



Assignment Solution:

Designing Inclusive User Interfaces

Chosen User Group: Users with hearing impairments.

Digital Product: Seizure Detection App



Analysis of Cognitive and Perceptual Characteristics:

- Users with hearing impairments may have difficulty perceiving auditory cues or alarms.
- They may rely heavily on visual information and tactile feedback.
- Considerations we include visual alerts, text-based notifications, and alternative communication methods.

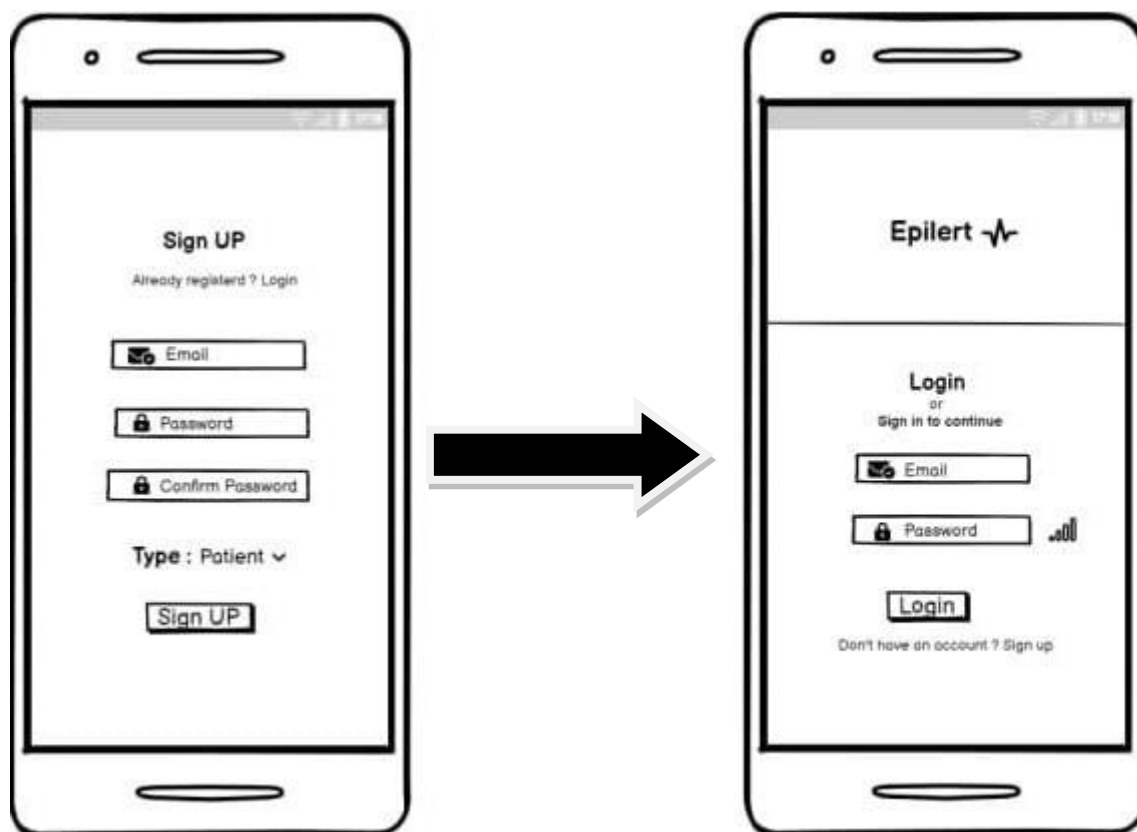
Design Concept:

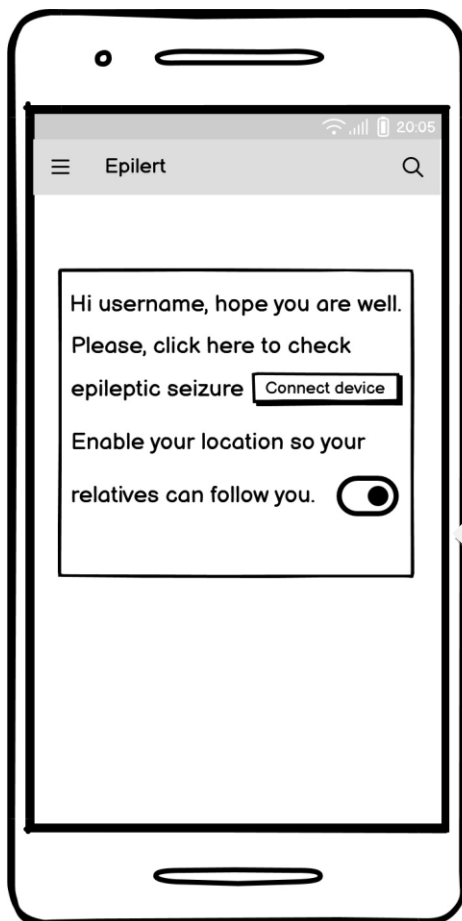
- Redesigning the seizure detection app to prioritize accessibility for users with hearing impairments.
- Implementing visual and tactile feedback mechanisms to supplement auditory alerts.
- Providing customizable alert settings and alternative communication options.



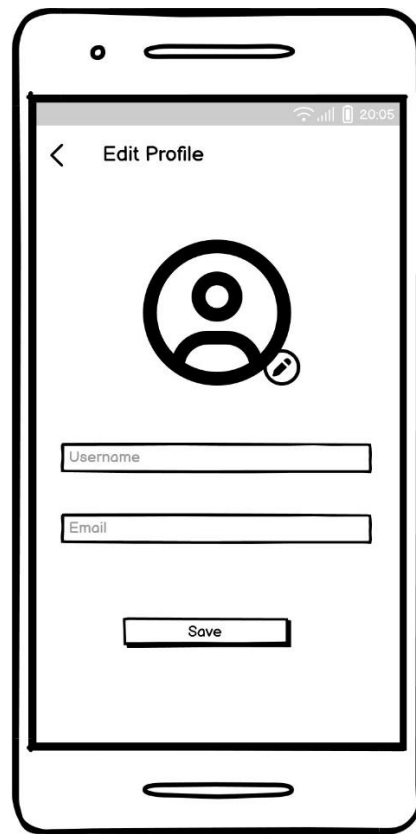
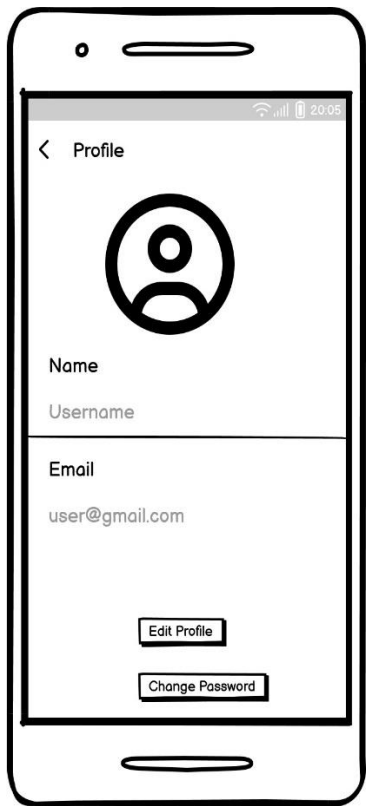
Design Prototype:

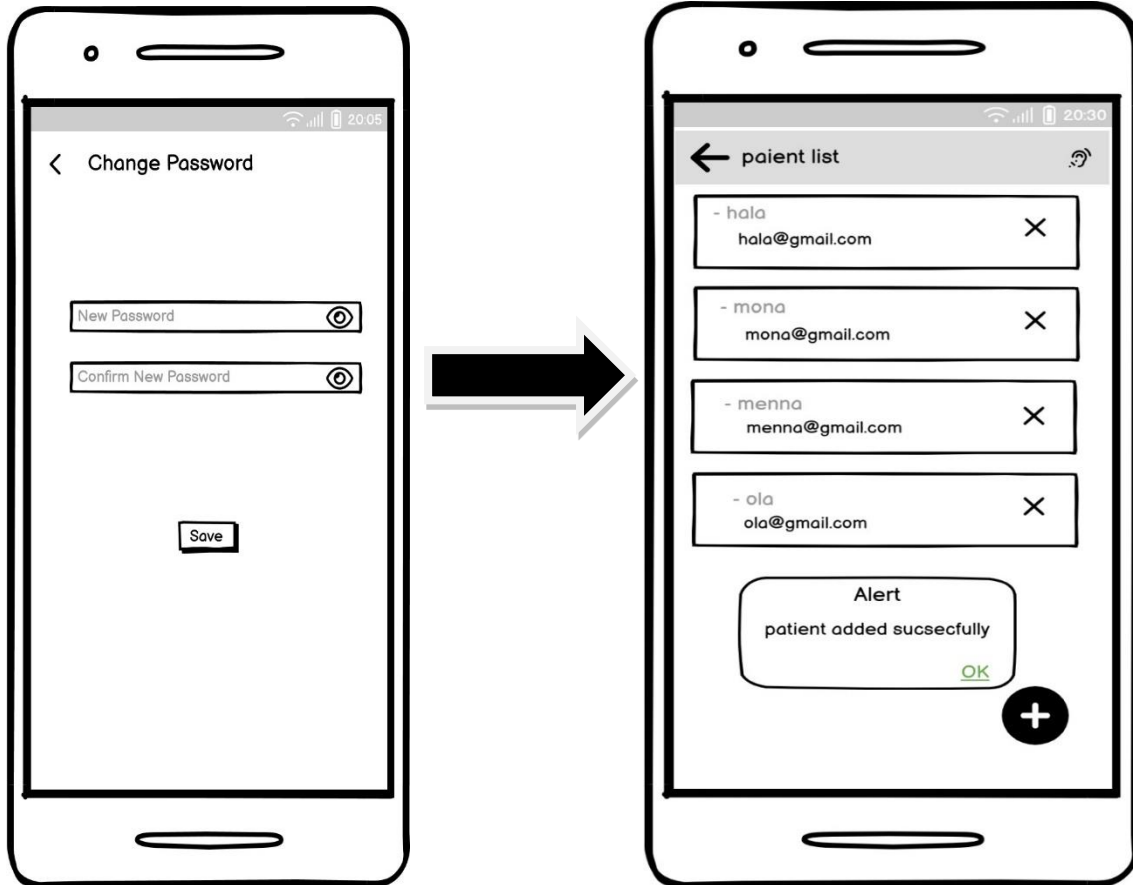
- 1- Sign up page.
- 2- Login page.
- 3- Registration page.
- 4- Edit profile.
- 5- Change password page.
- 6- Home page.
- 7- Advice page.
- 8- Patient list page.
- 9- Relative list page.
- 10- About us page.
- 11- Feedback page.

