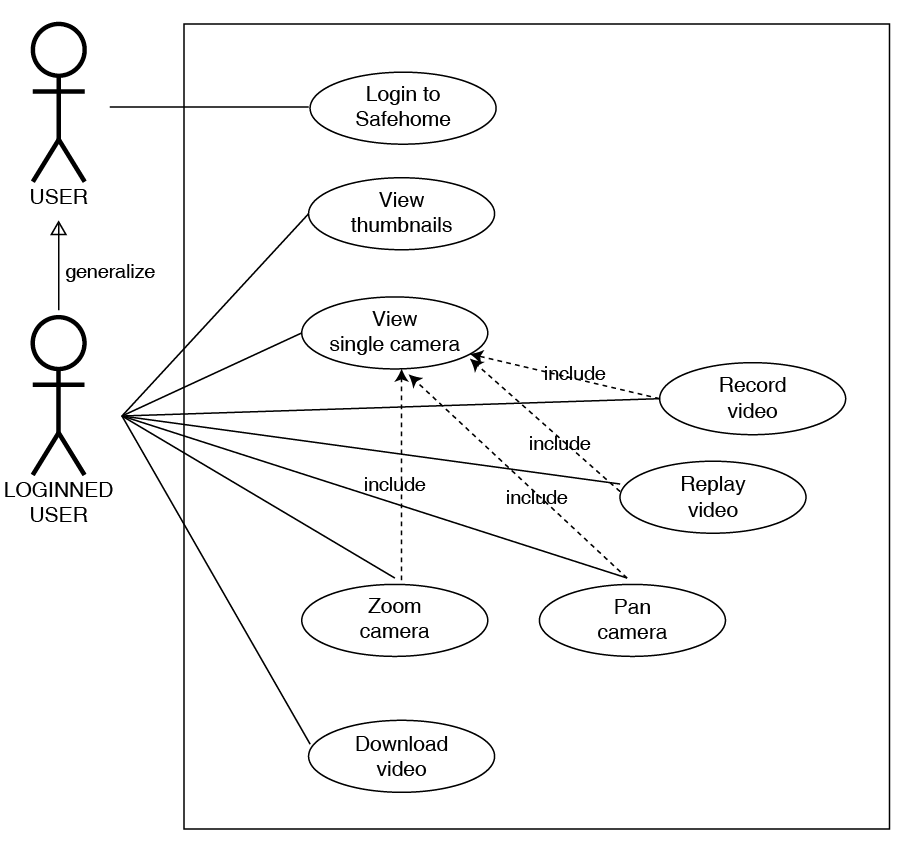


Figure 2 Use case diagram for surveillance feature

## Use case diagram for Safehome Website

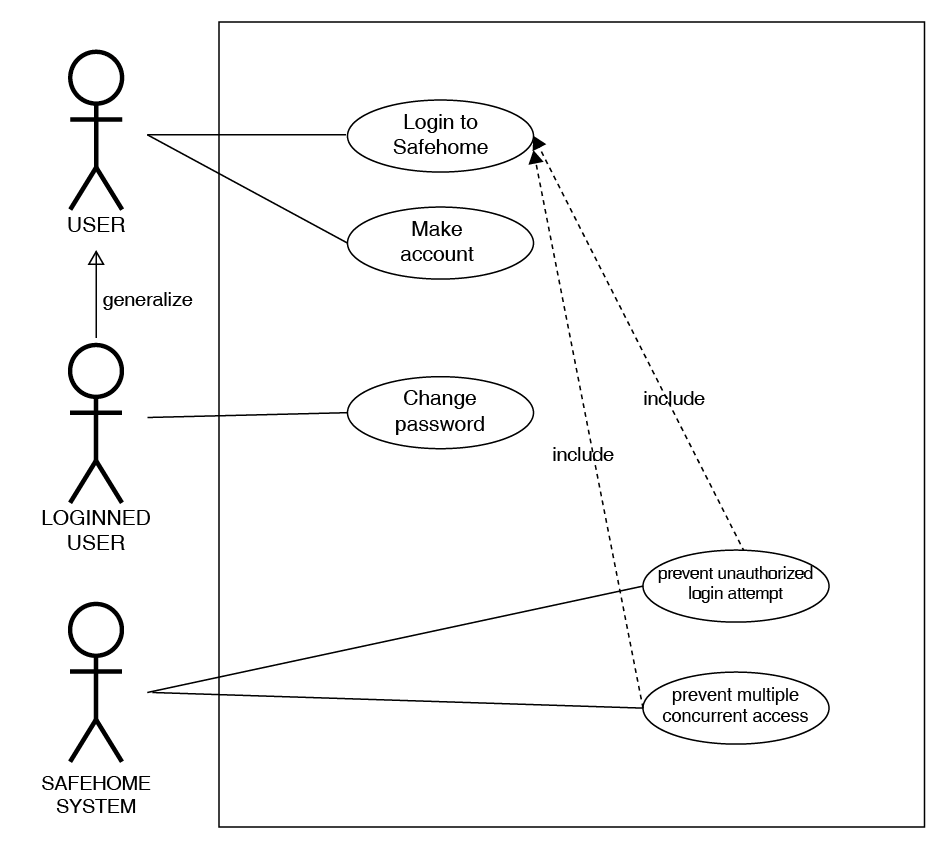


Figure 3 Use case diagram for Safehome Website

# Use case

## Use cases for security feature

### Set security zone

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC1 | | |
| Use Case Name | Set security zone | | |
| Related Requirements | [FR1.1](t1-srs-ver1_1차수정.docx#FR11) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User sets security zone which comprise any set of sensors and cameras. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to set a security zone. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘security zone’ menu.  3. User clicks ‘set a new security zone’ button.  4. User enters password one more time.  5. User selects sensors and cameras that user wants.  6. User Click ‘complete’ button. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

