



# MyEpi

## Contact Management UX Analysis

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V1.0.2

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## **Preliminary Info**

Based on Product Overview 1.0.

Based on App version 2.0 pre-release.

# 1. Analysis

## 1.1. Overview

### Contact Definition

Contacts of the system is the connection between epileptic profile users and kin profile users. The primary purpose of this connection is to inform the kin users of events regarding the epileptic user. These are events which the kin users should act upon to aid the epileptic users. In the future, the kin users may also be given access to the epileptic user's state – information regarding their use of the system which does not directly require action from the kin user.

### Contact Management Definition

The Contact Management feature handles everything regarding the Creation, Deletion, Updating, and overview of contacts – both for epileptic users and kin users.

### Main Objective

Allow epileptic users to add contacts who will be contacted during a seizure and who can be contacted regarding medicine alerts.

### Current Data Structure

Contacts are based on two data objects – epileptic profile and kin profile.

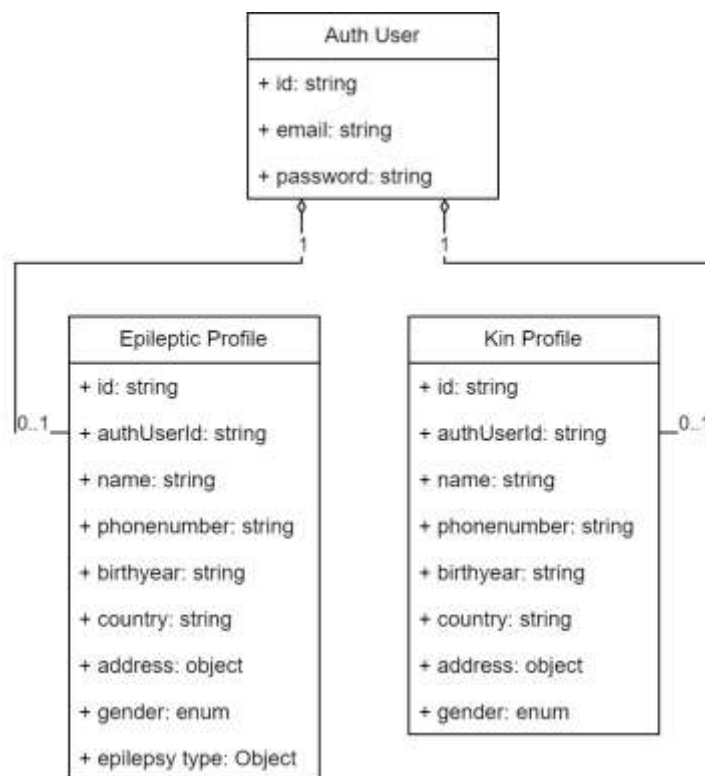


Figure 1: Current data structure

## 1.2. Quality Attributes

The main qualities of the flow have been chosen to be Modifiability, Usability, and Security.

