Kashish Gaur 7061864 **Kaamya Gaur 7061865** **Divya Gupta 7061958**

TEAM - 65

HCI - EXERCISE SHEET 6

1. Introducing your app and restating requirements

a) **Name of the Project:** ReWise
A concise description of the problem our application solves: We are solving the problem of apps/ websites being too boring for the user to use, like Anki or other flashcard-based websites. We aim to make our application engaging and interesting to use so that the user doesn't have a quick burn-out. We aim to make the application less saturated and overwhelming for the users, with a lot of information. The next problem that we solve is the application not being very intuitive. We aim to make our application user-intuitive, easy to understand, and use by adding only useful and minimal features. We aim at also making an Error and Feedback from the users since errors are inevitable but having users report those errors and give feedback, will help us mitigate them and path and update the application efficiently.
Description of the target users: Our target audience will be students.

b) **Requirements:**
   i) Understandability and easy learning of platform
   ii) Engaging and Appealing UX/UI
   iii) Error and/or Feedback feature for AI-related issues
   iv) Collecting/storing login credentials of users.

c) **Main tasks:**
The basic requirement before the execution of the below-mentioned tasks would be to upload the PDF on the Study Material Page.
   - Quizzes: The tool will create quizzes through AI based on the chosen PDF, to help students prepare for exams or brush their skills up.
   - Podcasts: The tool will also use AI to convert PDFs into informative podcasts that users can listen to on the go, download, and listen to offline. Our reference for this was taken from Notebook LM.
   - Progress Tracker: The tool will also keep track of the user's learning progress and display it so that the user can keep track of it.

d) **Personas:**

Persona	Law Student at a University
Fictional Name	David Bowie
Job Title/ Major Responsibilities	Computer Science Teacher, ABC University
Demographics	- 23 years old - Married - Master's degree in Law - Lives in Massachusetts, USA
Goals and Tasks	- Preparing for Bar exams along with his studies - Interns at a law firm - Attends university almost regularly
Environment	He lives in the student dormitory and mostly prefers to study in library. Being a law student along with working in a firm takes up most of his time.
Quote	"I wish there was a tool that could track my progress for me"

Persona	Computer Science Student at a University
Fictional Name	Tim Burton
Job Title/ Major Responsibilities	Computer Science Student, Part-Time worker
Demographics	- 19 years old - Single - Bachelor's degree in Computer Science engineering - Lives in Saarland, Germany
Goals and Tasks	- Attends university lectures almost daily throughout the weekdays - Works as a McD part-time employee during the weekends - Works on his assignments and prepares for his mid-term and end-term exams
Environment	He is a young student with a busy schedule with most of his days being filled with his university lecture classes and work. The rest of his free time is spent working on assignments and preparing for exams. He is also surrounded by students who are similar to him.

Quote	“I wish there was an app or a website that could make learning on the go easy. Or just understanding concepts while working, without looking at anything.”

2. Conceptual Design

a) **i) The 3 main tasks of our tools are: Quizzes, Podcasts, and Program Tracker.**
   - For **Quizzes**, the Interface Metaphor can be a puzzle piece. It will represent that each quiz question will have to be solved correctly to get a perfect score just like one does in a puzzle.
   - For **Podcasts,** the Interface Metaphor can be a Headphone or a Vinyl CD. It will represent the academic podcast that will be available for users to listen to just like how we listen to different podcasts on our song apps.
   - For **Progress Tracker,** the Interface Metaphor can be a graph that represents the daily ‘progress’ of the users.

The collective sketch of the task metaphors are shown below.