### Check sensor status

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC2 | | |
| Use Case Name | Check sensor status | | |
| Related Requirements | [FR1.2](t1-srs-ver1_1차수정.docx#FR12) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User checks sensor status. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to check sensor status. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User can check sensor status from the floor plan. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Initialize a sensor

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC3 | | |
| Use Case Name | Initialize a sensor | | |
| Related Requirements | [FR1.3](t1-srs-ver1_1차수정.docx#FR13) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User initializes sensor that user wants. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. A sensor that user wants to initialize should not be already initialized. |
| Trigger | User decides to initialize sensor. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a sensor icon placed in floor plan  4. User clicks ‘initialze’ button.  5. User enters password one more time.  6. Selected sensor is initialized. |
| Exceptions | 1. If entered password in step 5 in scenario is wrong, sensor will not be initiated. |
| Priority | High |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

### Finish a sensor

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC4 | | |
| Use Case Name | Finish a sensor | | |
| Related Requirements | [FR1.4](t1-srs-ver1_1차수정.docx#FR14) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User finishes a sensor. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. A sensor that user wants to finish should be already initialized. |
| Trigger | User decides to finish a sensor. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a sensor icon placed in floor plan.  4. User clicks ‘finish’ button.  5. User enters password one more time.  6. Selected sensor is finished. |
| Exceptions | 1. If entered password in step 5 in scenario is wrong, sensor will not be finished. |
| Priority | High |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

### Arm a sensor

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC5 | | |
| Use Case Name | Arm a sensor | | |
| Related Requirements | [FR1.5](t1-srs-ver1_1차수정.docx#FR15) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User arms a sensor. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. A sensor that user wants to arm should be already initialized. |
| Trigger | User decides to arm a sensor. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a sensor icon placed in floor plan.  4. User clicks ‘arm’ button.  5. User enters password one more time.  6. Selected sensor is armed. |
| Exceptions | 1. If entered password in step 5 in scenario is wrong, sensor will not be finished. |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Disarm a sensor

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC6 | | |
| Use Case Name | Disarm a sensor | | |
| Related Requirements | [FR1.6](t1-srs-ver1_1차수정.docx#FR16) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User disarms a sensor. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. A sensor that user wants to disarm should be already armed. |
| Trigger | User decides to disarm a sensor. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks sensor icon placed in floor plan.  4. User clicks ‘disarm’ button.  5. User enters password one more time.  6. Selected sensor is disarmed. |
| Exceptions | 1. If entered password in step 5 in scenario is wrong, sensor will not be finished. |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Arm a security zone

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC7 | | |
| Use Case Name | Arm a security zone | | |
| Related Requirements | [FR1.1](t1-srs-ver1_1차수정.docx#FR11) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User sets security zone which comprise any set of sensors and cameras. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. Selected security zone is already disarmed. |
| Trigger | User decides to set a security zone. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘security zone’ menu.  3. A list of security zones show up  4. User selects one of the security zone in the list.  5. User clicks ‘arm’ button  6. User enters password one more time.  7. Selected security zone is armed. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Disarm a security zone

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC8 | | |
| Use Case Name | Disarm a security zone | | |
| Related Requirements | [FR1.1](t1-srs-ver1_1차수정.docx#FR11) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User sets security zone which comprise any set of sensors and cameras. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. Selected security zone is already armed. |
| Trigger | User decides to set a security zone. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘security zone’ menu.  3. A list of security zones show up  4. User selects one of the security zone in the list.  5. User clicks ‘disarm’ button  6. User enters password one more time.  7. Selected security zone is disarmed. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Monitor sensors

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC9 | | |
| Use Case Name | Monitor sensors | | |
| Related Requirements | [FR1.8](t1-srs-ver1_1차수정.docx#FR18) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User monitors sensors. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. Sensors should be already initiated. |
| Trigger | User decides to monitor sensors. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User monitors sensors. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Emergency alarm

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC10 | | |
| Use Case Name | Emergency alarm | | |
| Related Requirements | [FR1.9](t1-srs-ver1_1차수정.docx#FR19) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | Safehome system |
| Goal in context | Safehome system alarms users when emergency happens. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. User already registered his/her phone number to Safehome system. |
| Trigger | A sensor senses emergency. |
| Scenario | 1. A sensor senses emergency.  2. Safehome system sends a SMS message describing emergency situation.  3. If user specified any other alarm methods, alarm messages will be sent using those methods. |
| Exceptions | 1. If user’s phone is unavailable, SMS message can’t be sent. |
| Priority | Very high |
| Frequency of use | Medium |
| Channel to actor | Safehome system central processor |

## Use cases for surveillance feature

### View thumbnails

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC11 | | |
| Use Case Name | View thumbnails | | |
| Related Requirements | [FR2.1](t1-srs-ver1_1차수정.docx#FR21) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User views thumbnails of each camera. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to view thunbnails of each camera |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User views thumbnails of each camera. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | High |
| Channel to actor | Safehome Website |

### View a single camera

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC12 | | |
| Use Case Name | View a single camera | | |
| Related Requirements | [FR2.2](t1-srs-ver1_1차수정.docx#FR22) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User views a single camera output. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to view a single camera output. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a thumbnail view of a camera that user wants to watch.  4. User views a single camera output. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | High |
| Channel to actor | Safehome Website |

