



Echos

“One place to learn and translate American Sign Language”

User-Interface Design Document

Group 11

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Design Principles used throughout the application:

1. **Consistency:** The consistency in any application allows the user to easily interact with the application with much more ease, the user knows how to interact with the same types of functionalities since they are built in a way that is consistent throughout the application.
2. **Feedback:** The feedback given by the application to the user helps them to get a confirmation if their action was successful or not, this principle can be implemented in many forms. There are many examples of this principle throughout our application, which we will discuss alongside their page.
3. **Visibility:** This principle suggests that the functions in an application should be as visible as possible, this helps the user to notice them sooner and utilize them properly whenever needed.
4. **Affordance:** This principle helps the user to understand the functionalities associated with a component. It makes it easier for the user to know the consequences of the action they are about to perform.

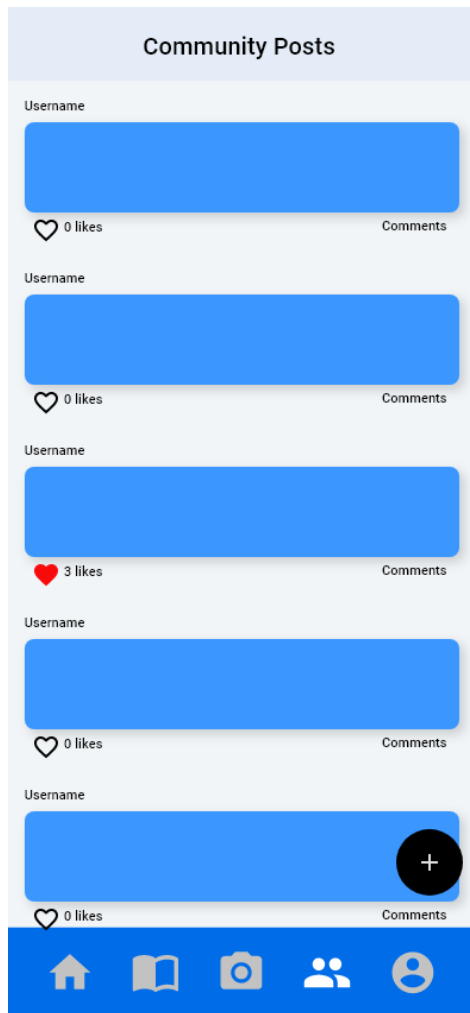
Usability Heuristics used throughout the application:

1. **Error Prevention:** Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.
2. **Recognition rather than recall:** Minimize the user's memory load by making elements, actions, and options visible. The user should not have to remember information from one part of the interface to another. Information required to use the design should be visible or easily retrievable when needed. Humans have limited short-term memories. Interfaces that promote recognition reduce the amount of cognitive effort required from users.
3. **Aesthetic and minimalist design:** Interfaces should not contain information which is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.

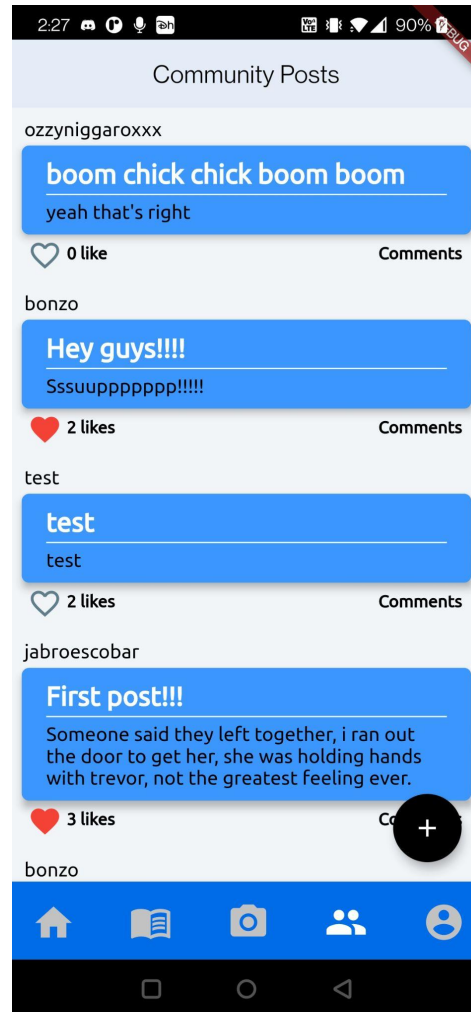
Page: Community Post - Posts

Photos:

_____ In AdobeXd



Implementation



Design Principles Used:

- **Consistency:**

- The heading on every page displays the title of the page, the title itself is a small description of what the page is about. This not only helps a user understand what the page they currently are on.
- The structure of every post is consistent, there is a title in white followed by a white divider, and finally the content of the post provided by each user. The username of this user is provided right above the post on the left side, the like button and like counter below the post on the left, and the button to go to the comments page on the right.
- The navigation bar at the bottom of every page is exactly the same(except where it isn't needed), it has the same icons placed on the same locations throughout the entire application.

- **Feedback:**

- The like button which is in the shape of a heart changes its style from an outlined icon with red borders to a filled icon with a red color. This gives the user a confirmation that their task of liking or disliking a post has been completed successfully.
- The navbar displays the icon corresponding to the page brighter compared to the rest of the icons, indicating that this is the page the user is currently viewing.
- All the buttons on this page give feedback to the user when clicked. This includes the comment button, the floating add icon, and the posts themselves.