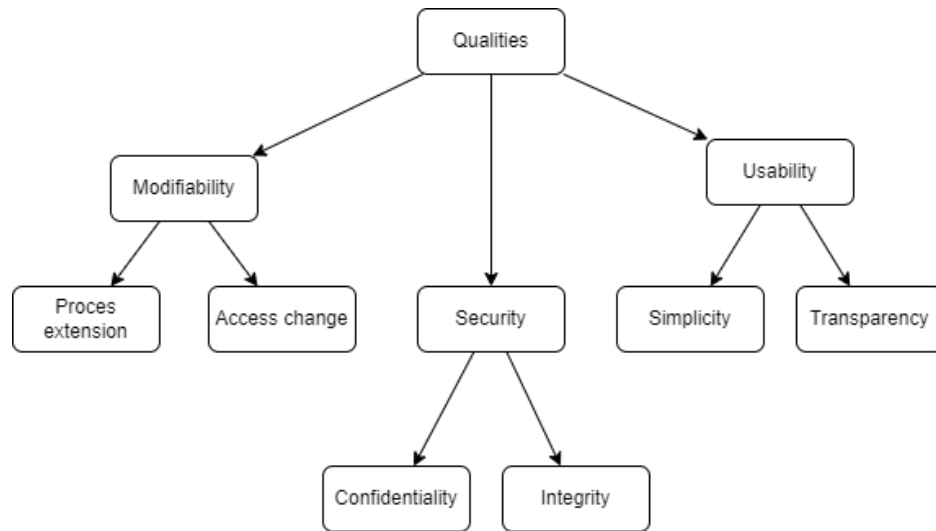


Figure 2: Quality attribute tree

### Security

Security refers to the safety of the systems operation and the safety of user data. The selected sub qualities are Confidentiality and Integrity. Confidentiality refers to whether data is accessible to users who do not have rights them. Integrity refers to whether you can be sure that data in the system is what you think it is, e.g., if it has been changed by someone who should not have access.

### Usability

Usability refers to the ease of use of the system. The selected sub qualities are Simplicity and Transparency. Simplicity refers to how easy it is for the user to perform tasks within the system. Transparency refers to how easy it is to understand what is going on in the system – measured by how few misunderstandings the users have.

### Modifiability

Modifiability refers to how easy it is to modify the system for future requirements. The selected sub qualities are Process extension and Access change. Process extension refers to how easy it is to add steps to the current process. This can be added validation, extra data collection, etc. Access change refers to how easy it is to change what different users are allowed to do. This includes setting access for new user types.

## 1.3. Requirement Elicitation

### 1.3.1. Functional Requirements

F1	Contact Creation
F1.1.	Epileptic user should be able to request a creation contact
F1.1.1.	Should be able to reference kin user by phone number
F1.1.1.1.	Should be informed if phone number not connected to kin profile
F1.1.1.2.	Should be able to create contact request without connected profile
F1.1.1.3.	Should be informed of limitations of contact without connected profile
F1.1.1.4.	Should be able to send SMS with app link to phone number if not connected to profile
F1.1.1.5.	Should be informed if number is user's own, belongs to epileptic user, or is already a contacts
F1.1.2.	Should be able to give name and relationship status to contact
F1.1.3.	Should be able to send SMS with Facebook group link to phone number
F2	Contact Update
F2.1.	Should be able to change name and relationship status
F2.2.	Should be able to change phone number if not connected to profile
F2.3.	Should be able to send extra SMS with app link to phone number if not connected to profile
F3	Contact Deletion
F3.1	Epileptic user should be able to delete contact
F3.2.	Kin user should be able to accept/reject contact request
F3.2.1	Should be able to reset response after it has already been set
F4	Contact Overview
F4.1.	Epileptic user should be able to see list of contacts
F4.1.1.	should be able to see name, relationship, and phone number of contact
F4.1.2.	should be able to see status of contact
F4.2.	Kin user should be able to see list of contacts
F4.2.1.	should be able to see name of epileptic user and status of contact
F4.3	Epileptic user should be notified of contact status changed
F4.4.	Kin user should be notified of contact request

### Considerations

What happens if the phone number is tied to an epileptic profile?

Should the referenced contacts name be auto filled?

If the profile already exists, is it necessary to send SMS with Facebook link?

Should kin be able to delete contact or just reject them?

Should rejected contacts still be shown for kin and epileptic profile?

Should kin profile have access over which notifications they receive from which contact?

Should epileptic user be notified of a profile created with the phone number of one of its contacts?

### 1.3.2. Quality attribute considerations

#### **Confidentiality**

The data values “name” and “phone number” of the kin profile has been made public by this flow, which affects the confidentiality of this data. It should be clear in the api what data is publicly available and what is private.

#### **Integrity**

The epileptic user passes access to sensitive information to the kin user. To ensure integrity, the epileptic user must therefore be sure that the kin user is who they think they are. This should be ensured by showing the actual name of the kin user’s profile.