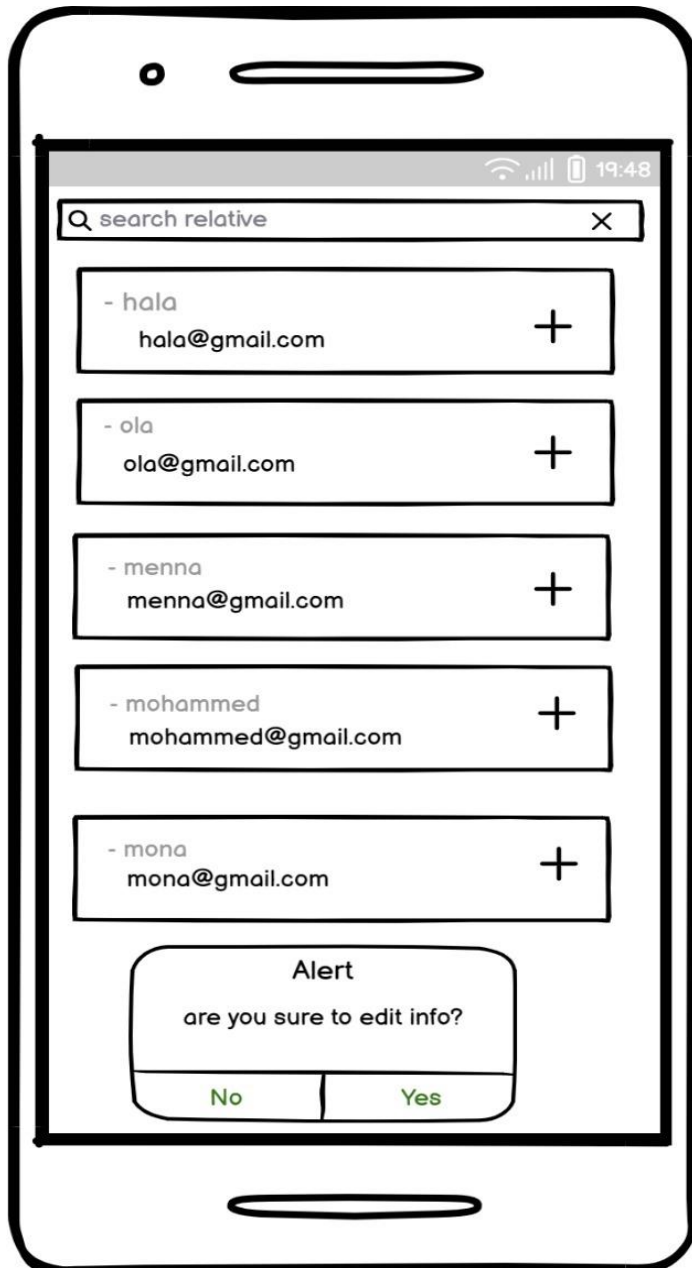




Strong password



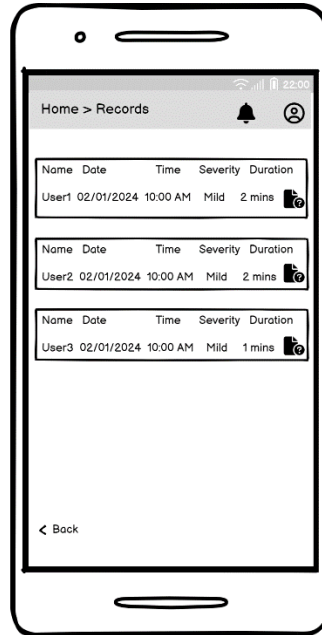