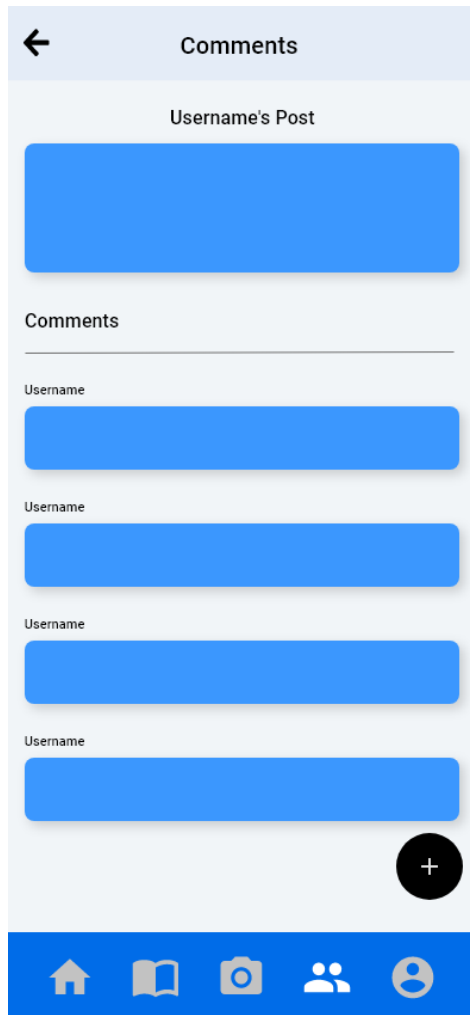
- **Affordance:**

- The like button in the shape of a heart suggests that its functionality would be to love or like something it is associated with, in our case it is a post.
- The floating add button on the bottom right corner of the page above the navigation bar has a “plus” sign on it, this tells the user that the functionality of this button is to add something. And since they are on the “Community Post” page, it is quite intuitive that the button is there for adding a new post.
- The navigation bar at the bottom has icons that clearly suggest where they will lead, the camera suggests that this will open the camera.

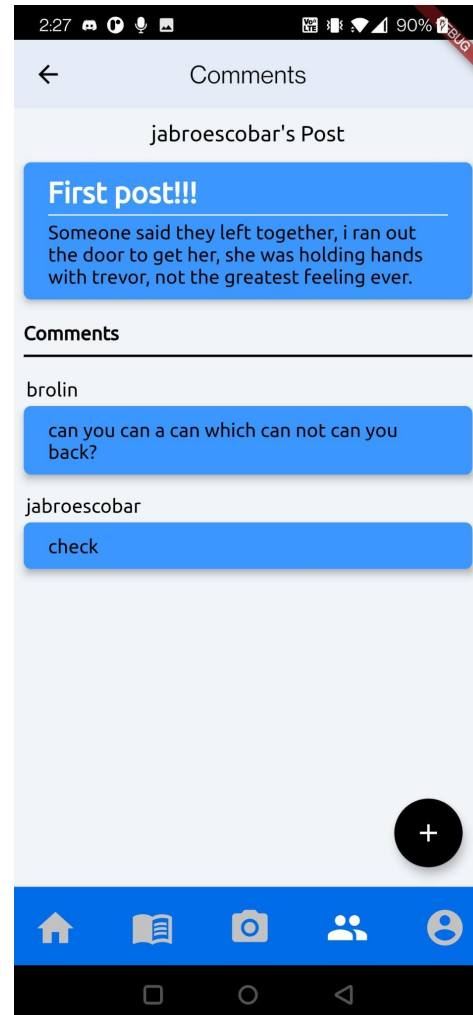
Page: Community Post - Comments

Photos:

_____ In AdobeXd



Implementation



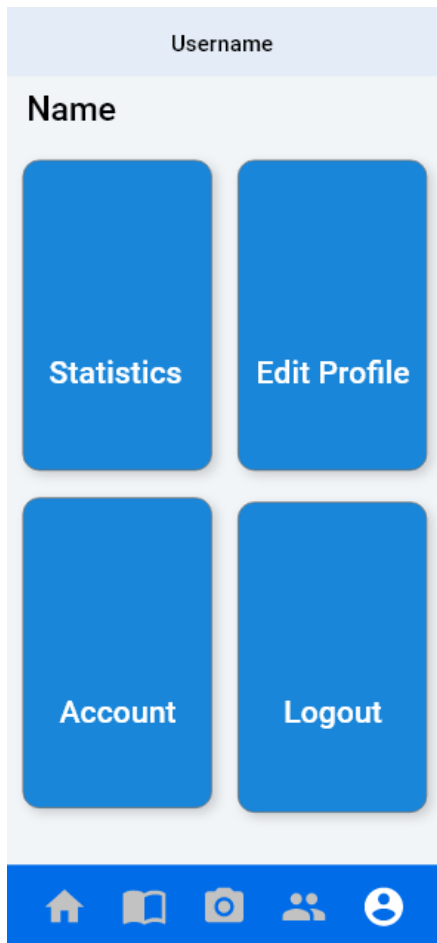
Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The structure of every comment is consistent, the main body of a comment consists of the actual comment only. The username of the user who posted this comment appears right above it on the left side.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
 - The back button is consistent throughout the application, it appears on all the pages which aren't directly accessible from the navigation bar.
- **Feedback:**
 - The navbar displays the icon corresponding to the page brighter compared to the rest of the icons, indicating that this is the page the user is currently viewing.
 - All the buttons on this page give feedback to the user when clicked.
- **Affordance:**
 - The floating add button on the bottom right corner of the page above the navigation bar has a "plus" sign on it, this tells the user that the functionality of this button is to add something. Here, it represents adding a comment.

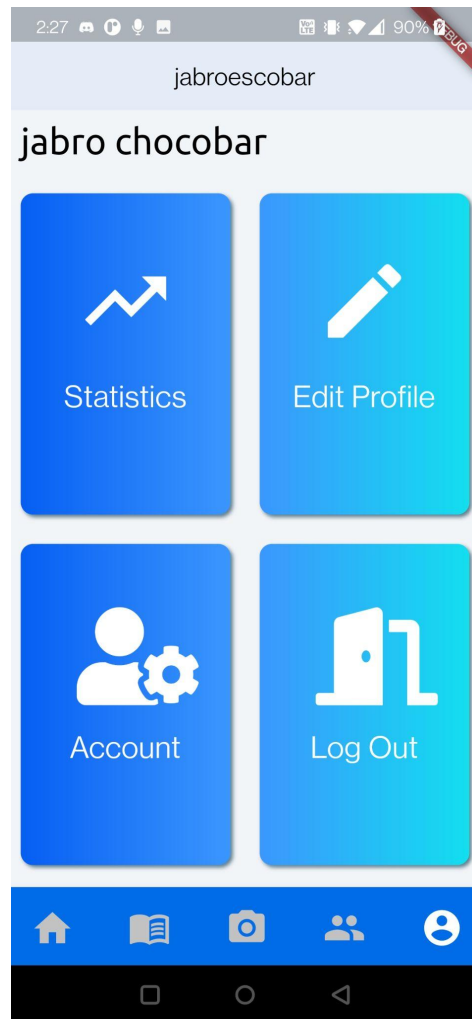
Page: User Profile Page

Photos:

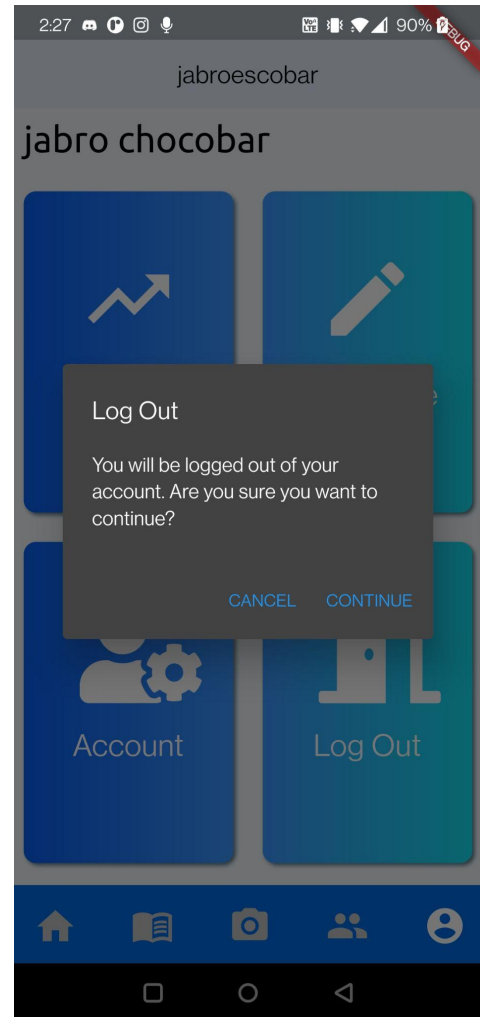
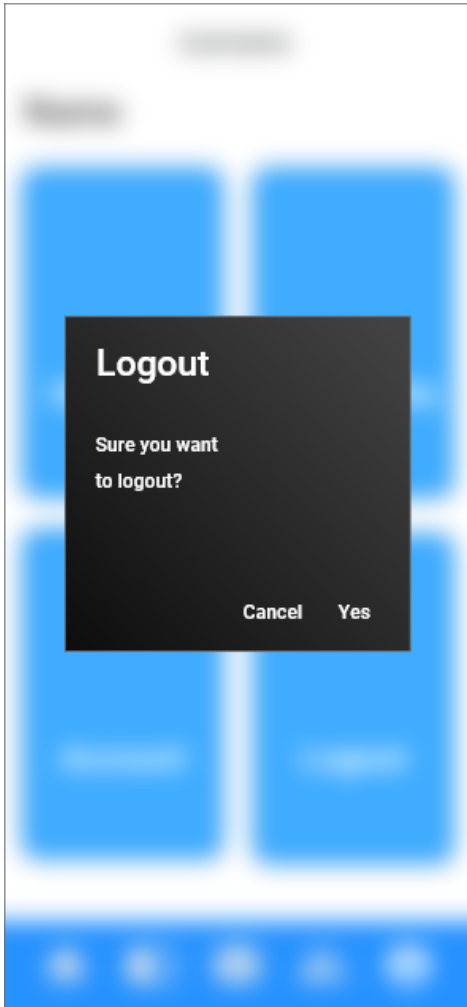
_____ In AdobeXd



Implementation



Error Prevention



Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The structure of every card on this page is the same, first the icon related to the functionality that each page provides when the card is clicked. Followed by, the name of the page.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
- **Feedback:**
 - The navbar displays the icon corresponding to the page brighter compared to the rest of the icons, indicating that this is the page the user is currently viewing.
 - All the buttons on this page give feedback to the user when clicked.
- **Affordance:**
 - The icon used for each card tells the user what these cards are for, the pencil/pen suggests that this button will let the user edit something.
- **Visibility:**
 - The cards are big enough for the user to notice and are easy to click on too because of that.

Usability Heuristics:

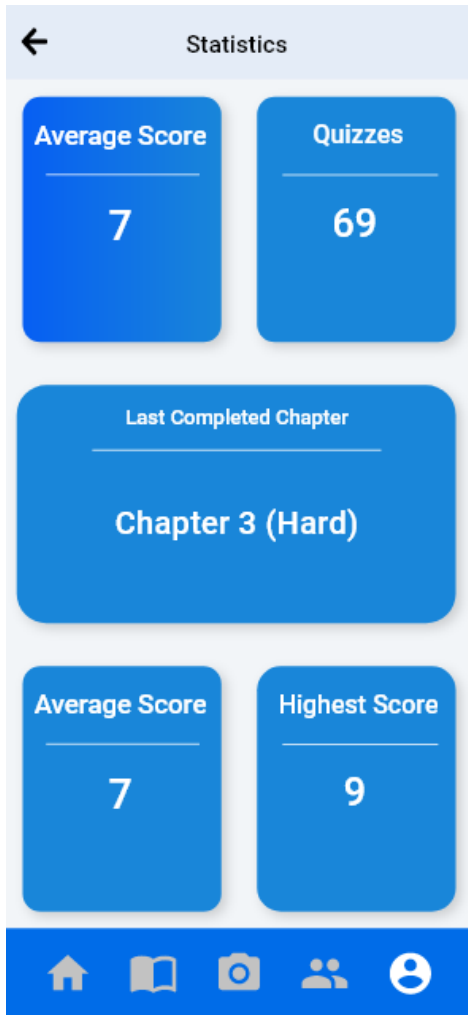
- **Error Prevention:** An error message is sent to the user confirming the consequences of the task that they are about to perform, it is there to prevent any accidental log out by the user.
- **Aesthetic and minimalist design:** This page is minimalistic, it provides only the four options. Instead of clustering a lot of information together, the space has been divided to display only four options.