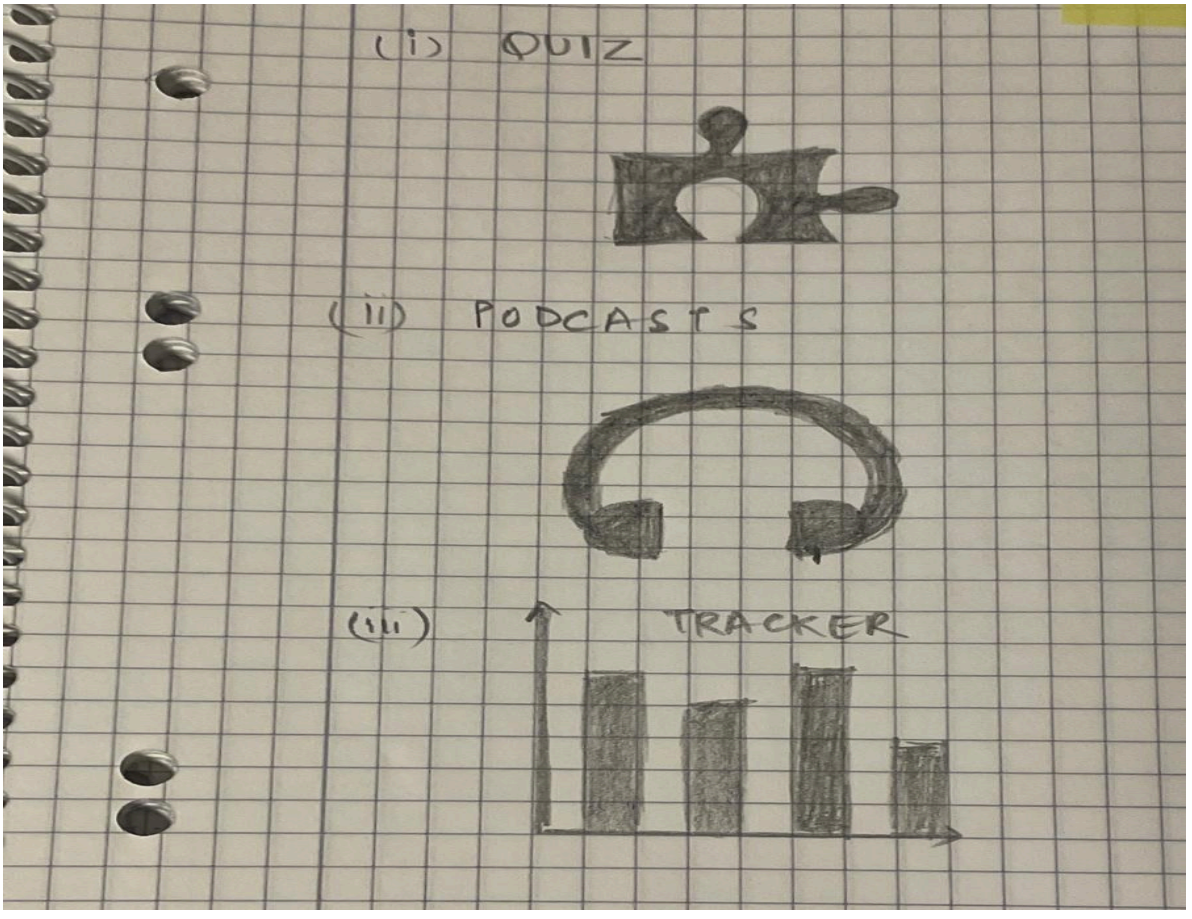

Fig 2.1 The interface metaphors.

ii) The interaction modes used are as follows:

- **Conversing**: Interacting with the tool to upload content for it to convert into playlists and display them. This mode will also be used when asking the tool to generate mock exams for the users.
- **Direct Manipulation**: Uploading notes and study material is one way in which this interaction mode will be used in our tool. The other is when the user interacts with the playlists to play, pause, skip, etc..

b) **i) The main function** of our tool is to help students efficiently utilize AI to help them prepare for exams by attempting quizzes, listening to interactive podcasts, and helping them keep track of their progress with the help of the progress tracker.

ii) The subtasks are:

- Content uploading by students will be used by the tool to generate quizzes and podcasts.
- The tool will also provide an overview of the student's performance.
- The user's daily log-in streak will also be tracked and maintained.
- User can also change their personal information in the User Dashboard page.
- Since mistakes are inevitable, there will also be a feedback option through which the student can report errors which can be fixed with every update.

iii)

1. Content uploading by students will be used by the tool to generate quizzes and podcasts. **The student provides the input and the tool processes the content and with the help of AI generates quizzes and/or podcasts.**
2. The tool will also provide an overview of the student's performance. **The student will provide content by taking quizzes, listening to podcasts, and uploading content, and the tool will generate the overview by analyzing this information.**
3. The user's daily log-in streak will also be tracked and maintained. **The user only needs to log in, and the tool will maintain a record of it and the streak maintained.**
4. User can also change their personal information in the User Dashboard page. **The user provides their new information, and the tool updates it and displays the new content.**
5. Since mistakes are inevitable, there will also be a feedback option through which the student can report errors which can be fixed with every update. **The user will provide the feedback/error through the feedback form and the tool records it for the developers to correct it in the consecutive updates.**

iv) Required information for the subtasks:

- Content uploading by students will be used by the tool to generate quizzes and podcasts: **PDF's to be uploaded (Study material)**

- The tool will also provide an overview of the student's performance: **based on Quiz attempted and Podcasts listened per PDF.**
- The user's daily log-in streak will also be tracked and maintained: **User login credentials to track the date/time when user logged in.**
- User can also change their personal information in the User Dashboard page.: **Previously stored user information to update with new user information.**
- Since mistakes are inevitable, there will also be a feedback option through which the student can report errors which can be fixed with every update. : **the suggestion given by the user to make the changes in the model accordingly.**

c) i) Please refer to the **G65_storyboards.pdf** file provided in the zip file submission.

ii) Here's the **brief summary of the feedback** that we received on our storyboards.

- **Quiz**: The storyboards were easy to follow and understand and features like handling accidental skips on questions were appreciated. A recommendation is to add a question board instead of the progress bar (which is displayed on the top of the questions) on every question page which will keep track of all the questions we have answered or skipped so that tracking becomes easy and more visible.
- **Podcasts**: The idea of generating playlists from students' notes was highly appreciated and liked by many. The idea of download for offline usage was also appreciated. The only question that was raised was whether the AI will generate playlists solely based on the content that the student provides or will also surf the web and then provide multiple podcasts (like in ChatGPT, it gives two responses from which the user can choose which one they like to make the AI better) from which the user can choose. We have not dealt with the situation yet but we might handle this in the future
- **Tracker**: We received a suggestion to also add a quick recap session based on the user's previous mistake before they move on to the new topics. The display of the group's collective progress (in the second storyboard) was not understood and taken well by the users. Instead having a leaderboard for groups was suggested. We also got a suggestion of displaying the progress of each subject individually.

iii) Here's a **brief explanation of the storyboards** we chose along with their refinements:

- **Quiz**: The most promising storyboard for this one is the first storyboard. We will refine it by also adding the feature of handling the accidental skips on questions which will allow users to go back to the question and answer it. We will basically combine both the storyboards into one and go through with it.
- **Podcasts**: For this one, we are choosing the first storyboard. We are going to refine it by taking some of the features from the second

storyboard that users liked, like pause/play/rewind/etc, and the download option for offline use.

- **Tracker**: We are following through with the first storyboard and we will refine it by adding the feature of displaying the individual progress the student has in each subject. We will also display the user's overall performance and a reminders dialogue box which will help users keep track of the things they need to do.

3. Low-fi Prototype

a)

The first Prototype:

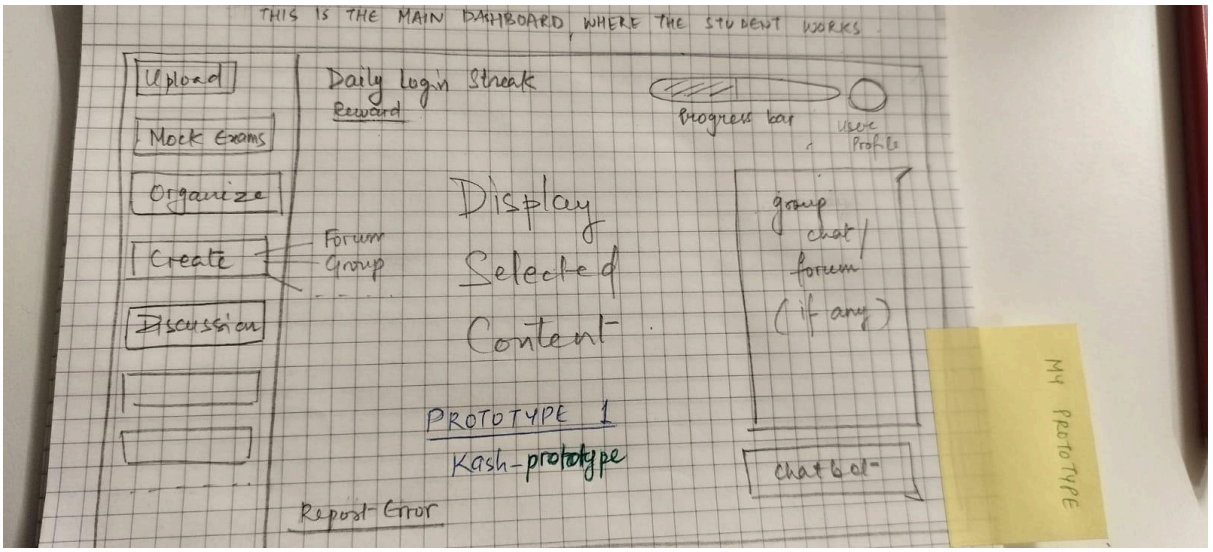

Fig 3.1 Prototype by Kashish

The second prototype:

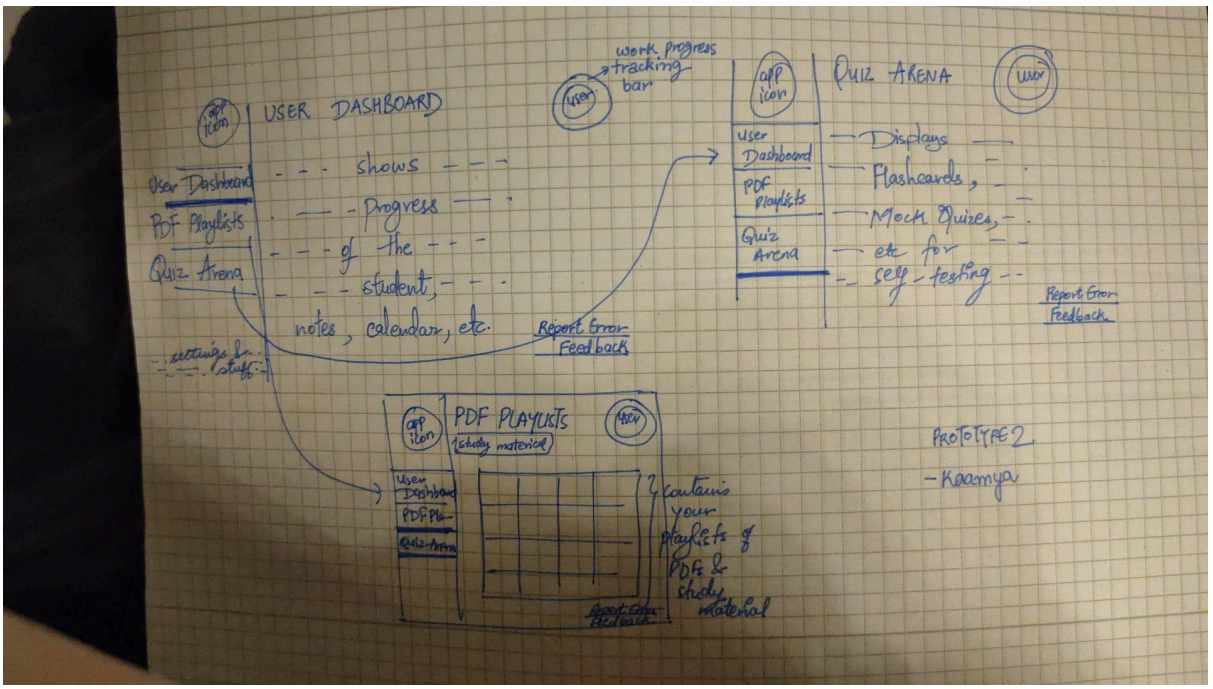

Fig 3.2 Prototype by Kaamya

The third prototype:

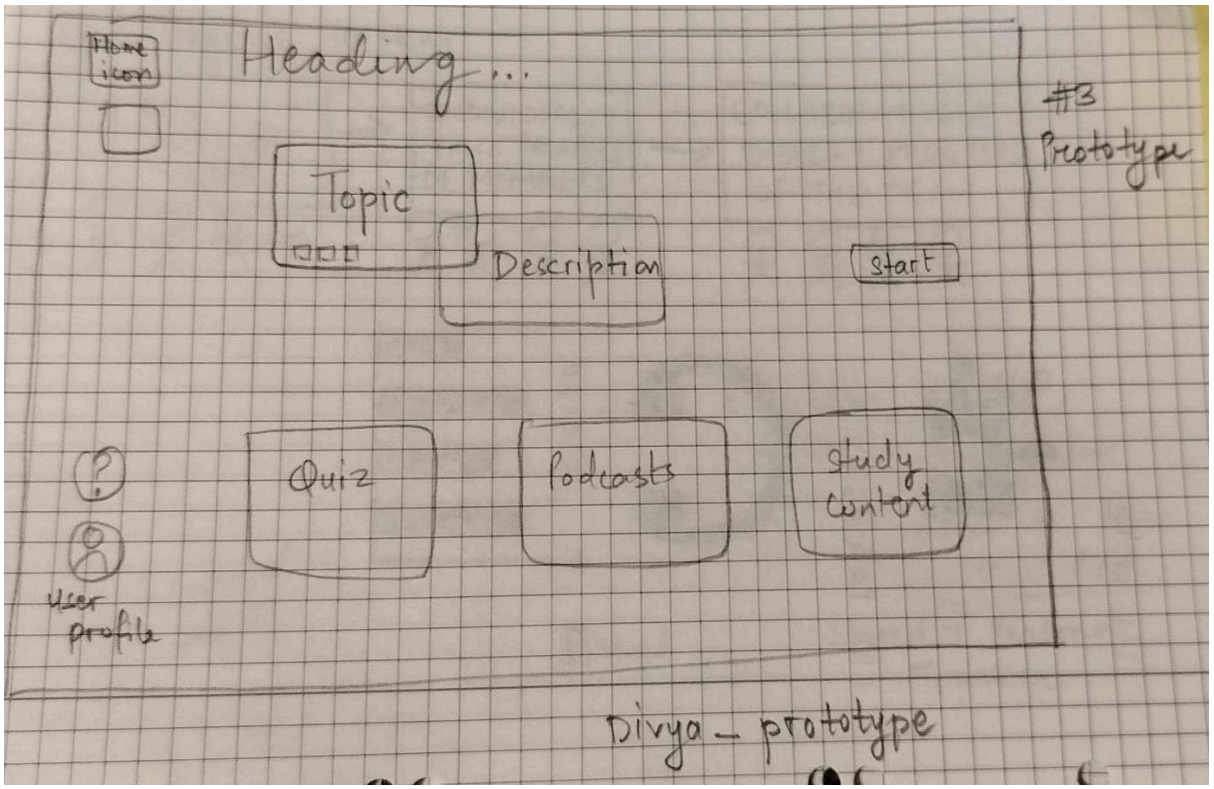

Fig 3.3 Prototype by Divya

b) The prototype that we are following through with is the **third prototype (Divya_prototype)**. We are choosing this prototype because it is the easiest and most efficient to implement, which the users can easily navigate through. It also encapsulates all the ideas from the first and the second prototypes and combines them into one prototype where the features and the elements are functional. The screen will also not be too scattered and only display the important features.

c) Please check the **G65_lofi_prototype** pdf file attached in the zip file.

d) Three students of **Team Number: #48** were asked for feedback on our Lofi visual prototype.

STRENGTHS:

- Creative usage of AI to convert PDFs into podcasts
- Reporting errors and getting feedback.
- Individual display of progress in different subjects.
- Easy to locate the Quiz, Podcasts, and Study Content functionalities

WEAKNESS:

- Redundant uploads of PDFs every time.
- The clock is overwhelmingly large on the Quiz Page which might create unnecessary pressure on the student.
- Some buttons on the Quiz page are not user-friendly and can be confusing for the user to understand. (the buttons are: Previous Question represented by the back arrow, Next Question represented by the forward arrow, and Skip Question represented by a curved forward arrow.)
- On the Study Material page, there are no buttons to delete the folder, only option visible is to add folders.

e) Team Numbers: 82, 48, 34

f) Based on the feedback we received, we have made the following changes:

- To reduce the redundancy of uploading files every time, we have instead added new icons(quiz, podcast, delete, like) on the bottom margin of the pdf file itself which the user can select immediately and wouldn't need to upload files every time. These files will be displayed along with the folders on the homepage.
- We are also reducing the size of the clock on the Quiz page and instead placing a timer on the top of the question.
- Instead of displaying various files ready to play on the PDF Podcast page, we will instead display a page where the content of the pdf file will be shown immediately after the user clicks the podcast icon on the file.
- Instead of the symbols representing Previous Question, Next Question, and Skip Question, we will make buttons display their usage.
- We will also add a 'Result Page' after the quiz's completion, displaying the user's score.

