T3A2-A Full Stack App (Part A)

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Presentation Outline

- 1 – Proposed App
- 2 – App Purpose
- 3 – App Design

1. Proposed App

What is the app?

Background Context

- **Tumbling** is a physical activity wherein athletes perform various acrobatic movements – twists, cartwheels, flips etc.
- Most commonly seen in gymnastic floor routines, however it is also a prerequisite for cheerleading.
- Our client, **Elite Allstars**, specialising in tumbling instruction for a range of age groups.
- There are a variety of cheerleading and tumbling levels and skills, ranging from beginner friendly skills like a handstand in Level 1, all the way to a double full twisting layout in Level 6.
- Because of the physical & injury-prone nature of the sport, an athlete's progression must be meticulously tracked through term assessments.
- These assessments are designed to test tumbling athletes on a wide range of skills to accurately monitor individual skill & progression.

The Tumbling Skills Tracker

- A web application that allows coaches and educators to track a tumbling athletes individual skills progression when conducting term assessments.

- The staff at Elite Allstars will be able to logon to our website to view, edit, delete, or add any student information such as basic info, tumbling skills progression, and assessment scores.

- They will also be able to create new assessments each semester for specific individual students based off their personal skills progress.

2. App Purpose

Why is the app needed?

The Current Problem

- Elite Allstars current method of tracking an athlete's skill progression is manual and vastly inefficient:
  - The owner provides a list of all athletes in all classes to the head tumble coach.
  - The head coach will note the current skill level of each athlete (if previously known)
  - The head coach creates personalized assessments for each athlete, printing each individual assessment
  - The head coach/owner organizes the physical assessment rubric into class times to give to the class coach
  - The class coach then receives copies of assessments, hand records all results and returns assessments to the head coach/owner
  - The head coach manually inputs data into excel
  - Process repeats approx. every 10 weeks
- Initially, with smaller classes, this was not an issue, however the business has now grown to over 150 students.
- With multiple coaches tracking constant progression and improvements weekly, the current improvement tracking process must be improved.
- Not only is there a large amount of room for error, but there is no system in which data can be easily tracked, especially when conducting individual term assessments.

The Solution – The Tumbling Skills Tracker

- This website provides a solution by making the individual skills progression of all students easily accessible for coaches.

- Solving the problem by automating the record keeping process and transferring it online to our website by enabling a database to store information rather than a physical filing cabinet at Elite Allstars.

- This would allow for the precise tracking of any students tumbling skills progression - during term assessments or otherwise – which saves valuable time in class and allows coaches to easily review specific athletes progress over time.

3. App Design

How will it look and how will it work?

Functionality & Features

- Log in required
  - Ensure security of sensitive information such as student names by requiring authentication to access any database information
  - Ensure no misuse of power by enabling authorization on certain actions
- Add coach users (Admin Only)
  - Add new user to provide access for coaches
  - Update Admin property
  - Delete users to restrict access when needed
- Store student details
  - Student details such as name can be stored alongside assessment results to easily access a full history of assessments for each student
- View all students
  - See all students in database
- Create student-specific assessments tracking skill level for multiple skills
  - Assessments can be created and auto-populated with the appropriate level skills
  - Assessments record the student, date of assessment, and user that conducted the assessment
  - Store score for each skill in assessment
- Search for student
  - Search database of students by name
  - See single student record with associated assessment records
  - Update or delete student record (admin only)
- See specific assessment record
  - See single assessment record via associate student
  - Update or delete assessment record (admin only)
  - Delete users to restrict access when needed
- View all skills
  - See all skills within database and the associated level