Interaction Type: Menu Selection

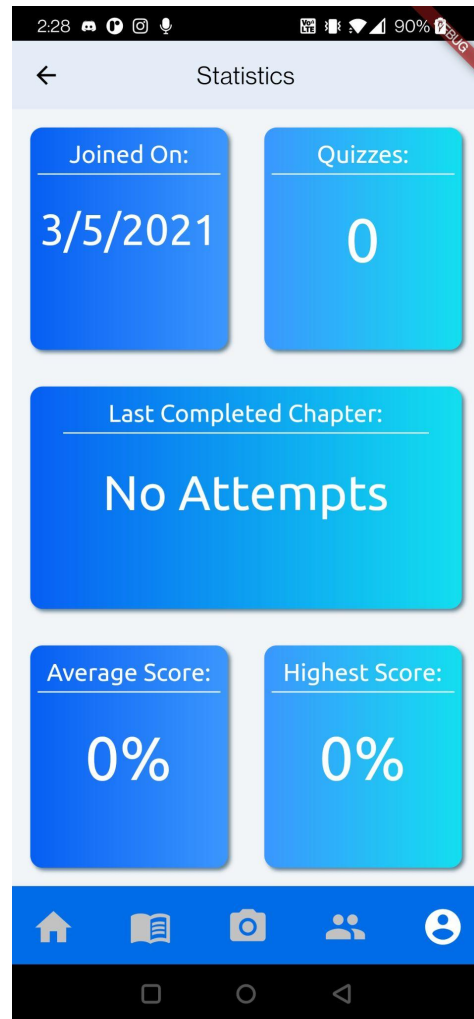
Page: User Profile Page - Statistics

Photos:

_____ In AdobeXd



Implementation



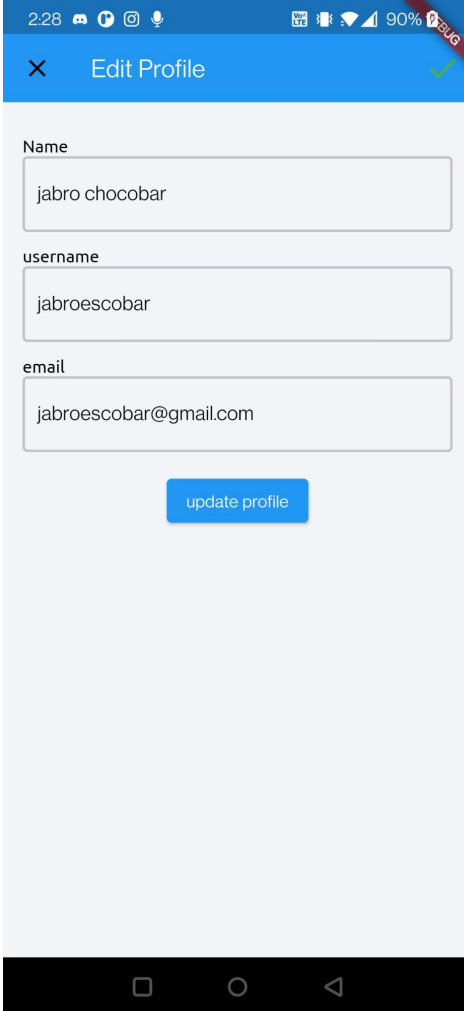
Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The structure of every card on this page is the same, first the title, followed by a white divider with the content related to the title.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
 - The back button is consistent throughout the application, it appears on all the pages which aren't directly accessible from the navigation bar.
- **Feedback:**
 - The navbar displays the icon corresponding to the page brighter compared to the rest of the icons, indicating that this is the page the user is currently viewing.
 - All the buttons on this page give feedback to the user when clicked.
- **Affordance:**
 - The icon used for each card tells the user what these cards are for, the pencil/pen suggests that this button will let the user edit something.

Page: User Profile Page - Edit Profile

Photos:

Implementation



2:28 90%

✕ Edit Profile ✓

Name

jabro chocobar

username

jabroescobar

email

jabroescobar@gmail.com

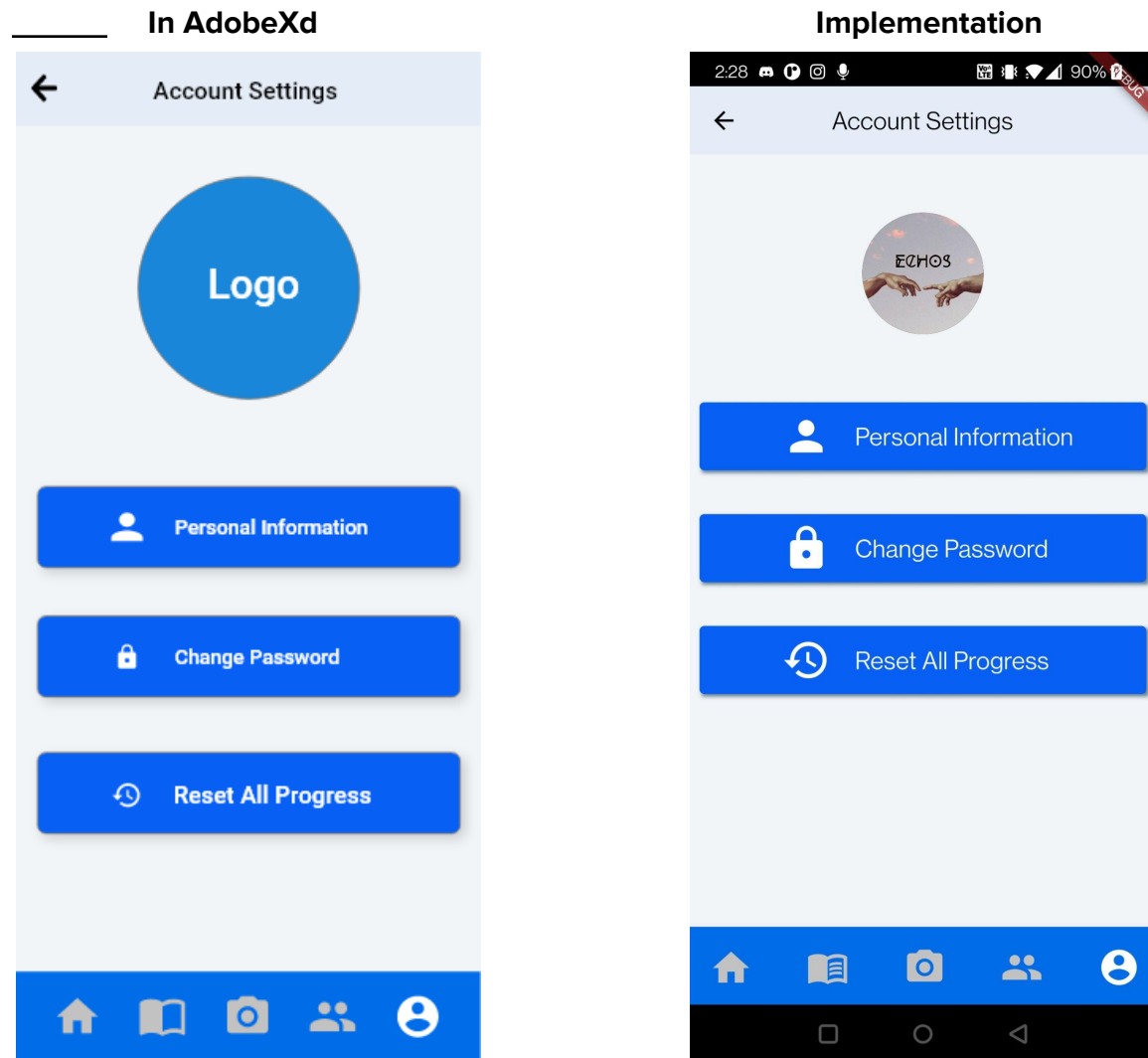
update profile

Design Principles:

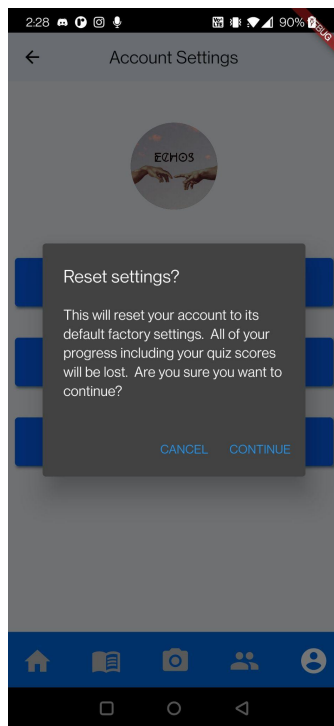
- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The form used here is the same one used for the signup page, this makes it easier for the user to understand what to enter and where to enter in order to edit their profile.
- **Feedback:**
 - While entering the details in the text fields, the border changes its color indicating that the system is ready to accept the input from the user.
 - All the buttons on this page give feedback to the user when clicked.
- **Affordance:**
 - The save icon used at the top right corner tells the user that its functionality of that button is to save the new details entered by the user.
 - The cross button on the top left corner tells the user it will let the user close this page.

Page: User Profile Page - Account Settings

Photos:



Error Prevention



Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The back button is consistent throughout the application, it appears on all the pages which aren't directly accessible from the navigation bar.
 - The structure of the buttons is consistent throughout the page, with an icon depicting the functionality related to the button followed by the name of the functionality.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
- **Feedback:**
 - All the buttons on this page give feedback to the user when clicked.
- **Affordance:**
 - All the icons used for the buttons clearly depict the functionality related to them, making it easier for the user to get an idea of the consequences of their actions.
- **Visibility:**
 - The cards are big enough for the user to notice and are easy to click on too because of that.

Usability Heuristics:

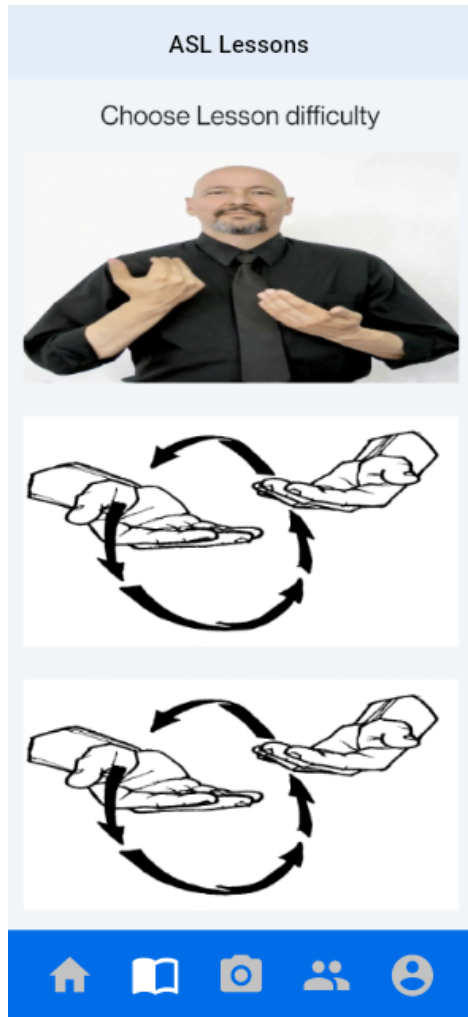
- **Error Prevention:** An error message is sent to the user confirming the consequences of the task that they are about to perform, since resetting all the progress they have made in the tutorial section is important data, it would be dangerous if they accidentally deleted it.