### Start recording a video

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC13 | | |
| Use Case Name | Start recording a video | | |
| Related Requirements | [FR2.3](t1-srs-ver1_1차수정.docx#FR23) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User starts recording a video of a camera. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to record a video of a camera. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a thumbnail view of a camera that user wants to record.  4. User can specify recording period(e.g., 1 hour) using ‘recording time’ button next to ‘start recording’ button.  5 If user doesn’t specify recording time, recording doesn’t stop until user explicitly stops it.  6. User clicks ‘start recording’ button.  7. User enters password one more time.  8. Recording starts. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Stop recording a video

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC14 | | |
| Use Case Name | Stop recording a video | | |
| Related Requirements | [FR2.3](t1-srs-ver1_1차수정.docx#FR23) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User stops recording a video of a camera. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. User should already start recording a video that user wants to stop recording. |
| Trigger | User decides to stop recording a video. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a thumbnail view of a camera that user wants to stop recording.  4. User clicks ‘stop recording’ button.  5. User enters password one more time.  6. Recording stops. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | High |
| Channel to actor | Safehome Website |

### Replay a video

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC15 | | |
| Use Case Name | Replay a video | | |
| Related Requirements | [FR2.4](t1-srs-ver1_1차수정.docx#FR24) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User replays a video recorded. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. Video that user wants to replay should have been already recorded. |
| Trigger | User decides to replay a video. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘recorded videos’ menu.  3. A list of recorded video shows up.  4. User select a video that user wants to watch.  5. Click ‘replay’ button.  6. Replay starts. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | High |
| Channel to actor | Safehome Website |

### Download a video

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC16 | | |
| Use Case Name | Download a video | | |
| Related Requirements | [FR2.5](t1-srs-ver1_1차수정.docx#FR25) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User downloads a video from Safehome Web server. |
| Preconditions | 1. Safehome system is installed in user’s home.  2. Video that user wants to download should have been already recorded. |
| Trigger | User decides to download a video. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘recorded videos’ menu.  3. A list of recorded video shows up.  4. User select a video that user wants to download.  5. Click ‘download’ button.  6. Download starts. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | High |
| Channel to actor | Safehome Website |

### Pan a camera

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC17 | | |
| Use Case Name | Pan a camera | | |
| Related Requirements | [FR2.6](t1-srs-ver1_1차수정.docx#FR26) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User pans a camera. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to pan a camera. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a thumbnail of camera that user wants to pan.  4. User clicks ‘control camera’ button.  5. User enters password one more time.  6. User pans a camera. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

### Zoom a camera

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC18 | | |
| Use Case Name | Zoom a camera | | |
| Related Requirements | [FR2.7](t1-srs-ver1_1차수정.docx#FR27) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User zooms a camera. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | User decides to zoom a camera. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘floor plan’ menu.  3. User clicks a thumbnail of camera that user wants to pan.  4. User clicks ‘control camera’ button.  5. User enters password one more time.  6. User zooms a camera. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Medium |
| Channel to actor | Safehome Website |

## Use cases for Safehome Website

### Make an Safehome Website account

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC19 | | |
| Use Case Name | Make an Safehome Website account | | |
| Related Requirements | [FR3.1](t1-srs-ver1_1차수정.docx#FR31) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User makes an account for accessing Safehome system. |
| Preconditions | 1. User purchased Safehome system.  2. User has a registration key which CPI Corporation gave when user purchased Safehome system. |
| Trigger | User purchases Safehome system. |
| Scenario | 1. User visits Safehome Website.  2. From the main page, user clicks ‘register’ button.  3. User enters user ID in ‘user id’ form.  4. User enters password in ‘password’ form.  5. User enters password again in ‘confirm password’ form.  6. User enters registration key in ‘registration key’ form.  7. User clicks ‘register’ button. |
| Exceptions | 1. If user enters different password in ‘password’ form and ‘confirm password’, registration will fails.  2. If user enters a registration key which doesn’t exist, registration will fail. |
| Priority | High |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

### Log in to Safehome Website

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC20 | | |
| Use Case Name | Log in to Safehome Website | | |
| Related Requirements | [FR3.2](t1-srs-ver1_1차수정.docx#FR32) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User logs in to Safehome Website. |
| Preconditions | 1. User should already have a Safehome Website account. |
| Trigger | User decides to log in to Safehome Website. |
| Scenario | 1. User visits Safehome Website.  2. From the main page, user enters his/her user ID in ‘ID’ form.  3. User enters password in ‘password’ form.  4. User clicks ‘log in’ button. |
| Exceptions | If user enters wrong user ID and password pair, log in fails. |
| Priority | High |
| Frequency of use | High |
| Channel to actor | Safehome Website |

### Prevent unauthorized login attempt

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC20 | | |
| Use Case Name | Prevent unauthorized login attempt | | |
| Related Requirements | [FR3.3](t1-srs-ver1_1차수정.docx#FR33) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | Safehome system |
| Goal in context | Prevent unauthorized log in attempt. |
| Preconditions | User should already have a Safehome Website account. |
| Trigger | Unauthorized person decides to log in to Safehome Website with other’s user ID. |
| Scenario | 1. A person(could be user, or any other person) attempts to log in Safehome Website.  2. Log in attempts failed in 5 consecutive times.  3. The account that person tried to log in will be disabled by Safehome system. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

### Change password

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC21 | | |
| Use Case Name | Change password | | |
| Related Requirements | [FR3.4](t1-srs-ver1_1차수정.docx#FR34) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | User |
| Goal in context | User changes password. |
| Preconditions | 1. User should already have a Safehome Website account. |
| Trigger | User decides to change his/her Safehome Website account’s password. |
| Scenario | 1. User logs in to Safehome Website.  2. User selects ‘my account’ menu.  3. User click ‘change password’ button.  4. User enters current password in ‘current password’ form.  5. User enters new password in ‘new password’ form.  6. User enters new password again in ‘confirm new password’ form.  7. User clicks ‘complete’ button. |
| Exceptions | 1. If user enters wrong current password, changing password will fail.  2. If user enters different password in ‘new password’ form and ‘confirm new password’ form, changing password will fail. |
| Priority | High |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