Design Rationale

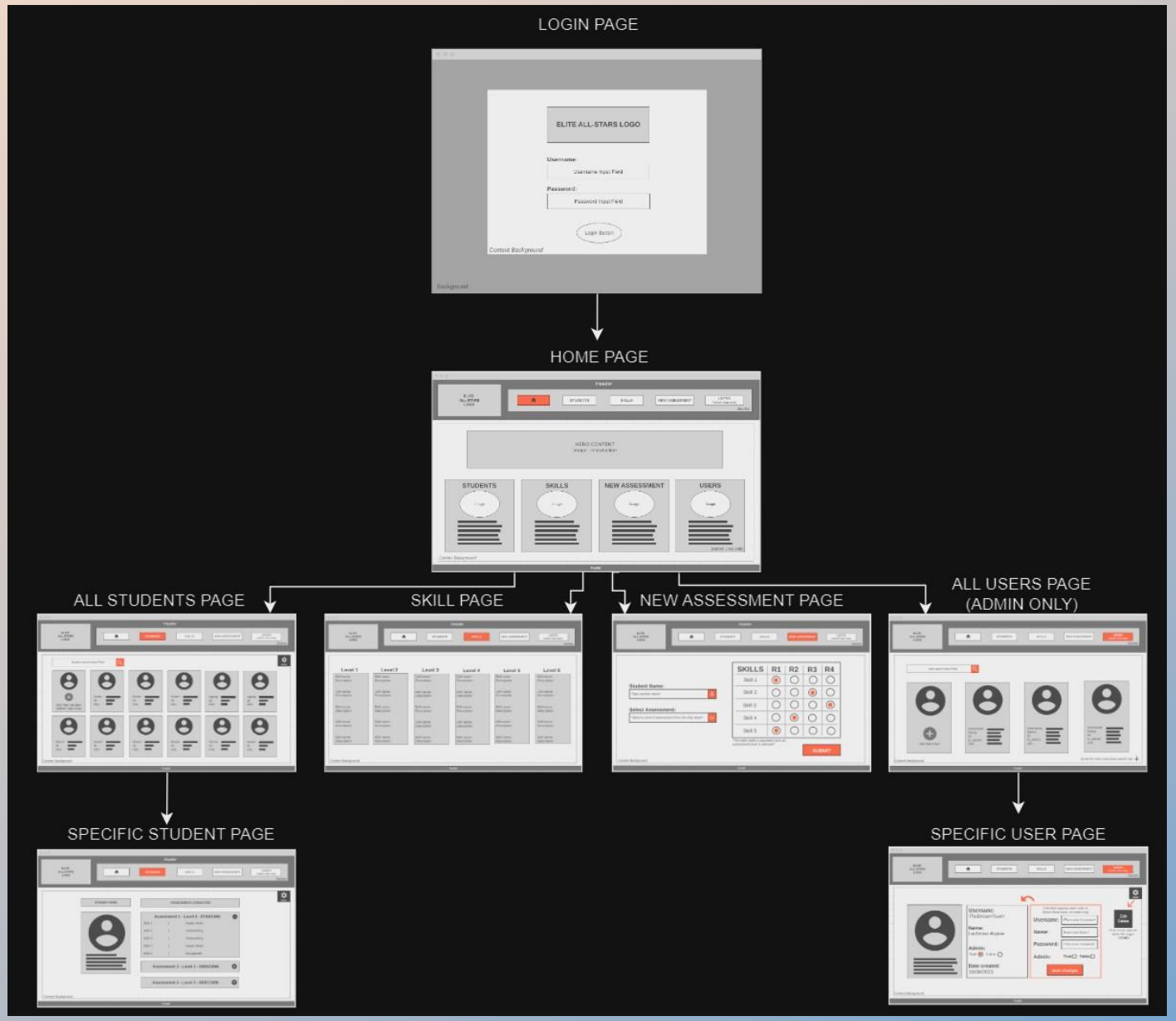
- Intuitive UI/UX Design
  - Navigation elements can be found at the top of the page, easily visible and adheres to common web app standards
  - Page content that is of equal importance are the same size and laid out next to each other or wrap underneath depending on viewport
  - Key features and functionality are positioned appropriately on the page, such as search bar to find a specific student being readily accessible at the top of the list of students, so as to reduce user confusion and maintain app usability.