Interaction Style: Menu Selection

Page: Tutorial - Choosing Difficulty

Photos:

_____ In AdobeXd



Implementation



Design Principles:

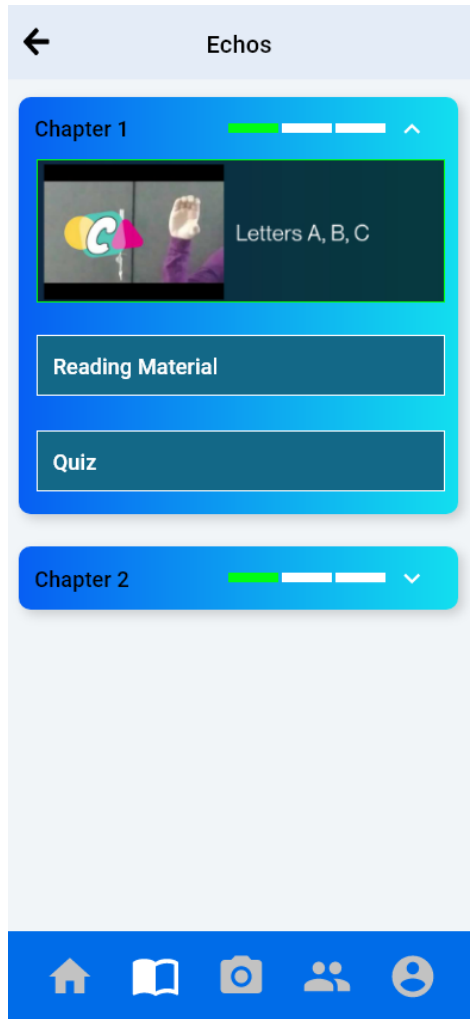
- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The three different difficulties are depicted in sign language using a gif.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
- **Feedback:**
 - All the buttons on this page give feedback to the user when clicked.
- **Visibility:**
 - The gif cards are big and hence easy to click on.
- **Affordance:**
 - The gifs provide the user with an idea of which difficulty each button will lead to.

Interaction Style: Menu Selection

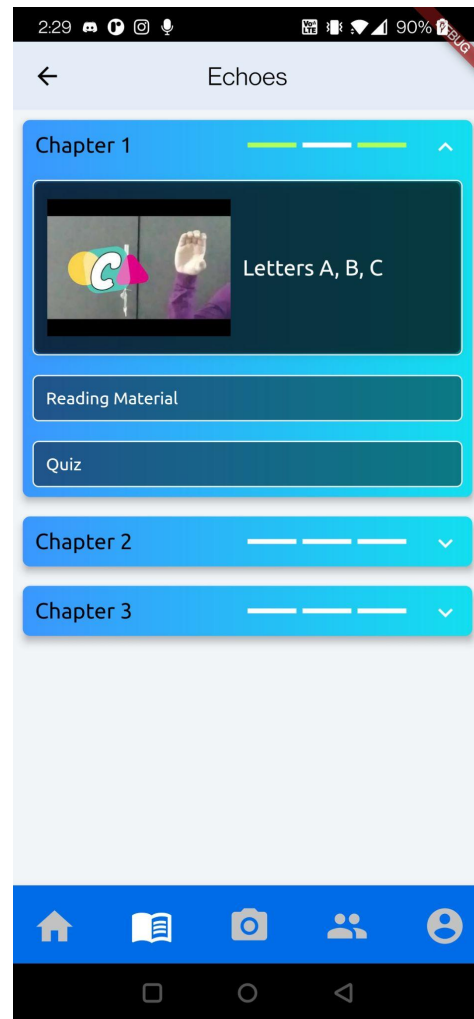
Page: Tutorial - Chapter List

Photos:

In AdobeXd



Implementation



Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The three different difficulties are depicted in sign language using a gif.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
 - The structure of a chapter will be the same throughout the page, it is a dropdown menu that includes the video related to the tutorial, followed by a link to the page of the reading material, and lastly the quiz that covers the content of this chapter.
- **Feedback:**
 - All the buttons on this page give feedback to the user when clicked.
 - When you complete one of the sections of a chapter, there is a tracker attached to the chapter which shows the section cleared by changing its color.
- **Visibility:**
 - The video's thumbnail is big and hence clearly visible, it is easier to click because of its size and so are the rest of the buttons on this page.
- **Locus of control:**
 - The easy navigation to any section of any chapter from this page provides the user a sense of being in control of the interface.

Usability Heuristics:

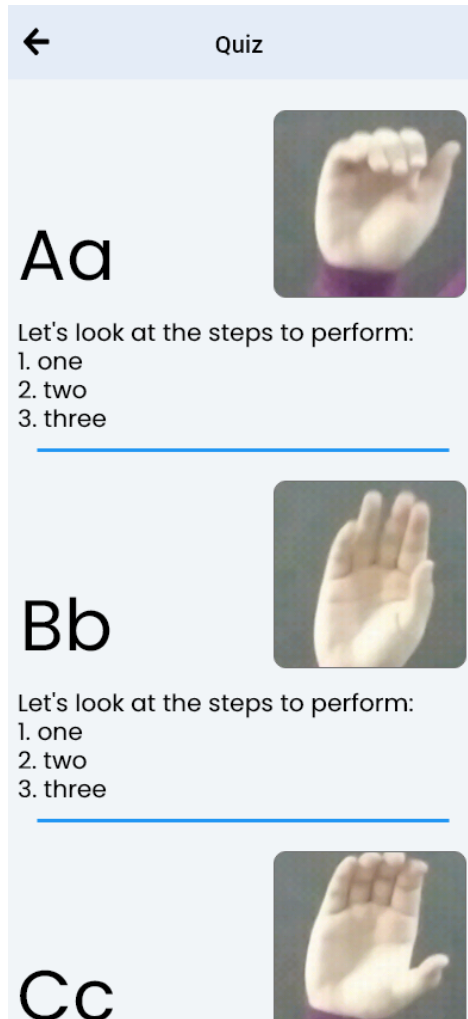
- **Recognition rather than recall:** The application remembers which sections of which chapters have been cleared already by the user and this will tell the user where they left last time and from where they need to continue their tutorial.