### Prevent multiple concurrent Safehome Website access

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC22 | | |
| Use Case Name | Prevent multiple concurrent Safehome Website access | | |
| Related Requirements | [FR3.5](t1-srs-ver1_1차수정.docx#FR35) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | Safehome system |
| Goal in context | Prevent multiple concurrent Safehome Website access. |
| Preconditions | 1. User should already have a Safehome Website account. |
| Trigger | A person tries to log in to Safehome Website with an account while that account is already logged in and keeping its session. |
| Scenario | 1. User logs in to Safehome Website.  2. A person(could be anyone including the user himself/herself) tries to log in to Safehome Website with same account that user used in step 1.  3. Log in attempts in step 2 will be discarded. |
| Exceptions |  |
| Priority | Medium |
| Frequency of use | Low |
| Channel to actor | Safehome Website |

## Use cases for Safehome system management

### Initial Safehome system setting

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC23 | | |
| Use Case Name | Initial Safehome system setting | | |
| Related Requirements | [FR4.1](t1-srs-ver1_1차수정.docx#FR41) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | Safehome system provider |
| Goal in context | Safehome system provider sets the initial safehome system. |
| Preconditions | 1. User purchases Safehome system. |
| Trigger | User purchases Safehome system. |
| Scenario | 1. Safehome system provider and user discuss what to deploy, and where to deploy sensors and cameras.  2. Safehome system provider visits user’s house and installs each sensors and cameras. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Low |

### Safehome system maintenance

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC24 | | |
| Use Case Name | System maintenance | | |
| Related Requirements | [FR4.2](t1-srs-ver1_1차수정.docx#FR42) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | Safehome system provider |
| Goal in context | Safehome system provider provides 2-year free warranty for device(e.g., sensor, camera, etc) disorder. After 2 years, customer should pay for maintenance service. |
| Preconditions | 1. Safehome system is installed in user’s home. |
| Trigger | A device is broken. |
| Scenario | 1. User calls to Safehome system provider.  2. User describes which sensor is broken.  3. Safehome system provider visits user’s home in 3 days, and fix the broken device. |
| Exceptions | N/A |
| Priority | High |
| Frequency of use | Low |

### Add a device into Safehome system

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Code | UC25 | | |
| Use Case Name | Add a device into safehome system | | |
| Related Requirements | [FR4.3](t1-srs-ver1_1차수정.docx#FR43) | | |
| Created By | Koo Yoonpyo | Last Modified By | Koo Yoonpyo |
| Created At | May 5th 2015 | Last Modified At | May 5th 2015 |

|  |  |
| --- | --- |
| Primary actor | Safehome system provider |
| Goal in context | Add a device into Safehome system |
| Preconditions | 1. Safehome system is installed in user’s home |
| Trigger | User decides to install additional device into Safehome system. |
| Scenario | 1. User calls to Safehome system provider.  2. User describes which device user wants to add.  3. Safehome system provider visits user’s house in 3 days and install additional device. |
| Exceptions | N/A |
| Priority | Medium |
| Frequency of use | Low |