- Discussions with client informed model design
  - Dynamically built assessments using the skills database to increase flexibility
  - Assessments linked via reference to students for tracking individual progress
  - Restricting certain functionalities to admin only to preserve important business information
  - Log-in page as entry for security reasons due to the nature of the clients/sensitive info stored

Sitemap

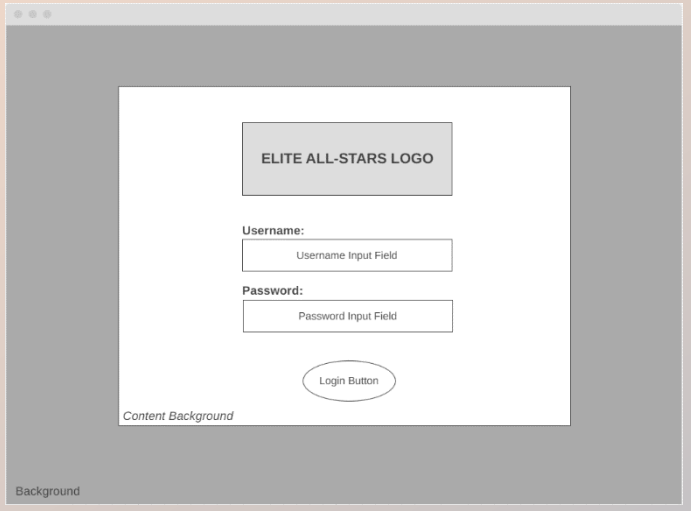
Login
Home Page
Students
Skills
New Assessment
Users (admin only)
Displays a list of students
Allows admins to create, update and delete students
Displays a list of skills
Select Student
Select Assessment Level
Displays a list of students
Allows admins to select a specific user
Create a new user
Allows admins to create a new user
Specific Student Page
Displays Student Details and Assessments
Carry out Assessment & Save to DB,
Once assessment is saved, the current pages goes to that Students page
Specific User Page
Allows updating and deleting of selected user