Interaction Style: Menu Selection

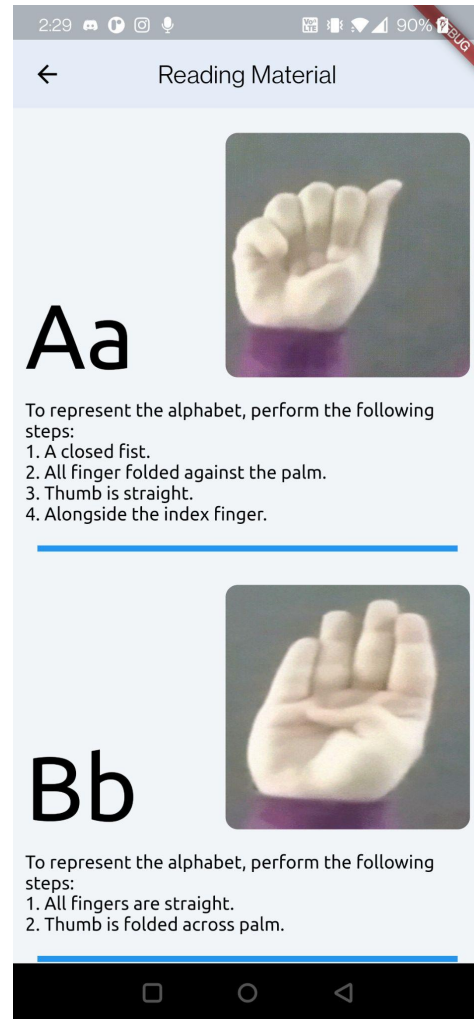
Page: Tutorial - Reading Material

Photos:

In AdobeXd



Implementation



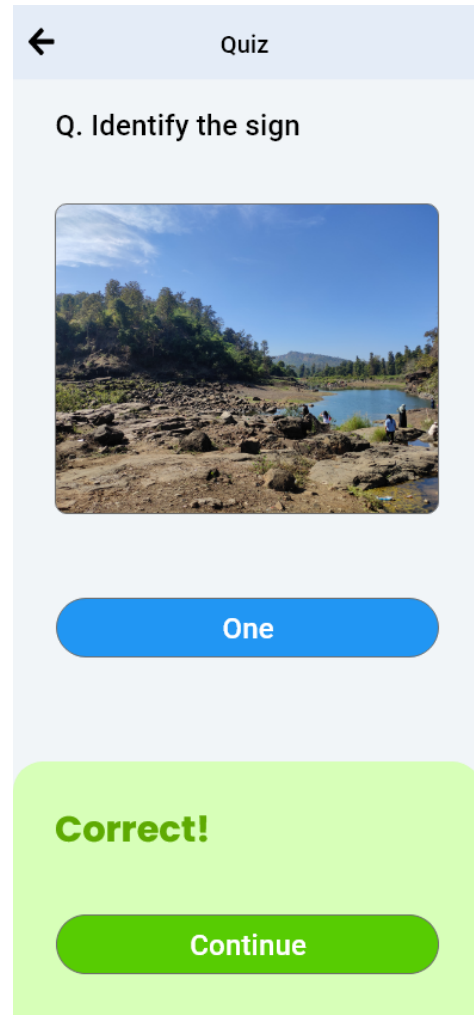
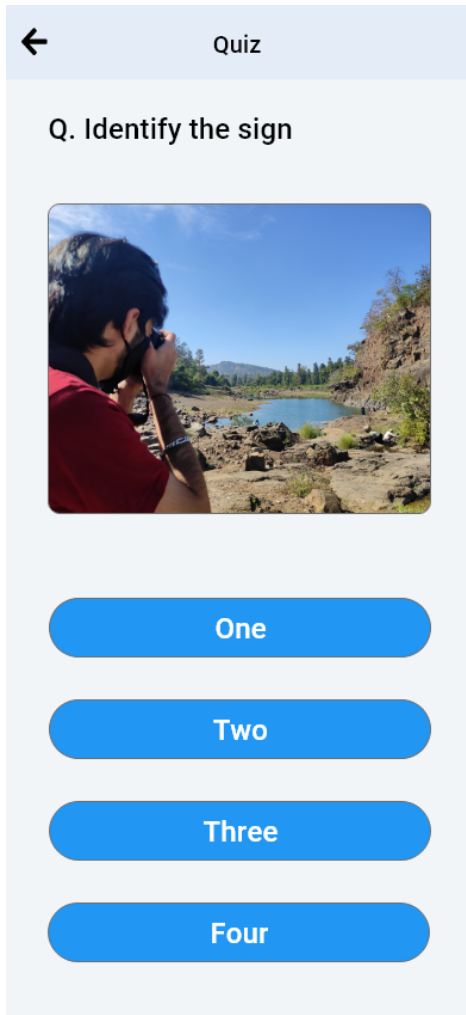
Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The structure of a section of the reading material of every chapter is made with consistency. On the left, the app shows the alphabet in large fonts followed by a gif showing the hand gestures associated with that particular alphabet, finally the proper steps to make the gestures properly.
- **Visibility:**
 - The alphabet is shown in the big fonts so that the user can find the section associated with it easily.
 - The gif on the right is also large enough for the user to see it clearly and understand the gesture of the hands properly.

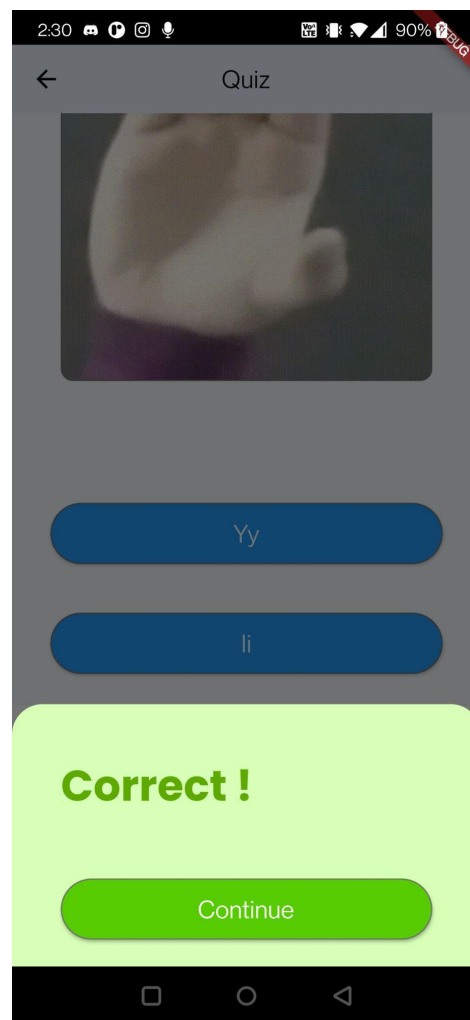
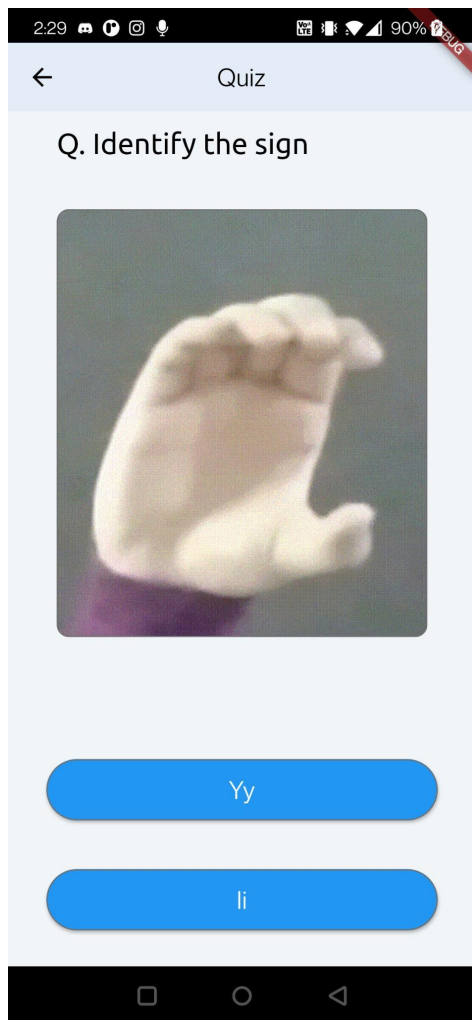
Page: Tutorial - Quiz