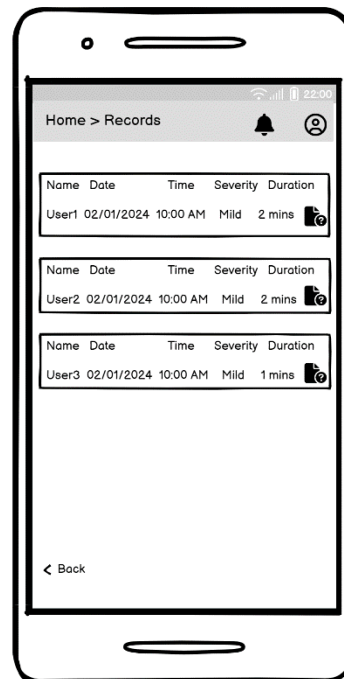


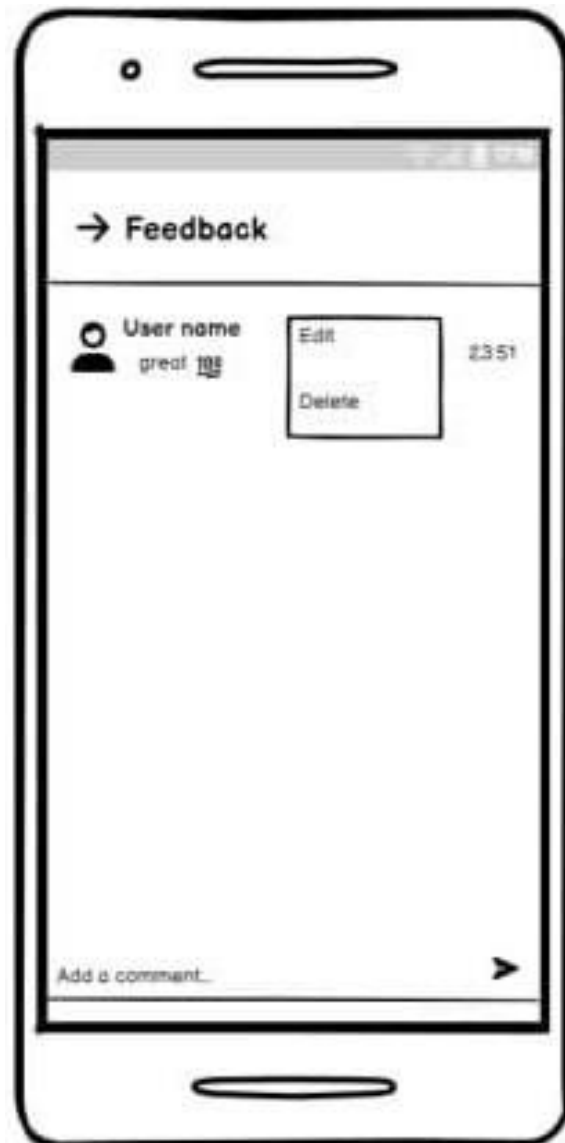
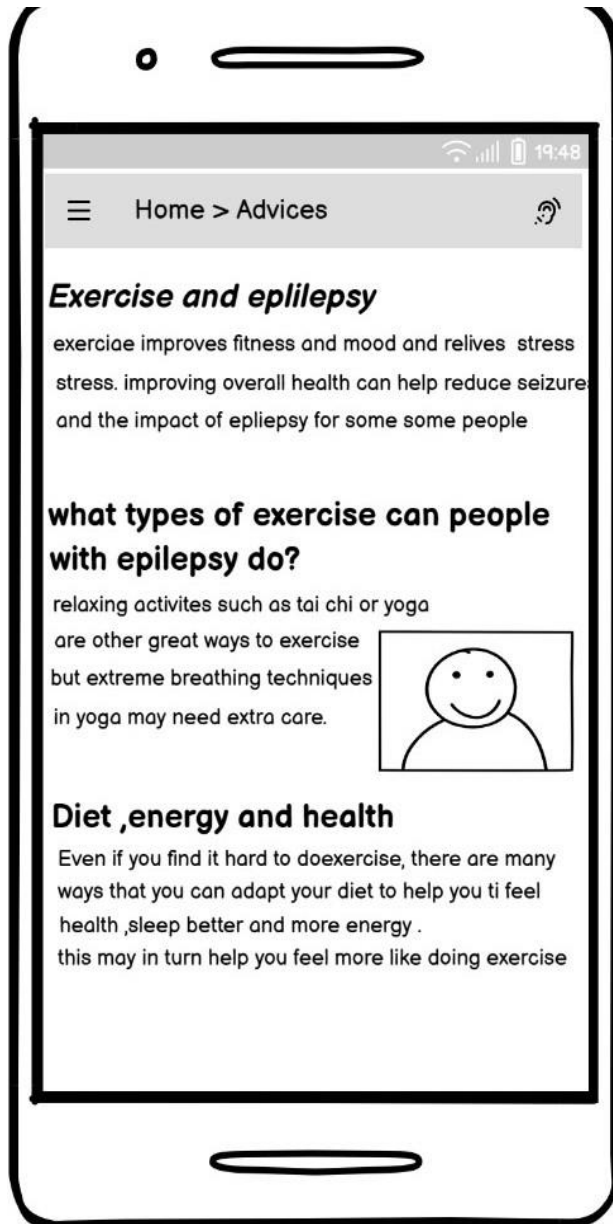