Visual Sitemap

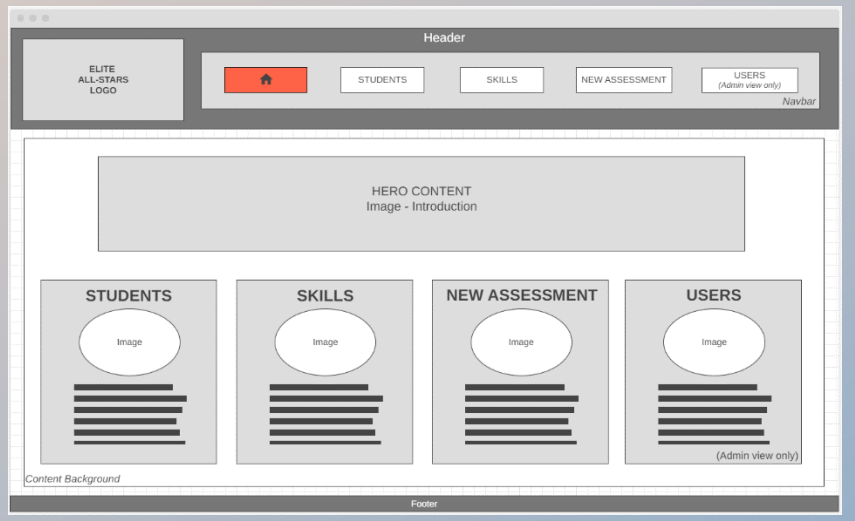


Desktop Wireframes

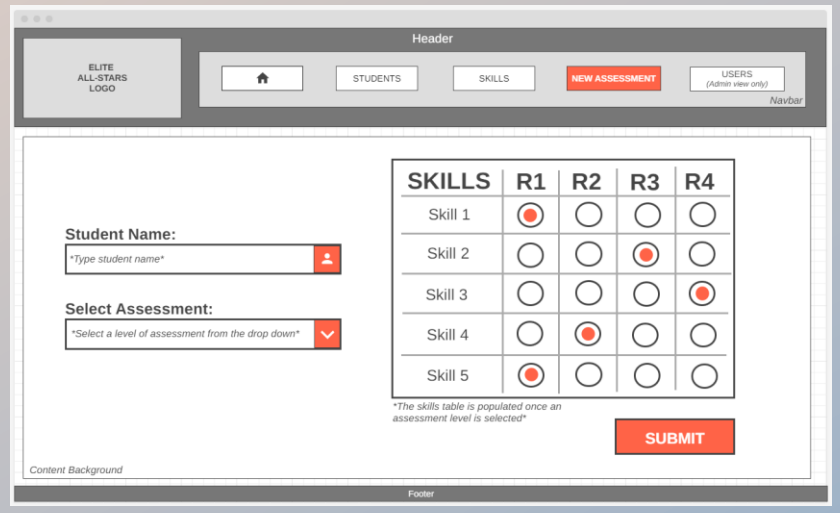
LOGIN



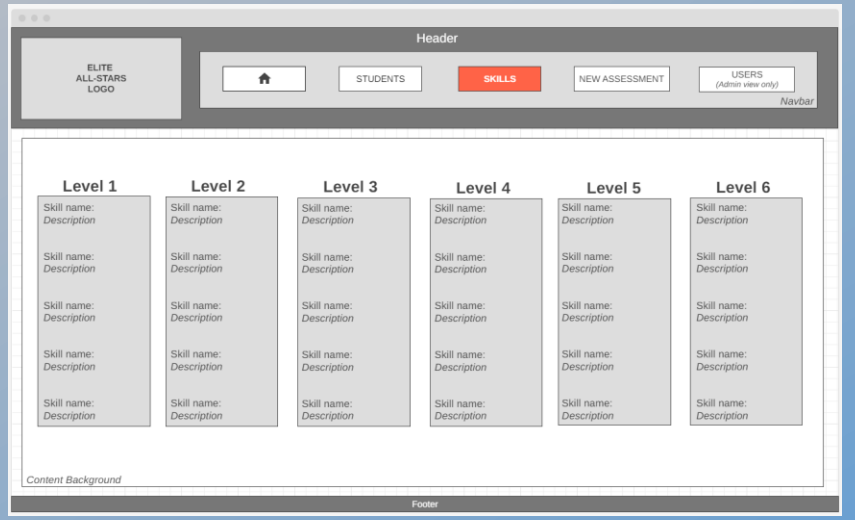
HOME



NEW ASSESSMENT

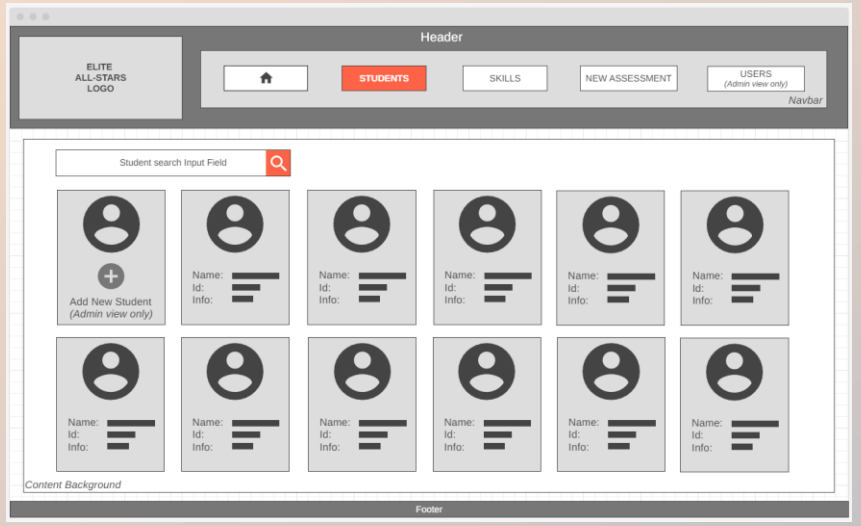


SKILLS

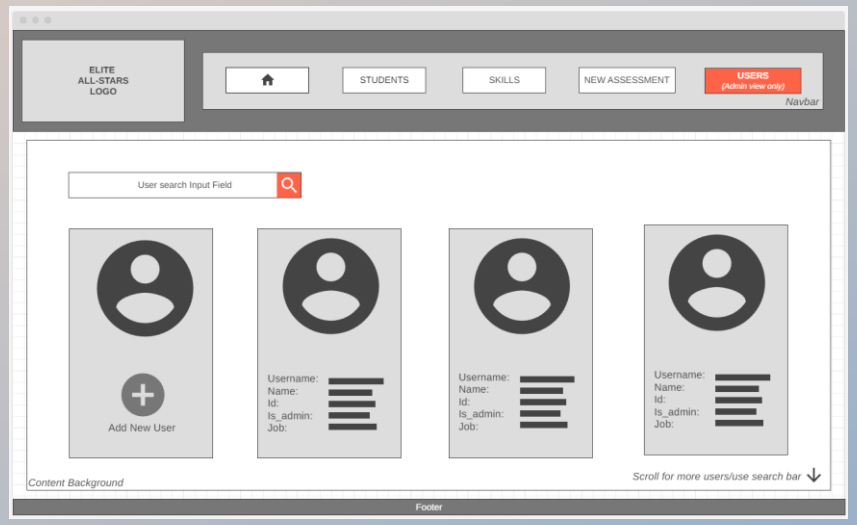


Desktop Wireframes

ALL STUDENTS



ALL USERS (admin only)