# Swimlane diagram

## Swimlane diagram for security feature

### Set security zone ([UC1](#_Set_security_zone))

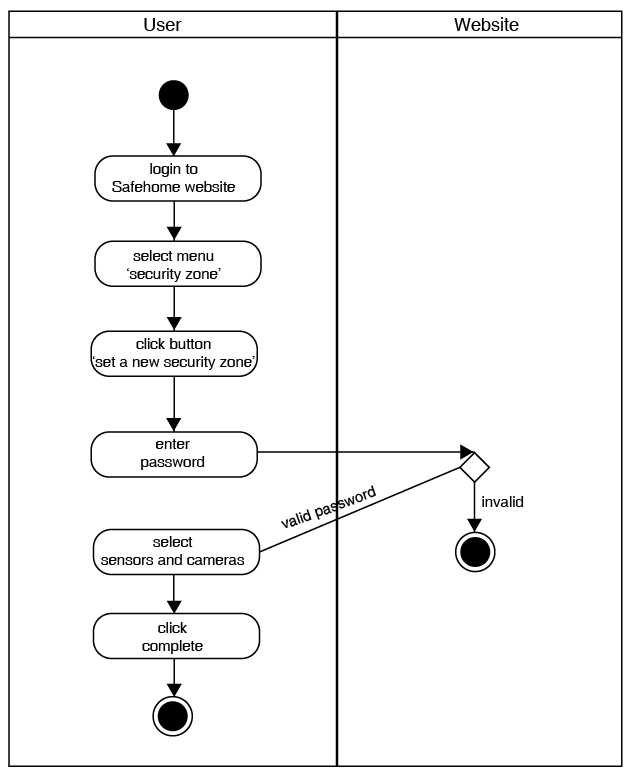


Figure 4 Swimlane diagram for Set security zone

### Check sensor status ([UC2](#_Check_sensor_status))

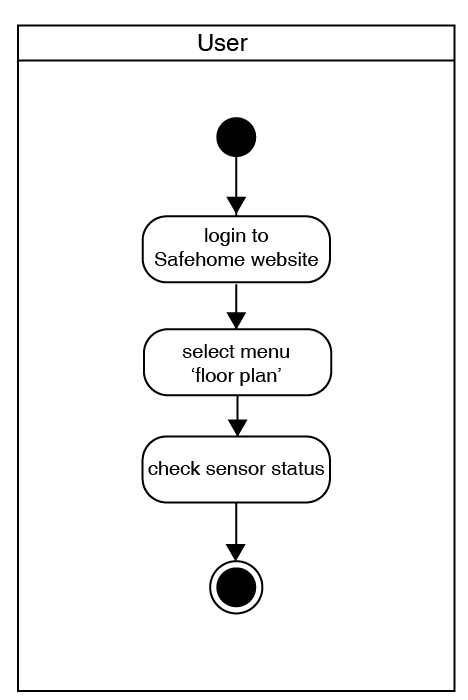


Figure 5 Swimlane diagram for Check sensor status

### Initialize/finish sensor ([UC3](#_Initialize_a_sensor), [UC4](#_Finish_a_sensor))

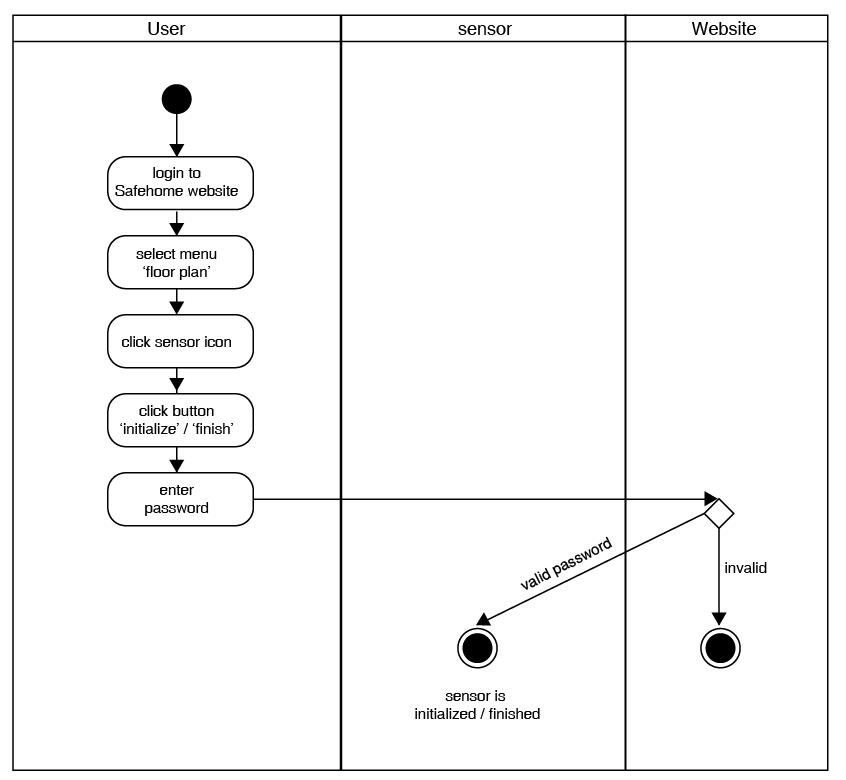


Figure 6 Swimlane diagram for Initialize/finish sensor

### Arm/disarm sensor ([UC5](#_Arm_a_sensor), [UC6](#_Disarm_a_sensor))

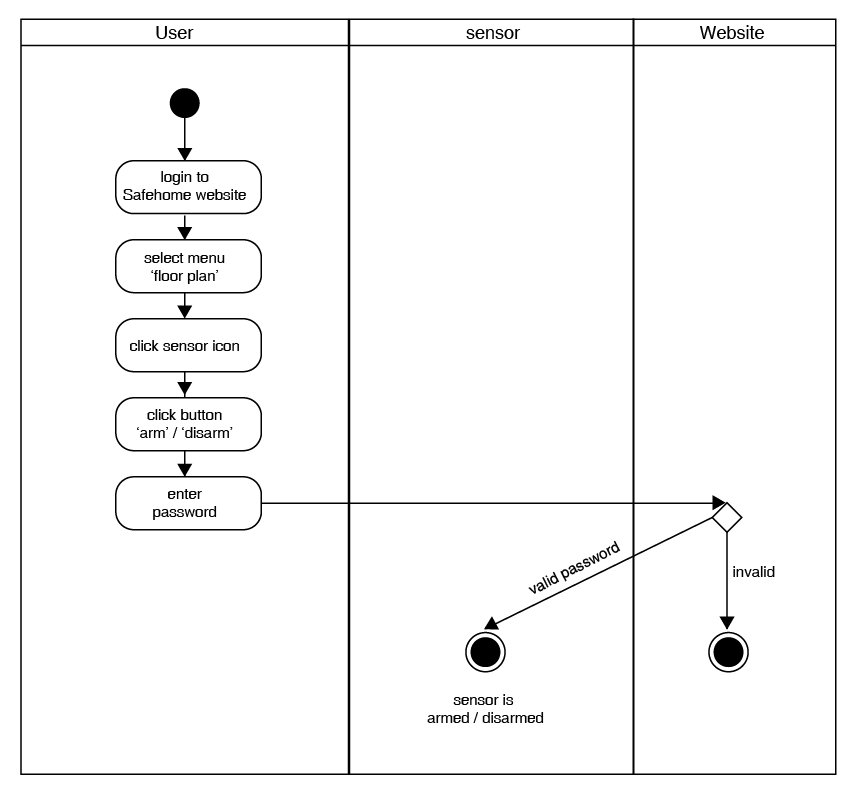


Figure 7 Swimlane diagram for Arm/diarm sensor