Photos:

In AdobeXd



Implementation



Design Principles:

- **Consistency:**

- The consistent heading appears on every page of the application.
- The format of a quiz is simple and consistent for every question in every chapter. It begins with a simple heading defining the task at hand which is to translate the gesture shown in the gif below it to English. The options are provided right below the gif.
- At the end of every quiz, there is a page that shows the score of the user for that particular quiz.

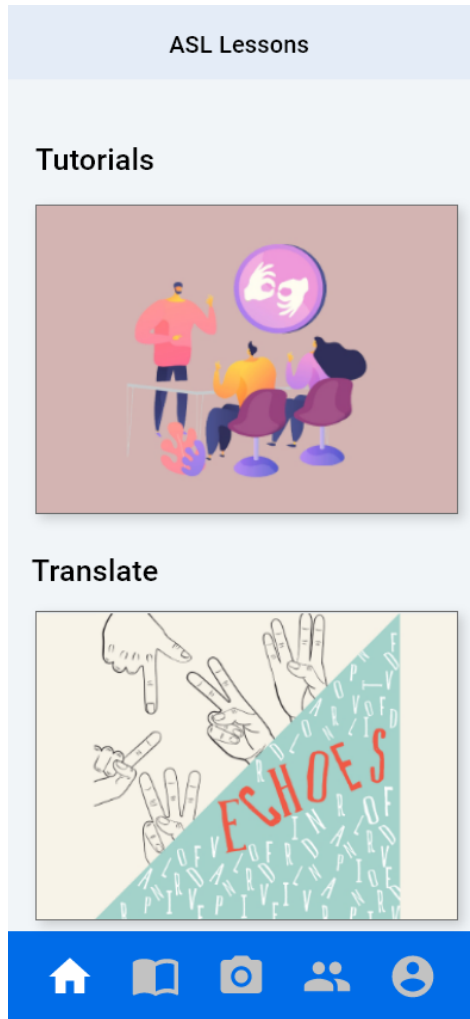
- **Visibility:**

- The gif is large and easy to see and understand the hand gestures properly, the user will find it easy to translate the gesture to English.
- The options are large enough for the user to read and easy to tap on.

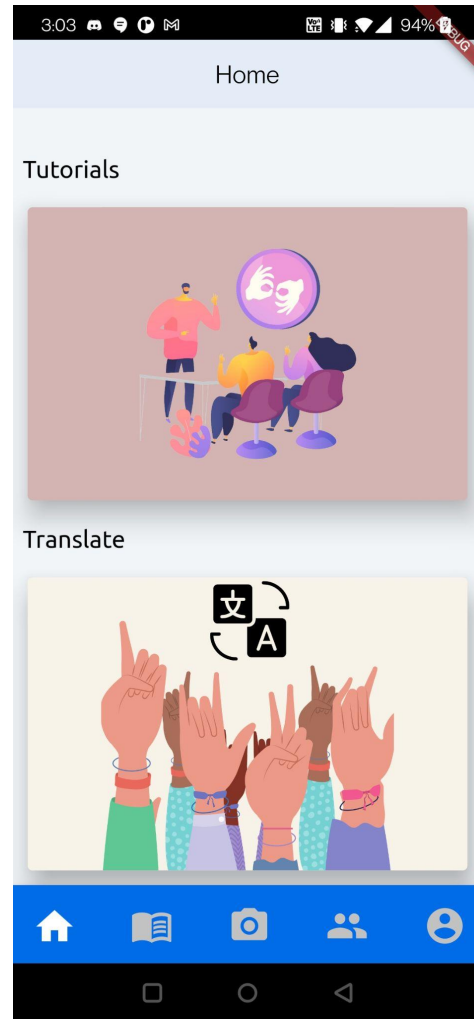
Page: Tutorial - Choosing Difficulty

Photos:

_____ In AdobeXd



Implementation



Design Principles:

- **Consistency:**
 - The consistent heading appears on every page of the application.
 - The navigation bar at the bottom of every page is exactly the same(except where it isn't needed).
- **Feedback:**
 - All the buttons on this page give feedback to the user when clicked.
- **Visibility:**
 - The buttons are big and easy to click on.
- **Affordability:**
 - The images on the button heavily imply the functionality associated with it, the above image implies that it will lead the user to the tutorial page and the below image implies that it will let the user access the translating functionality provided by the application.

Usability Heuristics:

- **Aesthetic and minimalist design:** This page is minimalistic, it provides only the two main functionalities for which any user might use this application. The color scheme is soothing to the eyes and aesthetically pleasing. A lot of information has not been clustered together.

Interaction Style: Menu Selection