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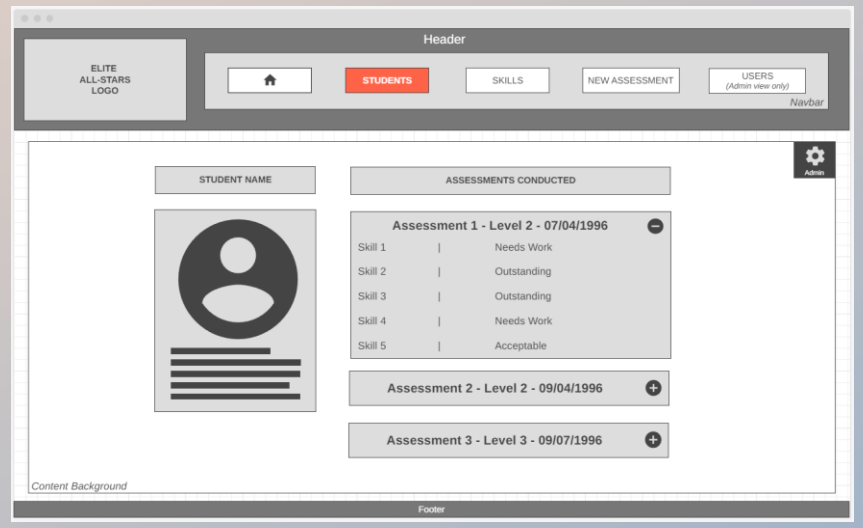

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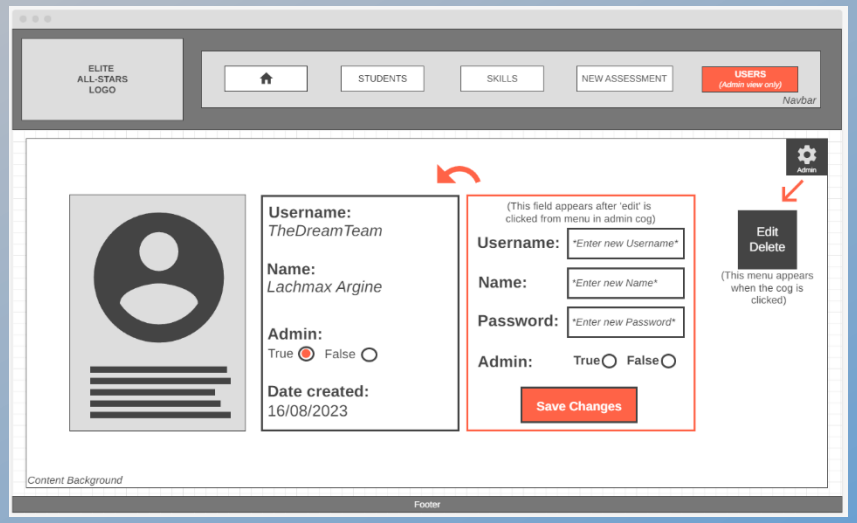
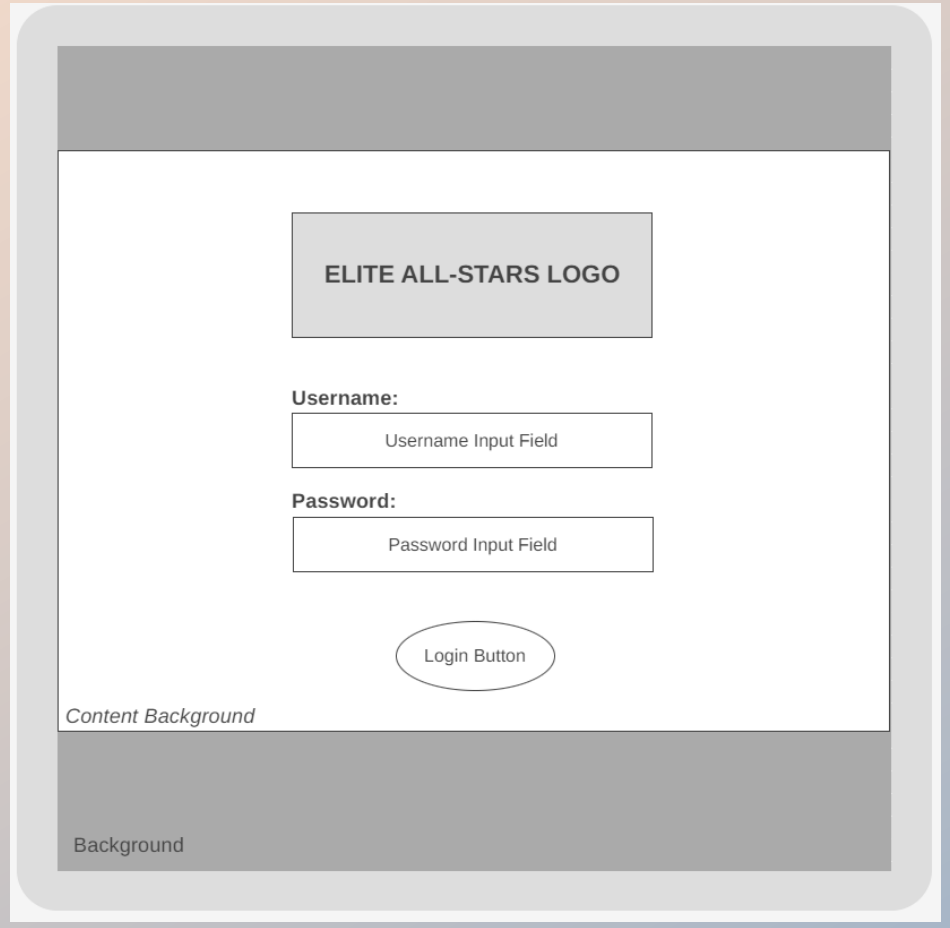