### Arm/disarm security zone ([UC7](#_Arm_a_security), [UC8](#_Disarm_a_security))

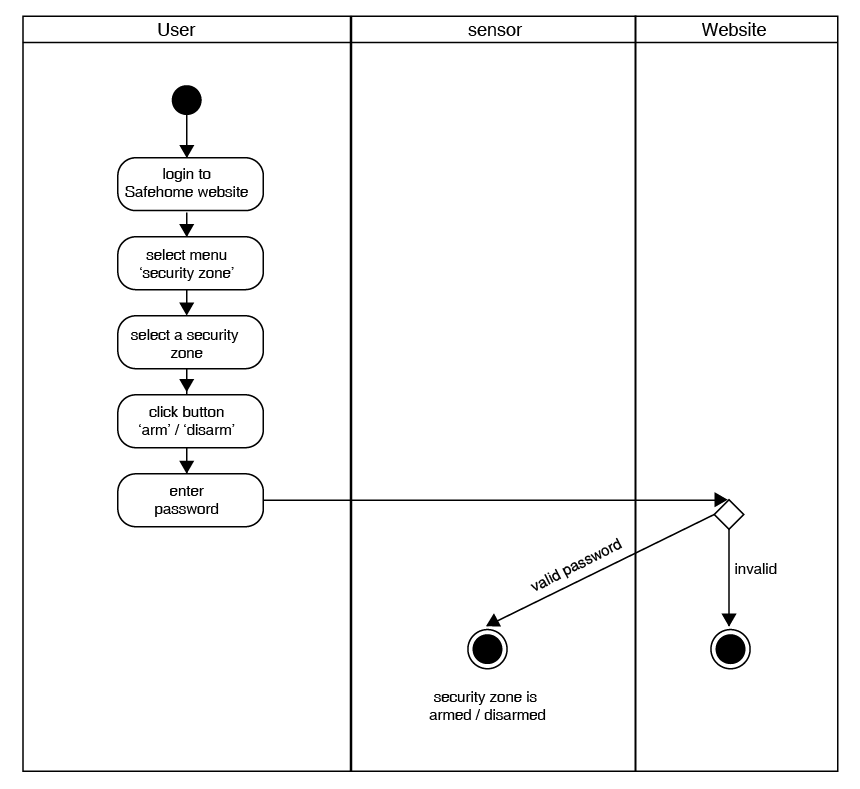


Figure 8 Swimlane diagram for Arm/disarm security zone

### Monitor sensors ([UC9](#_Monitor_sensors))

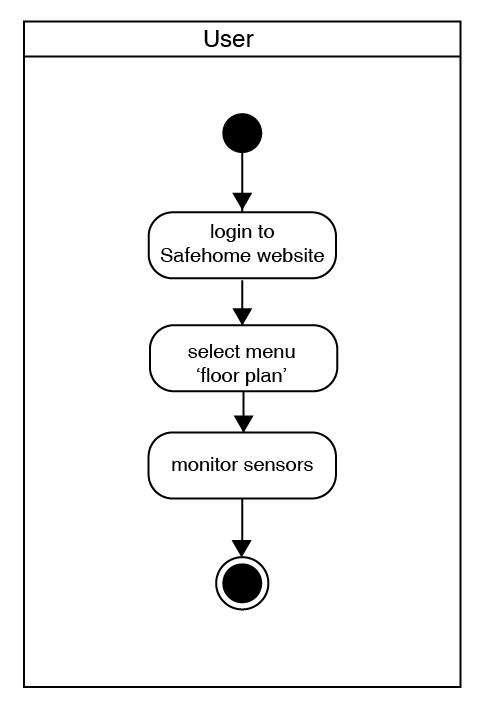


Figure 9 Swimlane diagram for Monitor sensors

### Emergency alarm ([UC10](#_Emergency_alarm))

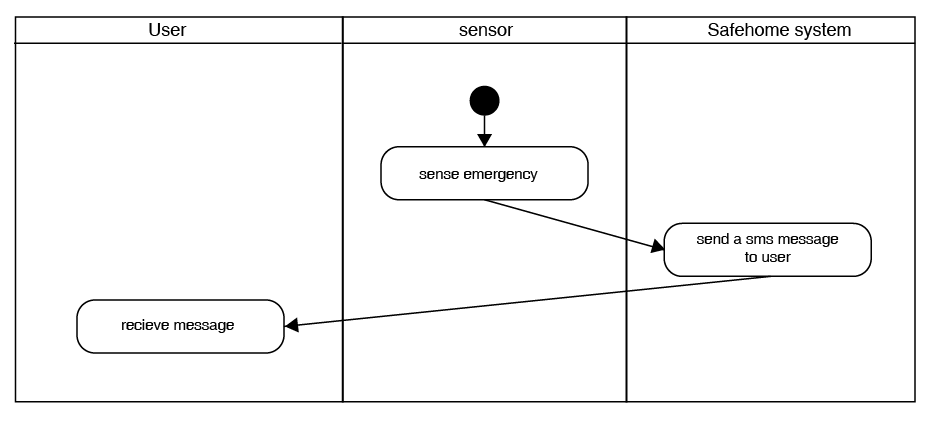


Figure 10 Swimlane diagram for Emergency alarm

## Swimlane diagram for surveillance feature

### View thumbnails ([UC11](#_View_thumbnails)), View a single camera ([UC12](#_View_a_single)), start/stop recording ([UC13](#_Start_recording_a), [UC14](#_Stop_recording_a)), pan/zoom camera ([UC17](#_Pan_a_camera), [UC18](#_Zoom_a_camera))

