

Project name: MediGram

Team 22

red parts are meant probably to be modified later

blue parts -- Jay(Xiaohui) Liu

purple parts -- Jiaqi Liu

Use case ID naming convention:

**UC -- Use Case, S -- Sign up, P -- Patient, C -- Care provider, PC -- P and C, SA --
System Admin**

A general template for use cases (you can copy this to save some time):

UC-

Use case name: verb + noun

Actors:

-

Goal:

Triggers:

-

Preconditions:

-

-

Postconditions:

-

-

Basic flow:

1. ...

2. ...

3. ...

Exception:

To do list:

US 09.03.01

As a sys admin, I want each photograph to be under 65536 bytes in size.

Task Basics

US 01.01.01

As a patient I want to record my problems, each denoted with a title, date started, and a brief description.

US 01.01.02 (added 2018-02-14)

As a patient, I want the maximum length of the task title to be at least 30 characters.

US 01.01.03 (added 2018-02-14)

As a patient, I want the maximum length of the task description to be at least 300 characters.

US 01.02.01

As a patient, I want to view a list of my problems, with their titles, dates, and number of records.

US 01.03.01 (revised 2018-02-16)

As a patient, I want to edit the details for any one of my problems.

US 01.04.01

As a patient, I want to delete a problem of mine.

US 01.05.01

As a patient I want to add records (photos, locations, comments) to problems.

Record Details

US 02.01.01

As a patient or care provider, I want to view all the records for a given problem, including its title, description, photo, etc.

US 02.02.01

As a patient, I want to add records to problems.

US 02.03.01

As a patient, records can have a geo-location.

US 02.04.01

As a patient, records can have a body location.

US 02.05.01

As a patient, records can have a title and comment.

US 02.06.01

As a patient, records can have a photo.

US 02.07.01

As care provider, I want to add new comment records to a problem for my patients.

US 02.08.01

As a patient, records have a timestamp.

US 02.09.01

As a patient, I want some method of helping me take consistent photos, so that when I show the doctor any progression such as the growth of a mole is evident.

US 02.10.01

As a patient, I need to have a slideshow mode whereby photo records of a problem can be browsed by clicking. So I could "animate" changes to a doctor.

User Profile

US 03.01.01

As a patient, I want a profile with a unique userid and my contact information.

US 03.01.02

As a patient, I want the minimum userid to be at least 8 characters.

US 03.01.03

As a patient, I want the contact information to include an email address and a phone number.

US 03.02.01

As a patient, I want to edit the contact information in my profile.

US 03.03.01

As a patient or care provider, I want to, whenever a username is shown, be able to retrieve and see its corresponding contact information.

Searching

US 04.01.01

As a patient or care provider, I want to specify a set of keywords, and search for all problems or records that contains all the keywords.

US 04.02.01

As a patient or care provider, I want to specify a set of keywords, and search for all problems or records that are near a particular Geo-location.

US 04.02.01

As a patient or care provider, I want to specify a set of keywords, and search for all problems or records that are near a particular body-location.

Patient Assigned

US 06.01.01

As a care provider, I want to view a list of patients I am assigned to.

Care Provider

US 07.01.01

As a care provider, I want to add patients that I am assigned to.

US 07.01.02

As a care provider, I want to want to browse my patients problems.

US 07.01.03

As a care provider, I want to add comment records to my patients' problems

Offline behavior

US 08.01.01

As a patient, I want to add or edit problems and records while off the network, and have these changes synchronized once I regain connectivity.

Photographs

US 09.01.01

As a patient, I want to optionally attach one or more photographs as further viewable details to a record of mine.

US 09.01.02 (added 2018-04-06)

As a patient, I want the maximum number of photographs that can be attached to a record to be at least 10.

US 09.02.01

As a patient or care provider, I want to view any attached photograph for a record.

US 09.03.01

As a sys admin, I want each photograph to be under 65536 bytes in size.

Geolocation and Maps

US 10.01.01

As a patient, I want to specify a geo location on a map of a record.

US 10.02.01

As a patient or provider, I want to view any geo location for a record, on a map.