Tablet Wireframes

LOGIN



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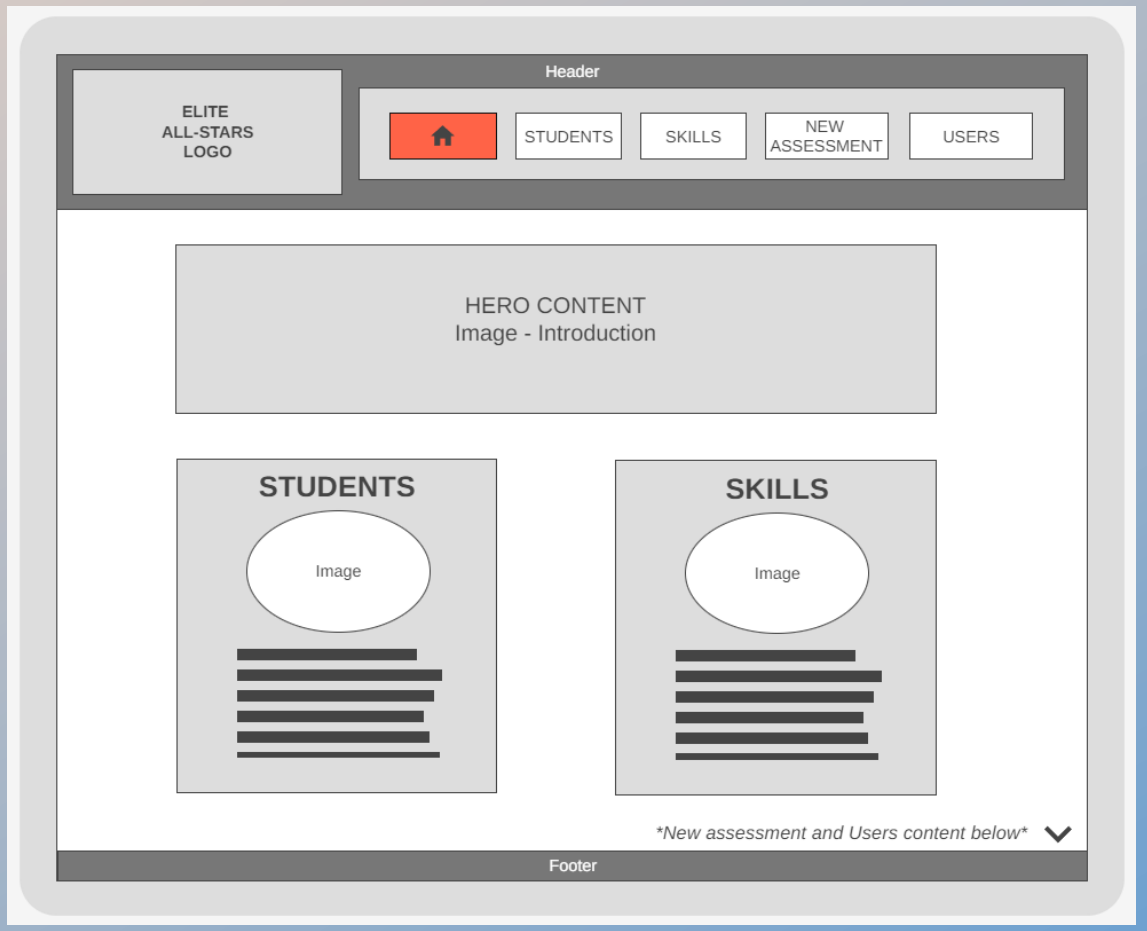