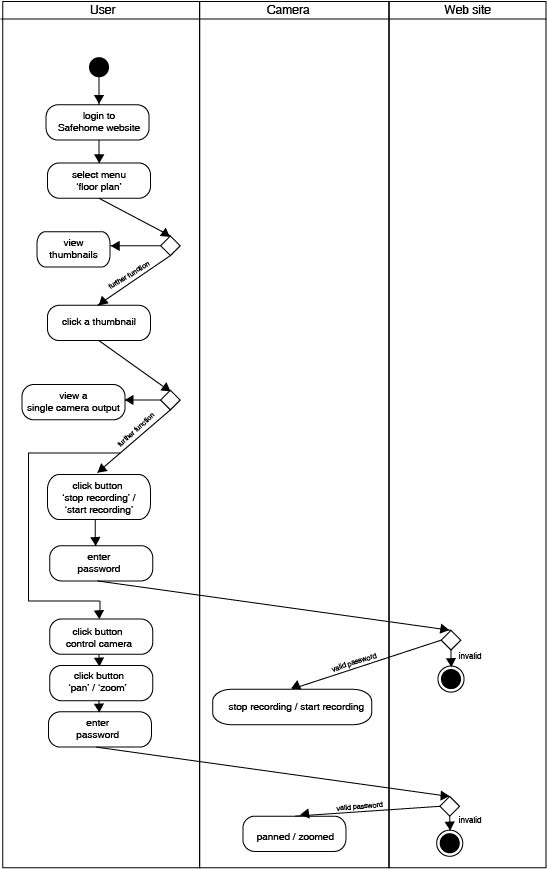


Figure 11 Swimlane diagram for View thumbnails, View a single camera, start/stop recording, pan/zoom camera