#### **Process extension**

The current contact only collects few information to define the contact. This is likely to be changed by increasing the data on the contact object. It should therefore be thought into the development process.

As the kin user may be given more access to the epileptic user’s data in the future, the epileptic user will most likely be given some controls over what they want the kin profile to have access to. This should be considered in the development.

#### **Access change**

As a contact is a shared object between two profiles, it is likely that the permissions of what each profile can modify will change in the future. This should be considered in the development.

## 2. Design

### 2.1. User flows

The functional features have been divided into 4 contact flows. Each functional requirement should be apparent in at least one of the 4 flows.

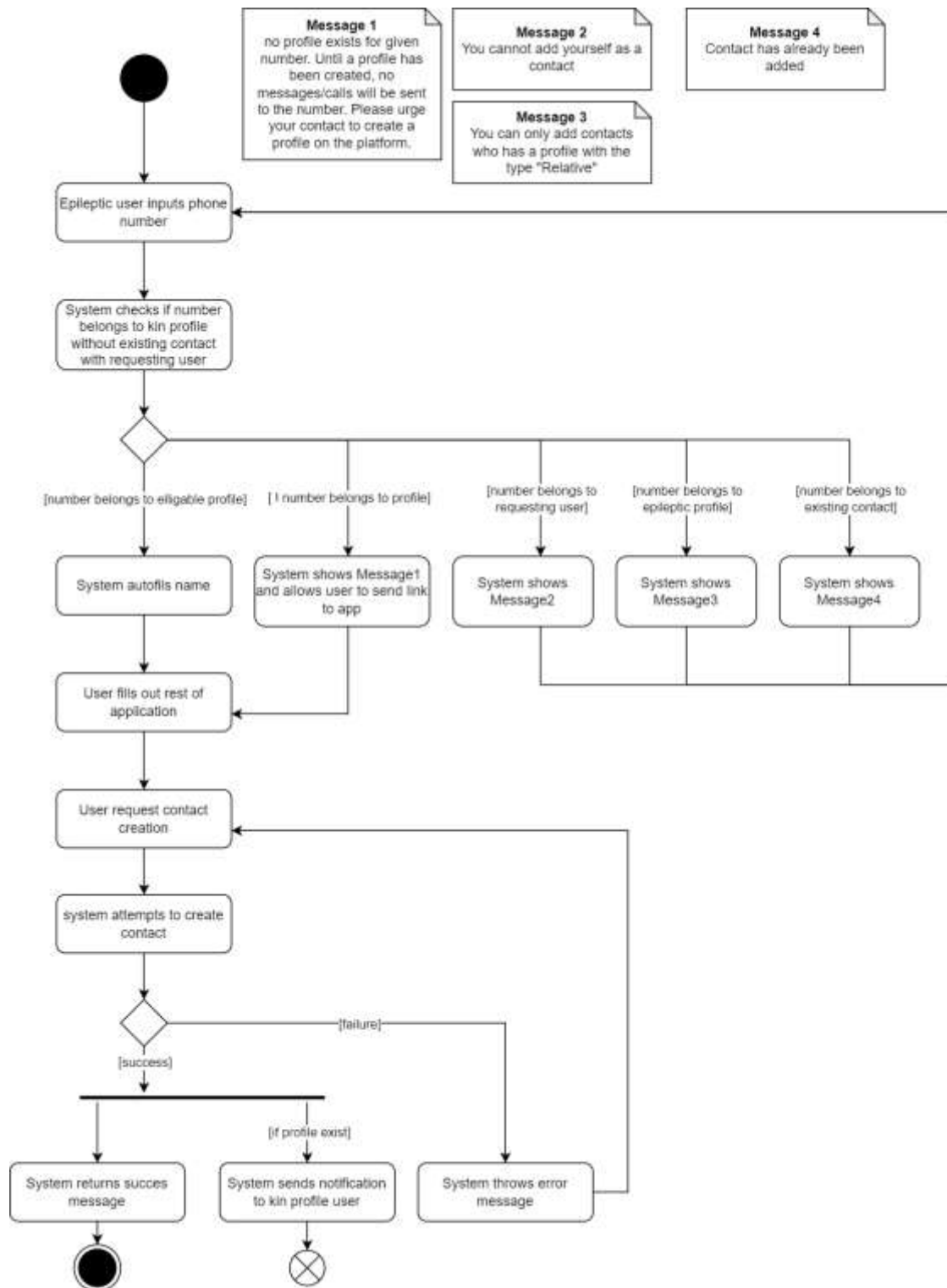


Figure 3: Contact request creation activity diagram

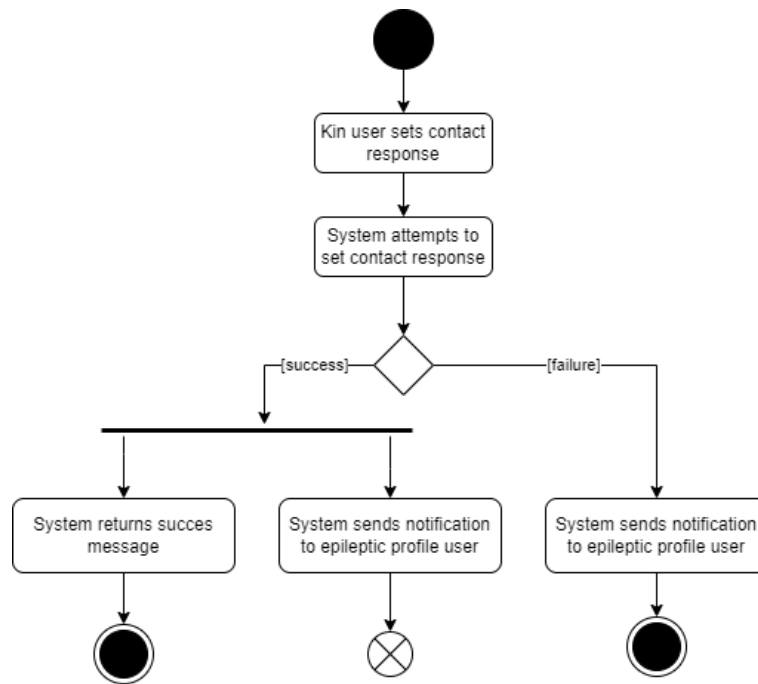


Figure 4: Contact request response activity diagram

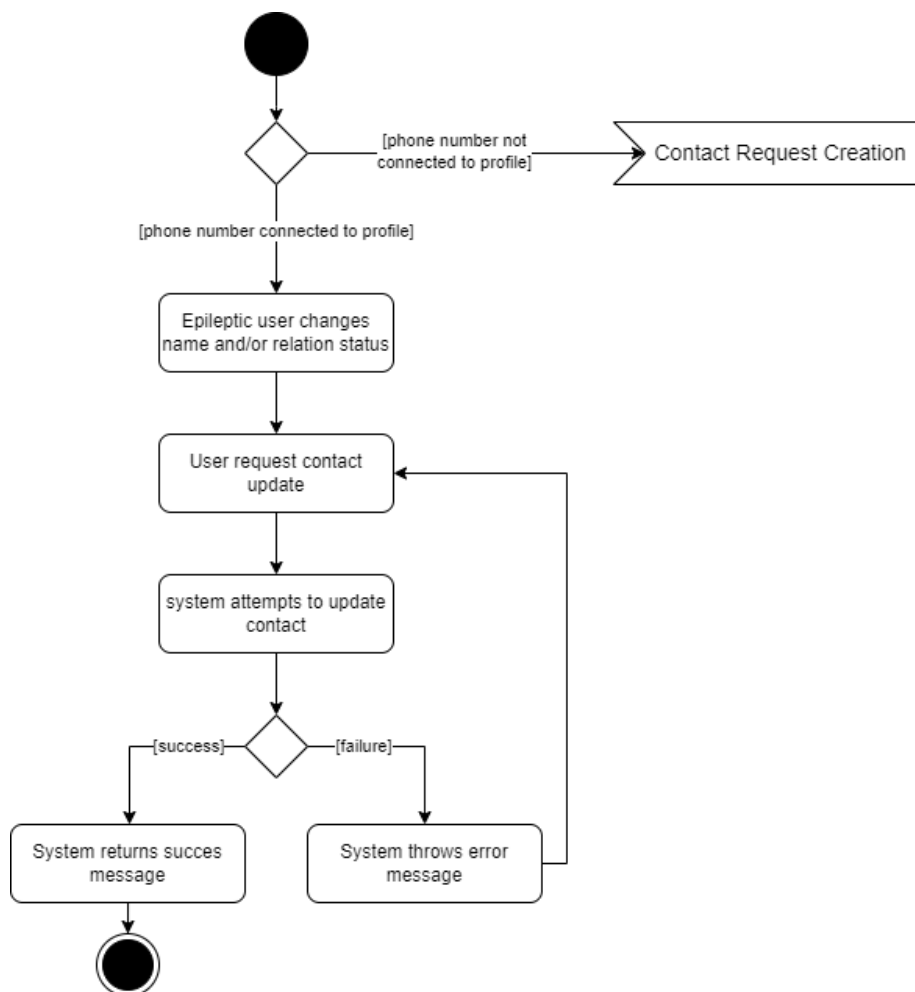