US 10.03.01

As a patient or care provider, I want to see a map of all records for a patient (that have locations).

Body-locations

US 11.01.01

As a patient, I want to upload at least front and back body-location photos so I may indicate where photo records were taken on my body.

US 11.02.01

As a patient, body locations are effectively a reference to a body-location photo and a point location on the photo.

US 11.03.01

As a patient, I should be able to have at least 2 body location pictures.

US 11.04.01

As a patient, when I view a body location it should be a clear indicator of a point on a body-location picture.

"Wow" Factor

Non-trivial, visible requirement(s) of your choice that fit with the app, on approval from your TA. This should be decided for the initial use cases.

An example could be a nice UI for the paper-cut-out-doll view. Another could be dealing with records (that have locations) from a map view.

Another wow factor could be encryption---if you can encrypt photos that are uploaded.

UC-01

Use case name: Sign in

Actors:

- patient
- care provider

Goal: log the user into APP and take them to their corresponding page

Triggers:

- user starts the APP

Preconditions:

- all user has the APP installed
- care provider has internet access

Postconditions:

- take patient to UC-P-01

- take care provider to [UC-C-01](#)
- take unregistered user to [UC-S-01](#)

Basic flow:

1. starts APP
2. enter user ID
 - 2.1. if user has no id, they can choose to sign up
 - 2.2 click “create an account” button
3. click “Sign in” button

Exception:

Exception 3: user ID not found

3.1: take user to sign up page (2.1)

[UC-S-01](#) ([US 03.01.01](#), [US 03.01.02](#), [US 03.01.03](#))

Use case name: sign up new account

Actors:

- new user

Goal: user creates a new account

Triggers: “create an account” button in [UC-01](#)

Preconditions:

- new user does not already have a user ID

Postconditions:

- new user ID created and saved by the APP
- take user to [UC-01](#)

Basic flow:

1. enter new user ID
2. enter email
3. enter phone number
4. choose a role from “patient” and “care provider”
5. click “Create an account” button

Exception:

Exception 1: user ID not valid (too short or already taken)

1.1: shows warning message to user

1.2: go back to Basic flow 1

UC-P-01 (US 03.02.01)

Use case name: view profile

Actors:

- patient

Goal: review patient profile, patient can select a specific body part to see its problems

Triggers:

- “Sign in” button in UC-01

Preconditions:

- patient is signed in

Postconditions:

- if patient sign out, take patient to UC-01
- if patient search a problem, take patient to UC-P-02
- if patient edit profile, a keyboard pops up and user can type in new information

Basic flow:

1. patient reads the page
 - a. review profile
 - b. reads body map
2. patient clicks one of the buttons/text input box
 - a. click “sign out” button to log out and go back to sign in page
 - b. click “edit” button to edit user profile
 - c. enter a body part number/keyword and click “search” button to search specific problems

Exception:

Exception 2c: user input invalid (no such number/keyword)

2.1: enter again

UC-P-02 (US 01.02.01, US 02.09.01)

Use case name: view problems

Actors:

- patient

Goal: show list of problems with titles, dates, and number of records

Triggers:

- “Search” button in UC-P-01

Preconditions:

- patient entered valid body part number/keyword

Postconditions:

- new problem is added: UC-P-03
- existing problem is edited: UC-P-04
- search an existing problem: UC-P-05
- show records of a problem UC-P-06
- a problem is deleted: UC-P-07
- a daily reminder is added

Basic flow:

1. read the history of problems
2. make a decision
 - a. add a new problem by clicking plus button
 - b. edit a problem by holding press on the problem icon, and choose “edit problem” option in the pop up menu
 - c. search problem(s) by typing keywords in the search box (nothing shows up if no matching results)
 - d. view records of a problem by clicking on the problem icon
 - e. delete a problem by holding press on the problem icon, and choose “delete problem” option in the pop up menu

- f. add a daily reminder by holding press on the problem icon, and choose “add daily reminder” option in the pop up menu

Exception:

UC-P-03 (US 01.01.01, US 01.01.02, US 01.01.03)