4. Hi-fi Prototype

a) The following is an image of our **horizontal prototype** using Figma:

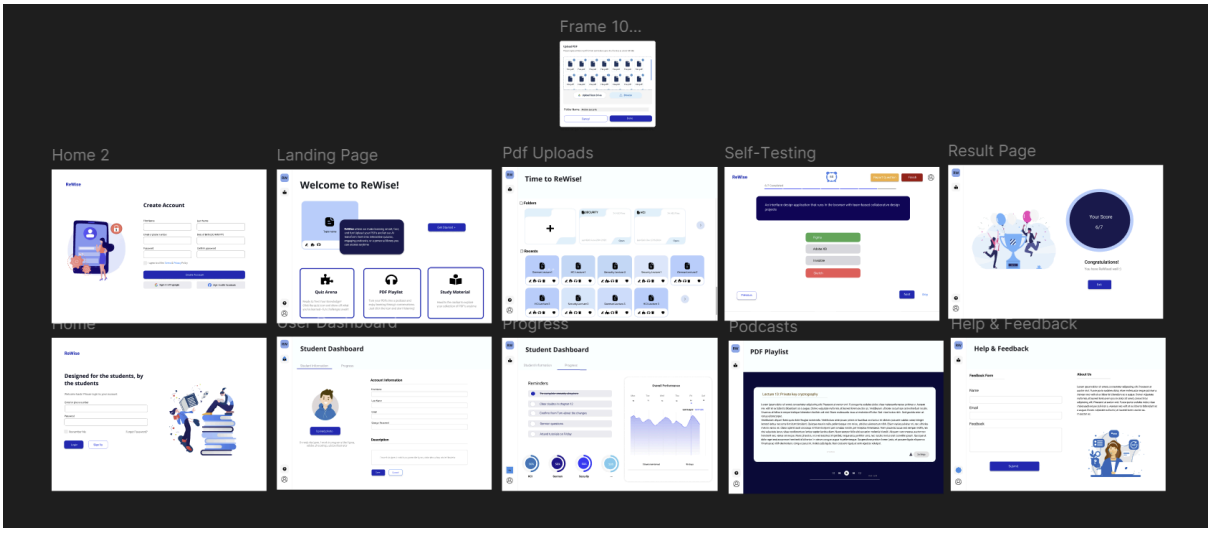

Fig. 4.1 Design

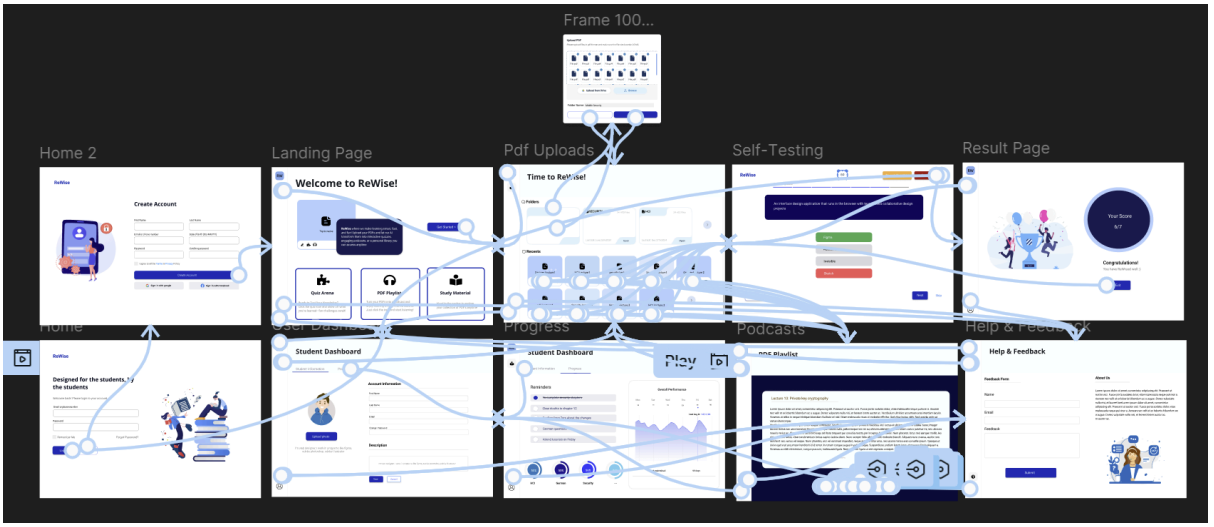

Fig. 4.2 Prototype

The entry point to our application ReWise is the “Home” frame and you can access most of the app’s main function through our “Pdf Uploads” frame.
(unfortunately, there is no way for us to hand in the code yet since there are no free methods of doing so.)