Figure 5: Contact update activity diagram



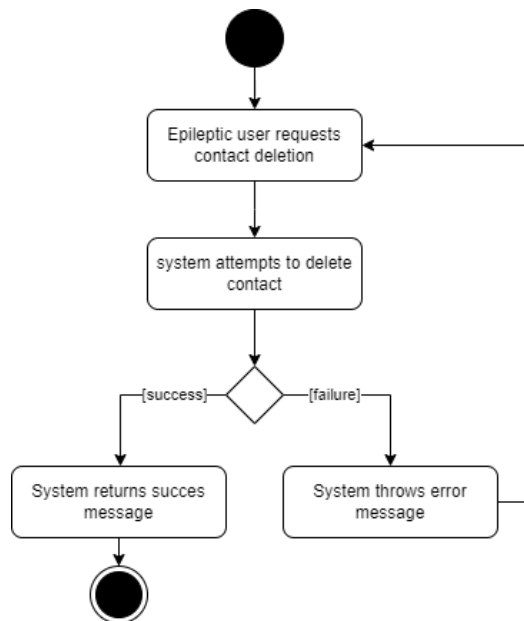


Figure 6: Contact deletion activity diagram

## 2.2. UI Structure

### 2.2.1. Kin User

Kin users have a simple overview of the contact requests made to them. It only shows the name of the requesting user and the status of the request. When the user presses a contact, they will be able to accept or reject the contact. This will change the status and send a notification to the requesting user. The response can be changed after it has already been set.