### Replay/download video ([UC15](#_Replay_a_video), [UC16](#_Download_a_video))

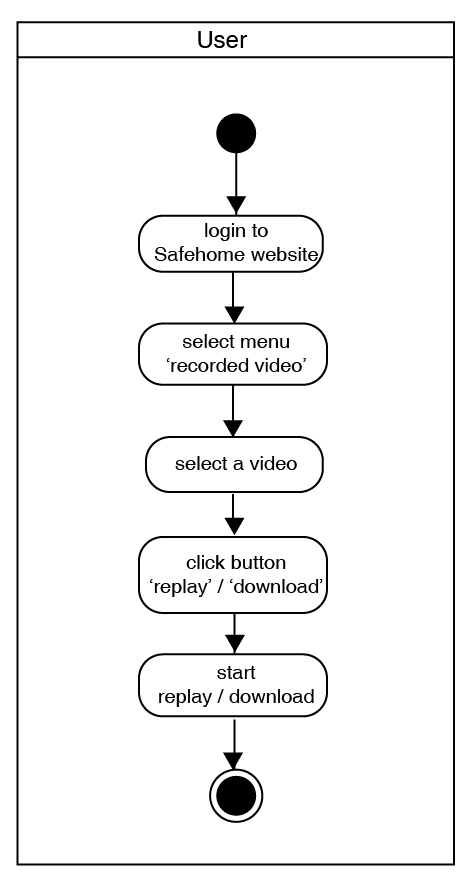


Figure 12 Swimlane diagram for Replay/download video

## Swimlane diagram for Safehome Website

### Make an account ([UC19](#_Make_an_Safehome))

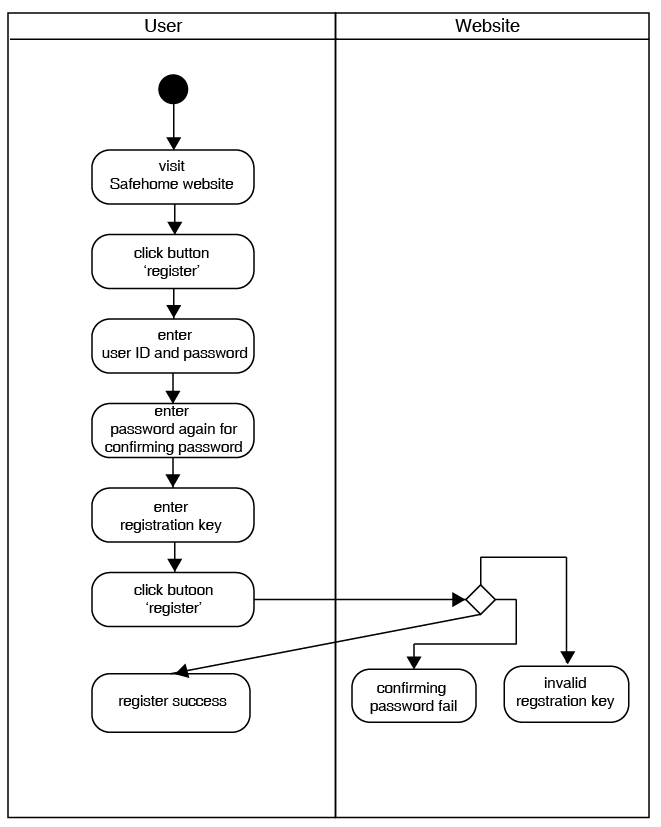


Figure 13 Swimlane diagram for Make an account

### Log in to Safehome Website ([UC20](#_Log_in_to))

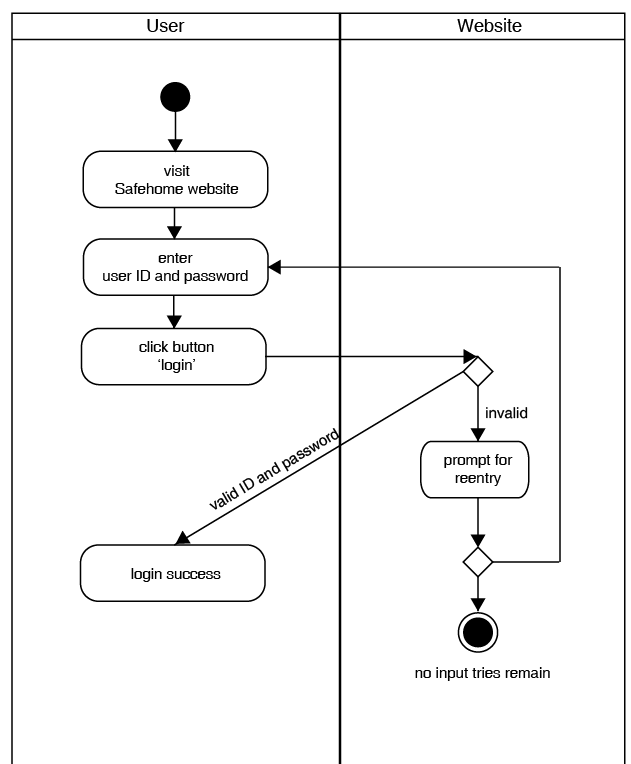


Figure 14 Swimlane diagram for Log in to Safehome Website

### Change password ([UC21](#_Change_password))

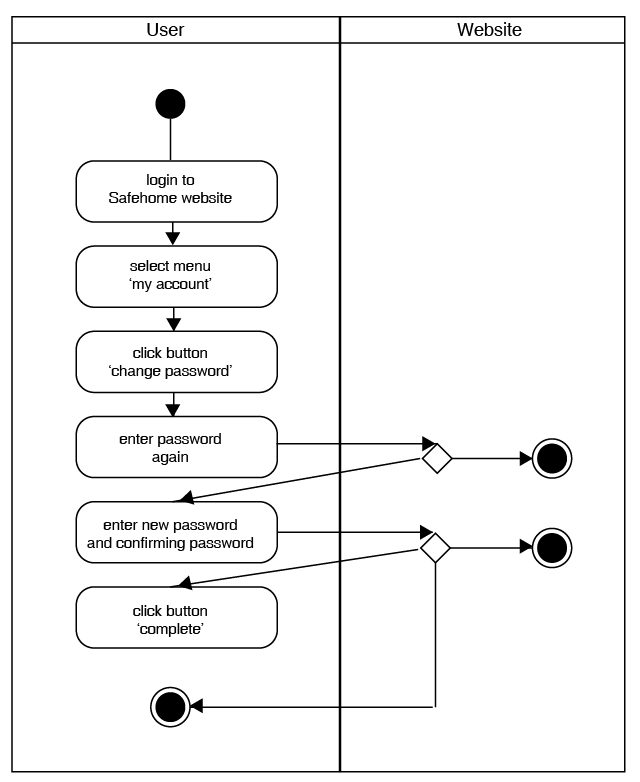


Figure 15 Swimlane diagram for Change password

# Appendix

## Meeting log

|  |  |
| --- | --- |
| Meeting log 5 | |
| Time | 2015-04-25 13:00 ~ 2015-04-25 18:30 |
| Location | N1 building room 403 |
| Participants | Chung Saehun, Koo Yoonpyo |
| Issues discussed | 1. Revision of requirement |
| Next meeting | 2015-04-28 18:00 |
| Issues will be discussed | 1. Analysis modeling plan 2. Revision of SRS |

|  |  |
| --- | --- |
| Meeting log 6 | |
| Time | 2015-04-28 18:00 ~ 2015-04-28 22:00 |
| Location | N1 building room 403 |
| Participants | Jung Saehun, Koo Yoonpyo |
| Issues discussed | 1. Analysis modeling plan 2. Revision of SRS |
| Next meeting | 2015-05-01 23:00 |
| Issues will be discussed | 1. Analysis modeling plan 2. finalize revision of SRS |

|  |  |
| --- | --- |
| Meeting log 7 | |
| Time | 2015-05-01 23:00 ~ 2015-05-02 01:00 |
| Location | N1 building room 403 |
| Participants | Jung Saehun, Koo Yoonpyo |
| Issues discussed | 1. Analysis modeling plan 2. revision of SRS |
| Next meeting | 2015-05-03 22:00 |
| Issues will be discussed | 1. Assign part of analysis modeling 2. revision of SRS |

|  |  |
| --- | --- |
| Meeting log 8 | |
| Time | 2015-05-03 22:00 ~ 2015-05-03 24:00 |
| Location | N1 building room 403 |
| Participants | Jung Saehun, Koo Yoonpyo |
| Issues discussed | 1. Assign part of analysis modeling (use case, use case diagram) 2. revision of SRS |
| Next meeting | 2015-05-05 15:00 |
| Issues will be discussed | 1. revision of use case and use case diagram 2. draw swimlane diagram |

|  |  |
| --- | --- |
| Meeting log template | |
| Time | 2015-05-05 15:00 ~ 2015-05-05 21:00 |
| Location | N1 building room 403 |
| Participants | Jung Saehun, Koo Yoonpyo |
| Issues discussed | 1. revision of use case and use case diagram 2. draw swimlane diagram |
| Next meeting | 2015-05-06 20:00 |
| Issues will be discussed | 1. revision of analysis model document |

## Who did what list

|  |  |
| --- | --- |
| Name | List |
| Chung Saehun | * Introduction * Design use case diagram **\*** * Design swimlane diagram **\*** * Draw use case diagram * Draw swimlane diagram |
| Koo Yoonpyo | * Write all use cases * Design use case diagram **\*** * Design swimland diagram **\*** * Write analysis model document * Connect hyperlinks |

**\* We did all together**