Use case name: add problem

Actors:

- patient

Goal: add a new problem with title, date & time, and description

Triggers:

- plus button in UC-P-02

Preconditions:

-

Postconditions:

- a new problem is added to list of problems

Basic flow:

1. enter a problem title
2. set date & time with pop-up calendar and clock
3. write description of the problem
4. confirm changes
5. new problem added to list of problems

Exception:

Exception 1: **problem title already exists** or too long (limit 30 chars)

1.1: go back to flow 1, choose another title

Exception 3: description too long (limit 300 chars)

3.1: go back to flow 3, write description again

UC-P-04 (US 01.01.02, US 01.01.03, US 01.03.01)

Use case name: edit problem

Actors:

- patient

Goal: make change on an existing problem

Triggers:

- “edit” button for a problem

Preconditions:

- there is at least one problem

Postconditions:

- edited problem updated to the list of problems

Basic flow:

1. edit title
2. edit date & time
3. edit description
4. confirm changes
5. problem updated

Exception:

Exception 1: **problem title already exists** or too long

1.1: go back to flow 1, choose another title

Exception 3: description too long

3.1: go back to flow 3, write description again

UC-P-05 (US 04.01.01-02)

Use case name: search problem

Actors:

- patient

Goal: search a problem from list of problems

Triggers:

- press enter key after typing the problem’s keyword(s) in the text input box at the top

Preconditions:

-

Postconditions:

- problems matching with keywords shown in the list

Basic flow:

1. user taps on search box
2. enter keywords (can include geo-location keywords)
3. press “enter” key on virtual keyboard
4. search results show up (nothing shows up if no matching problems)

Exception:

UC-P-06 (US 02.01.01, US 10.03.01)

Use case name: view record

Actors:

- patient

Goal: view list of records of a problem

Triggers:

- click on a problem icon in UC-P-02

Preconditions:

- there is at least one problem

Postconditions:

- slideshow mode
- one specific record is shown
- a new record added
- geo-locations for all records shown

Basic flow:

1. user reads the list of records
2. user can make a decision
 - a. user can use slideshow mode by clicking “slideshow” button

- b. user can go to one record by clicking on record icon and can see its geo-location on a map
- c. user can add a record by clicking add record button ([UC-P-08](#))
- d. user can see geo-locations for all records

Exception:

UC-P-07 (US 01.04.01)

Use case name: delete problem

Actors:

- patient

Goal: delete a problem from the list of problems

Triggers:

- “delete problem” option in the pop up menu after holding press on a problem in [UC-P-02](#)

Preconditions:

- at least one problem is in the list

Postconditions:

- the problem selected is deleted from the list

Basic flow:

1. hold press a problem on the list
2. click “delete problem” option in the pop up menu

Exception:

UC-P-08 (US 01.01.02, US 01.01.03, US 01.05.01, US 02.02-06.01, US 02.08.01, US 09.01.02, US 09.03.01, US 10.01.01)

Use case name: add record

Actors:

- patient

Goal: add a detailed record to a problem

Triggers:

- add record button in [UC-P-06](#)

Preconditions:

- current record is in the scope of a problem

Postconditions:

- a new record with title, body location, picture, geo-location, date & time, and description is added to record list

Basic flow:

1. click add record button
2. enter title
3. choose to add picture(s)
4. take a photo
5. save the photo
6. add geo-location
7. add date & time
8. write a description
9. confirm changes
10. new record added

Exception:

Exception 2: title too long

2.1: re-enter tile

Exception 5: total number of photo more than 10 or photo size exceeds 65536 kb

5.1: refuse to save photo

Exception 7: description too long

7.1: do 7 again

[UC-P-09](#) ([US 10.01.01](#), [US 01.01.02](#), [US 01.01.03](#), [US 09.01.02](#))

Use case name: edit record

Actors:

- patient

Goal: make change(s) to an existing record

Triggers:

- “edit” button on the record icon in UC-P-06

Preconditions:

- there is at least one record in record list

Postconditions:

- edited record with new information is updated

Basic flow:

1. click on edit record button
2. edit title (user may leave it unchanged)
3. edit picture/photo (user may leave it unchanged)
4. edit geo-location (user may leave it unchanged)
5. edit date & time (user may leave it unchanged)
6. edit comment (user may leave it unchanged)
7. confirm changes
8. record updated

Exception:

Exception 2: title too long

2.1: do 2 in Basic flow again

Exception 3: total number of photo more than 10 or photo size exceeds 65536 kb

3.1: refuse to save photo

Exception 6: comment too long

6.1: do flow 6 again

UC-P-10 (US 04.01.01, US 04.02.01-02)

Use case name: search record

Actors:

- patient

Goal: search a record from list of record

Triggers:

- enter the record's keyword in the text input box at the top

Preconditions:

-

Postconditions:

- records matching with keywords shown in the list

Basic flow:

1. user press on search box
2. enter keywords
3. press "enter" key on virtual keyboard
4. searching results show up (nothing shows up if no matching records)

Exception:

UC-C-01

Use case name: **view patient(6.01.01)**

Actors:

- Care providers

Goal: The care provider can view the list of patients that he assigned to, also he is able to find the add button and searching bar on the screen

Triggers:

- **Care provider log into the app**

Preconditions:

- the care provider need to connect to the internet, know his own id and the list of patient assign to him

Postconditions:

- If the add button is clicked, take the care provider to UC-C-03
- If some key words are typed in the searching bar, take the care provider to UC-C-02

Basic flow:

1. The care provider logged in
2. The system will show the searching bar at the top of the screen and provide the list of patient names with the edit button and a add patient button on the button to the user

Exception:1.if there is no patient assign to this care provider display “none”

UC-C-02

Use case name: add patient 7.01.01

Actors:

- care provider

Goal: care provider can add a new patient to his list of assigned patient

Triggers:

- care provider click the add button on the right side of the screen(UC-C-01)

Preconditions:

- The system will pop up a new activity that allow the care provider to add a patient

Postconditions:

- After the system received the input from the user, it append the new information into care provider's list.
- The care provider will have the the patient USER ID showing on view patient (UC-C-01)

Basic flow:

- 1.The care provider click on the add button in view patient (UC-C-01)

- 2. The system generate a new activity that allow the care provider to input Patient User ID,Dates and a Description of the patient.
- 3. The care provider input these informations
- The system generate a new tag for the new patient in the view patient screen (UC-C-01)

Exception:

- 1.The minimum user id should be at least 8 characters
- 2. The description should be no more than 300 words otherwise the information will not be solved

US-C-03

Use case name: browse patient problems (US 07.01.02)

Actors:

- care provider

Goal: The care provider will find the target patient by typing the user id in the searching bar and browse the patient problems

Triggers:

- The care provider starts to type in the searching bar

Preconditions:

- There is a list of patient who have already assign to the care provider

Postconditions:

- Display the target patient

Basic flow:

- 1.The care provider type the target patient's user id in the searching bar
- 2.The system finds the target patient and display him on the top of the list
- 3.The care provider click the target patient
- 4.The system will show a list of the problem that the patient has
- 5.For specific problems the care provider will type the key words for the problem
- 6.The system will find the specific problem
- 7.The care provider click into the problem
- 8.The system display information includes gps location, picture of the past

records

Exception:

- 1.There could be no such patient so display "none"

US-C-04

Use case name: add comment records to patient problems (US 07.01.03)

Actors:

- care provider

Goal:

- The care provider will be able to add comment to patient's problem

Triggers:

- The care provider find the specific problem he wants to comment

Preconditions:

- The patient has new record updated

Postconditions:

- The record of the patient will be updated and the the system will pop a message to indicate the patient that his record has been commented

Basic flow:

- 1.The care provider noticed that there a new record to be commented after he find the specific problems
- 2.The care provider click the problem he needs to be commented
- 3.The system will show all the record of the problem in a list and pop up a window which ask the care provider to type in comment
- 4.The care provider type his comment and submit the comment
- 5.The system update the comment to the list of the problem

Exception:

- 1.There could be no such patient so display “none”