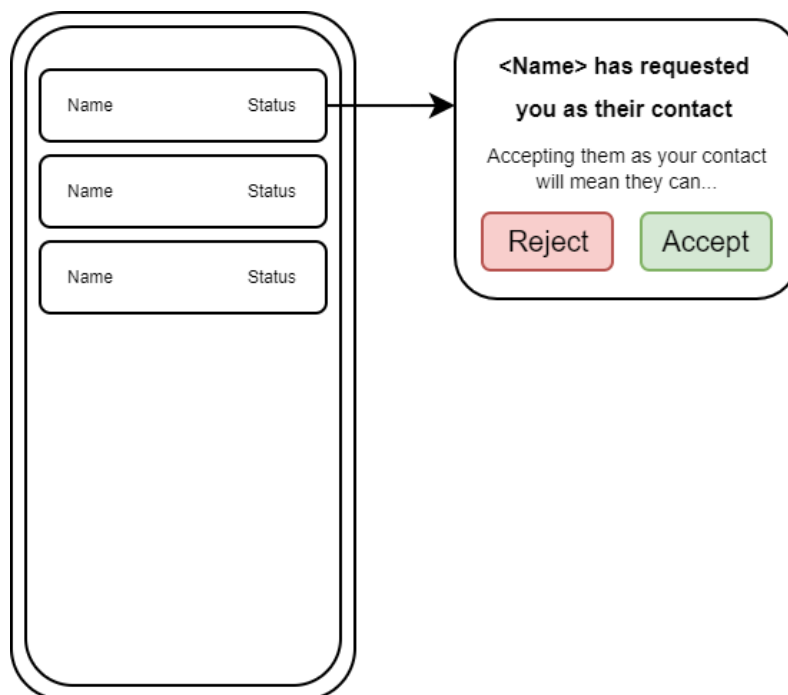


Figure 7: Kin user sketch

### 2.2.2. Epileptic User

The epileptic user has an overview of the contacts and contact requests they have made. They have the ability to create new contacts by pressing the “create contact” button or to update/delete a contact by pressing the contact list item.

Pressing the “create contact” button will take the user to the create contact page. Here they can input the phone number. If a profile exists for the phone number, the input name field will be filled with the profiles name. If a profile does not exist, the user will be shown an info box informing them, that no messages/calls will be sent until a profile has been created. If the number is their own or belongs to an epileptic user, the “create contact” button will be disabled, and an info box will appear informing them of why.

Pressing the contact will take them to an update view. Here they can change the name and relation status. If the phone number is not connected to a profile, they can change the phone number. Then, the page will behave like the create contact page. Otherwise, they will only be able to change the input name and relation status. In any case, they will be able to delete the contact.