Link to our prototype on Figma: ReWise – Figma

b) A walkthrough of our prototype:

Initially, the user is presented with a log-in screen. If the student already has an account, they can simply log in and return to work. If the user is a new student trying the ReWise app for the first time, they can click on the “Sign Up” button which will lead them to a “Create Account” page where they can register themselves. Once this is done, they are directed to our landing page where they can get to know about the functionalities of our app and “Get Started” with the app. This home page is only shown once when the user logs in for the first time. After that, after every log-in the student is directed to “Pdf Uploads” where they can resume working. This frame is the most important as it covers most of our app’s functionalities. Here, students can upload their study material, sort them into folders, edit their files, and can hence, use the app’s several functionalities. The student can, once the file is uploaded, take file-specific quizzes, listen to file-specific podcasts, etc. They can do that directly from the “Study Material” section. Here, they can also view their recent and their folders. To check their progress and access other student- or user-based functionalities, they can access the “Student Dashboard” by clicking on the profile icon on the bottom-left. Moreover, once the student takes a quiz on their selected topic, they are presented with their score and have the chance to take another test or go back to the homepage which is the “Student Dashboard”. Just above this user icon, we have our “Error & Feedback” option, using which the student can report errors and give feedback which will help the app’s designers and developers to properly maintain and update the app for future use.

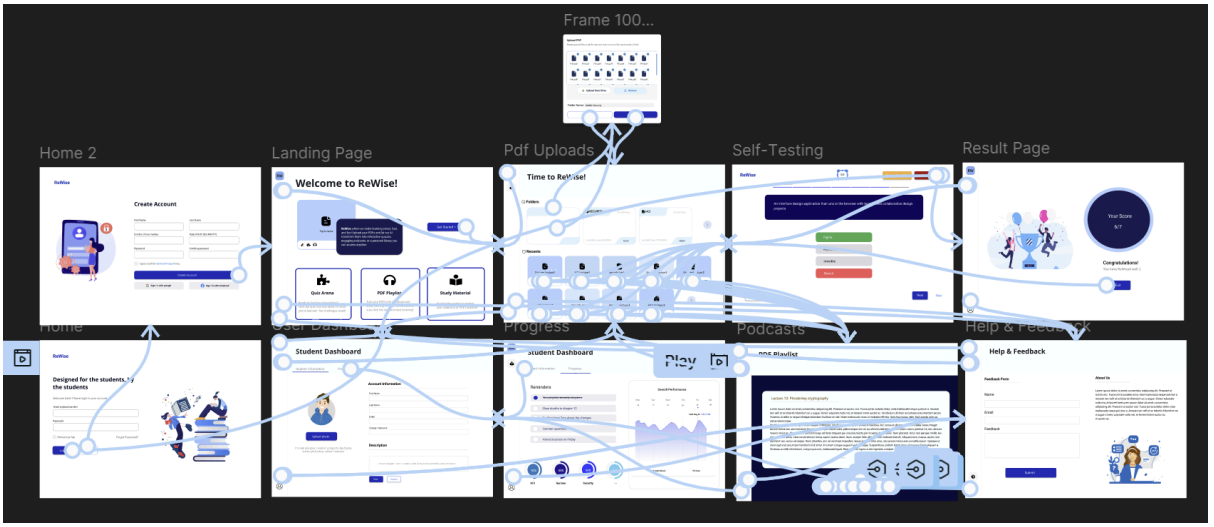

Fig 4.3 Flow of the hi-fi prototype

c) **In our paper prototype**, for our homepage, we had first planned on directing the user to respective web pages when they clicked on the quiz, podcast, or study material option shown on the homepage. However feedback revealed that this could become very redundant and repetitive so instead of doing that we let those options be as information providers, providing information on what the user can expect from a particular option further in the app.
In our podcast and quiz webpages, we initially were asking the user to upload the pdf of the specific pdf/topic they want to take the quiz of or listen to a podcast of. This was changed to the user accessing the aforementioned functionalities directly from the study material section instead of repeatedly uploading PDFs on a different webpage just to take a quiz or listen to a podcast.
For the study material homepage, we included buttons specific to podcasts, quizzes, and an additional deleted button, which was not present in the paper prototype. Also, we added a recent folder section. These are all the major changes in our hifi prototype from the paper prototype.