patient records for relative



patient records

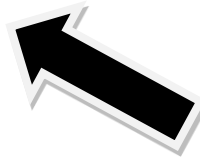
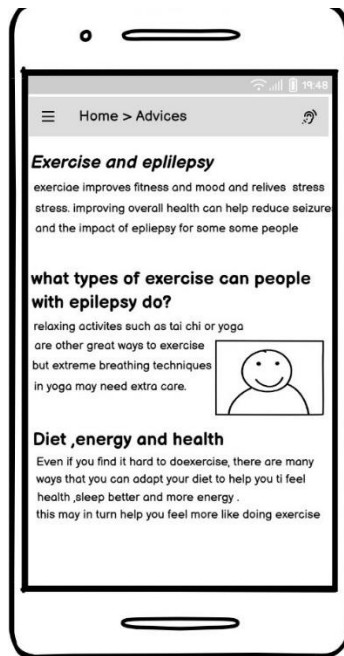




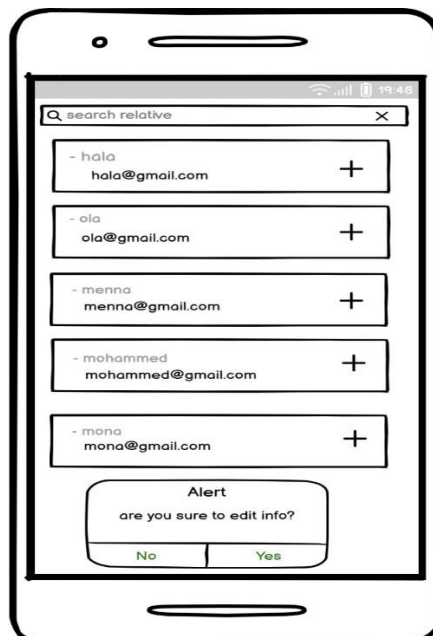


"Some examples in the prototype have been applied to the 8 golden rules:"

- 1- Strive for consistency & offer informative feedback.

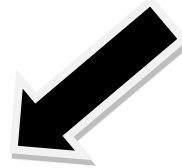


- 2- Design dialogs to yield closure.





3- Prevent errors.

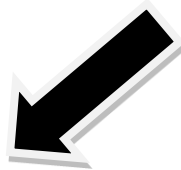
A screenshot of a mobile application's 'Change Password' screen. The screen has a white background with a black border. At the top, there is a back arrow and the title 'Change Password'. Below the title, there are two password input fields. The first field contains the text '1234' and has an eye icon to its right. The second field also contains '1234' and has an eye icon to its right. Below the input fields, there is a text message: 'Please enter a valid password min 6 characters'. At the bottom of the screen, there is a 'Save' button.

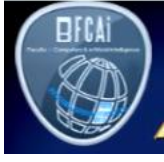
4- Permit easy reversal of actions.

A screenshot of a mobile application's 'patient list' screen. The screen has a white background with a black border. At the top, there is a back arrow and the title 'patient list'. Below the title, there is a list of four patient entries. Each entry consists of a name and an email address, followed by a close button (X). The entries are: 'halo' with 'halo@gmail.com', 'mona' with 'mona@gmail.com', 'menna' with 'menna@gmail.com', and 'ola' with 'ola@gmail.com'. At the bottom of the screen, there is an 'Alert' box with the text 'patient added sucsefully' and an 'OK' button. A plus sign (+) is located at the bottom right of the screen.



5- Keep users in control.





Design Rationale:

- Visual and tactile feedback mechanisms supplement auditory alerts to ensure users with hearing impairments can effectively receive important notifications.
- Customizable alert settings and alternative communication methods provide flexibility to accommodate individual preferences and needs.
- Clear, concise text explanations and visual representations enhance understanding and usability for users with hearing impairments.

Reflection:

- Redesigning the seizure detection app to prioritize accessibility for users with hearing impairments required careful consideration of visual and tactile feedback mechanisms.
- This assignment highlighted the importance of designing inclusive user interfaces that accommodate diverse user needs and preferences.
- Moving forward, exploring additional features such as customizable vibration patterns and alternative communication methods can further enhance the accessibility and usability of the app for users with hearing impairments.