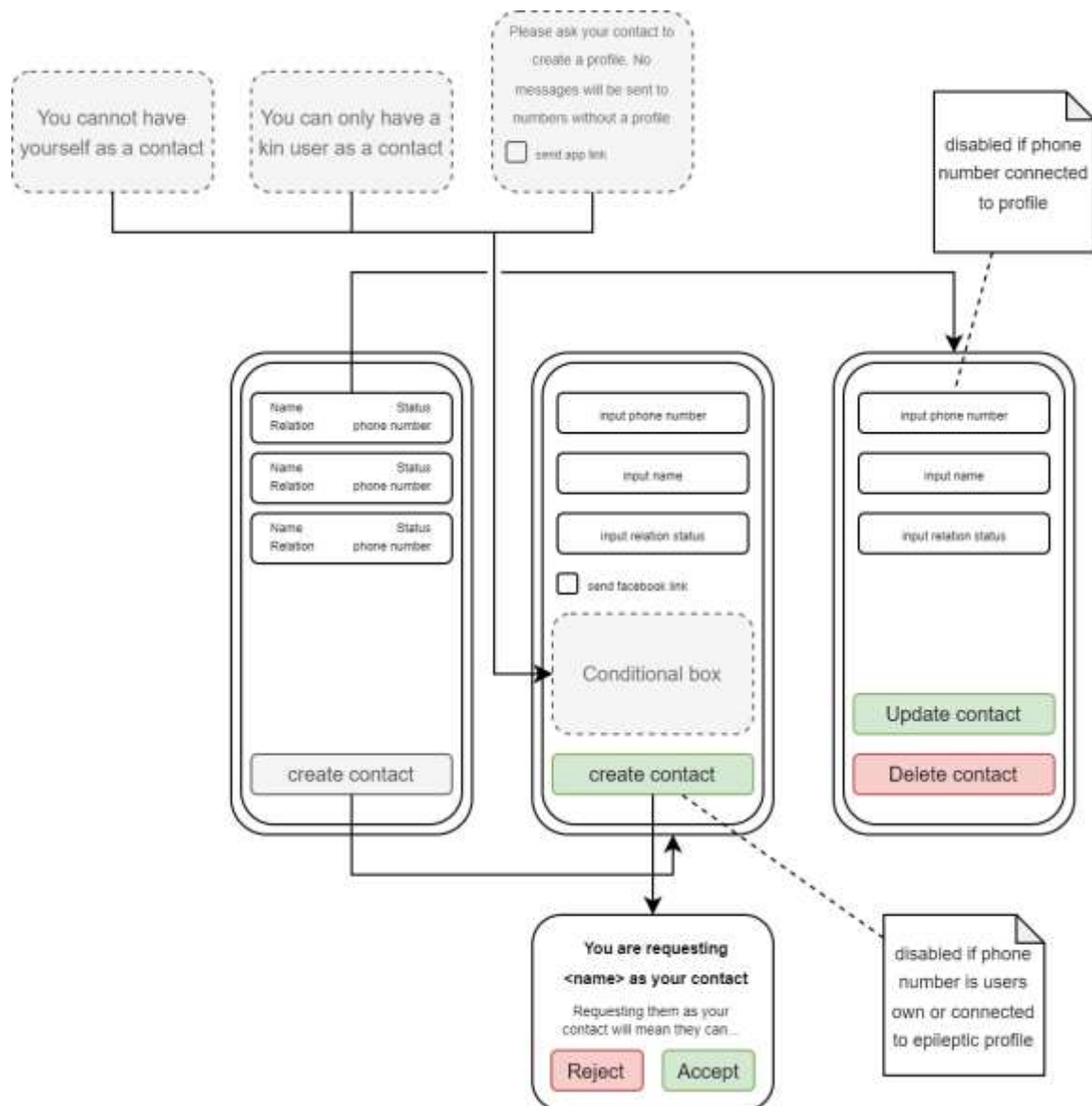


Figure 8: Epileptic user sketch

## 2.3. Data Structure

The feature requires the added object “Contact”. This has a reference to the connected epileptic profile and an optional reference to the Kin profile. It also adds the enums “Relation” and “Status”.

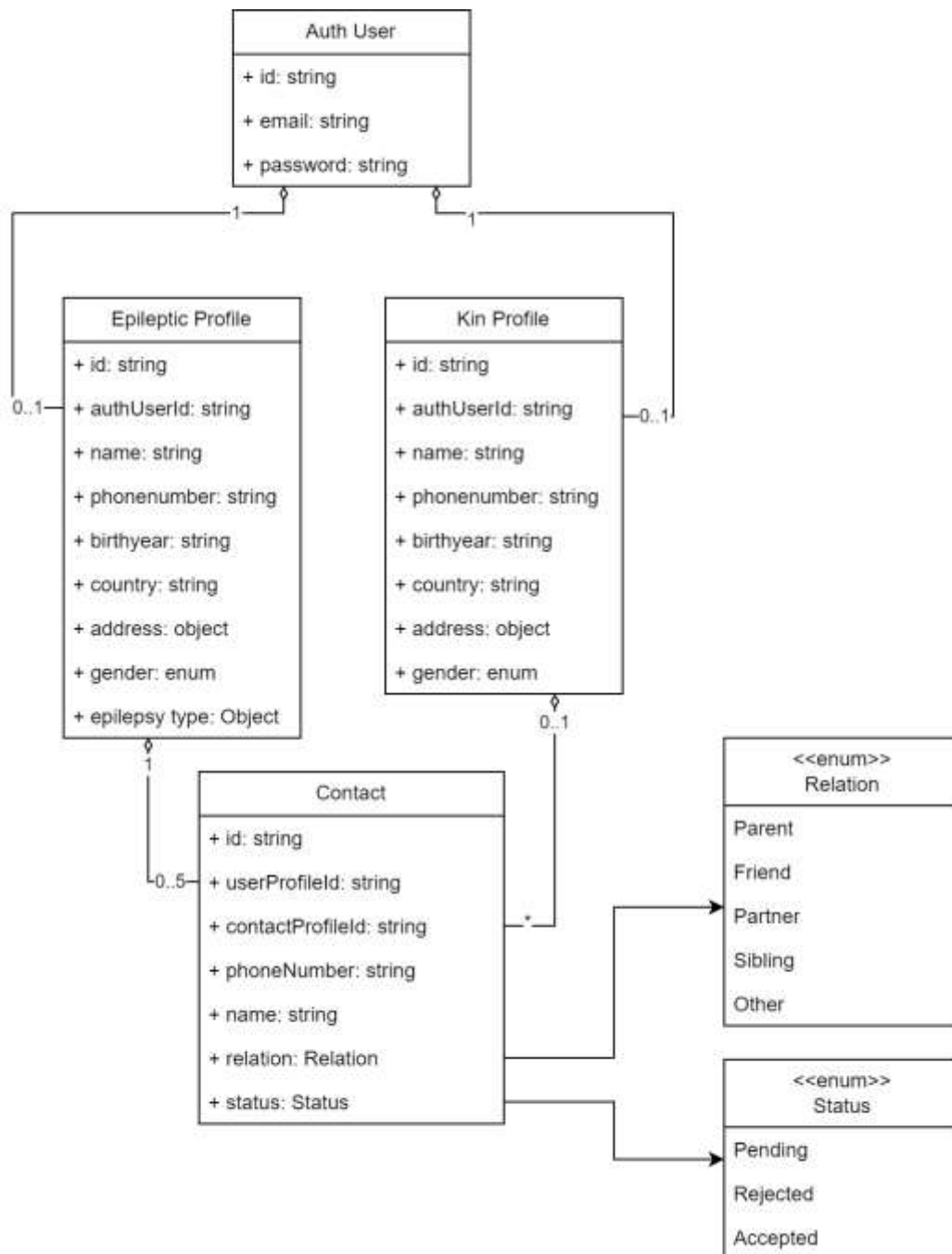


Figure 9: New data structure

## 3. Estimation

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### 3.1. Backend

#### **Create Contact request**

completed

#### **Update contact**

Needs to guard against changing phone number when profile is connected.

Estimation: 1h

#### **Delete contact**

Completed

#### **Respond to contact request**

Completed

#### **Search kin profile with phone number**

Should return a public version of the kin profile matching a given phone number

Estimation: 1h

#### **Search epileptic profile with phone number**

Should return a public version of the epileptic profile matching a given phone number

Estimation: 1h

#### **Get contacts of epileptic user**

Completed

#### **Get contacts of kin user**

Completed

#### **Notification on request creation**

Whenever a kin profile responds to a contact request, a notification should be sent to the epileptic profile.

Estimation: 1h

#### **Notification on request response**

Whenever a contact request is created, if the phone number matches a kin profile, a notification should be sent to the kin profile.

Estimation: 1h

#### **App store routing endpoint**

Endpoint which looks up the OS of the phone calling it and navigates to the MyEpi app on the respective Appstore. Possibly not necessary due to universal deep-link.

Estimation: 0h to 2h

### 3.2. Frontend

#### **Epileptic user contact list page**

Completed

#### **Kin user contact list page**

Should be separated from the existing epileptic user contact list page.

Estimation: 2h

#### **Epileptic users create/update contact page**

Needs modification

Estimation: 8h

### 3.3. Total

The changes necessary are very entangled with existing features. This makes the estimation less reliable, as more existing features may need modification than what is visible before the development.

Estimation: 17h

## 4. Future Improvements

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### **Epileptic User Permission Control**

When kin profiles become able to view different data on epileptic user contacts, the epileptic users should be able to toggle what the kin profile is able to see.

### **Kin User Permission Control**

Kin users should be able to toggle what epileptic users are able to send them notifications about. Some users may want to be informed of seizures, but do not want to be spammed with medicine alert notifications.

### **Parental Control**

An epileptic user should be able to grant parental control to a kin user. This should allow the kin user more permission control of what the epileptic user can do and should give the kin user access to create e.g., medicine alerts.