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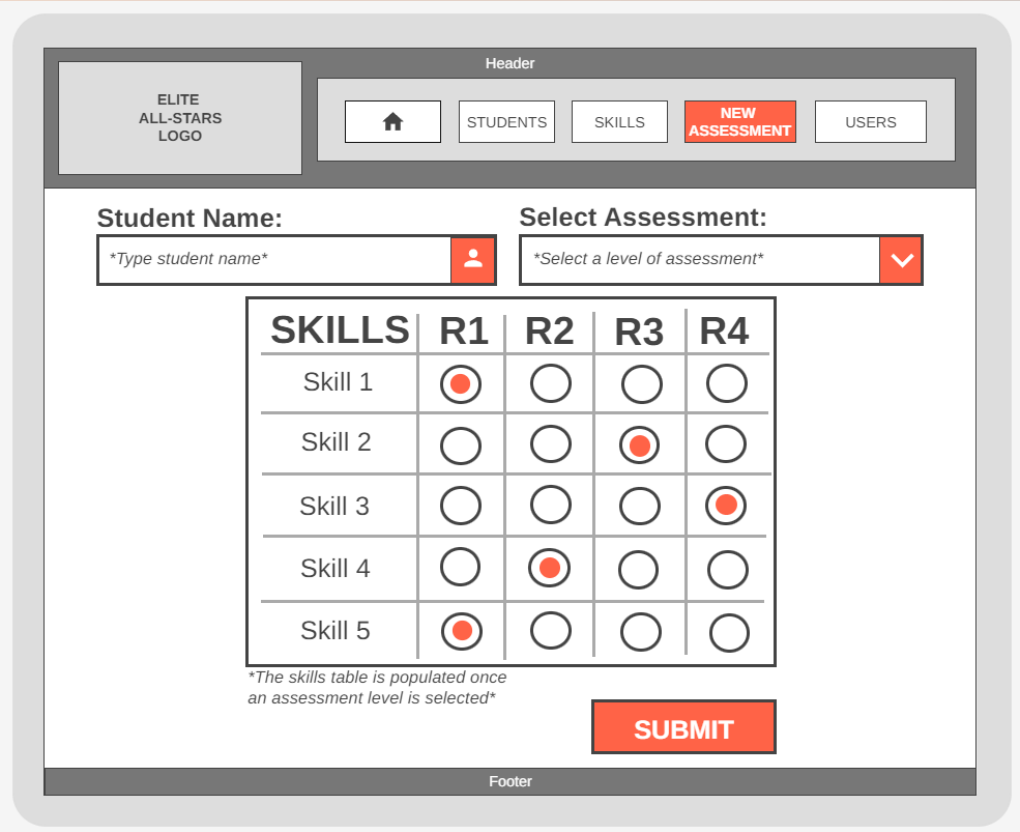

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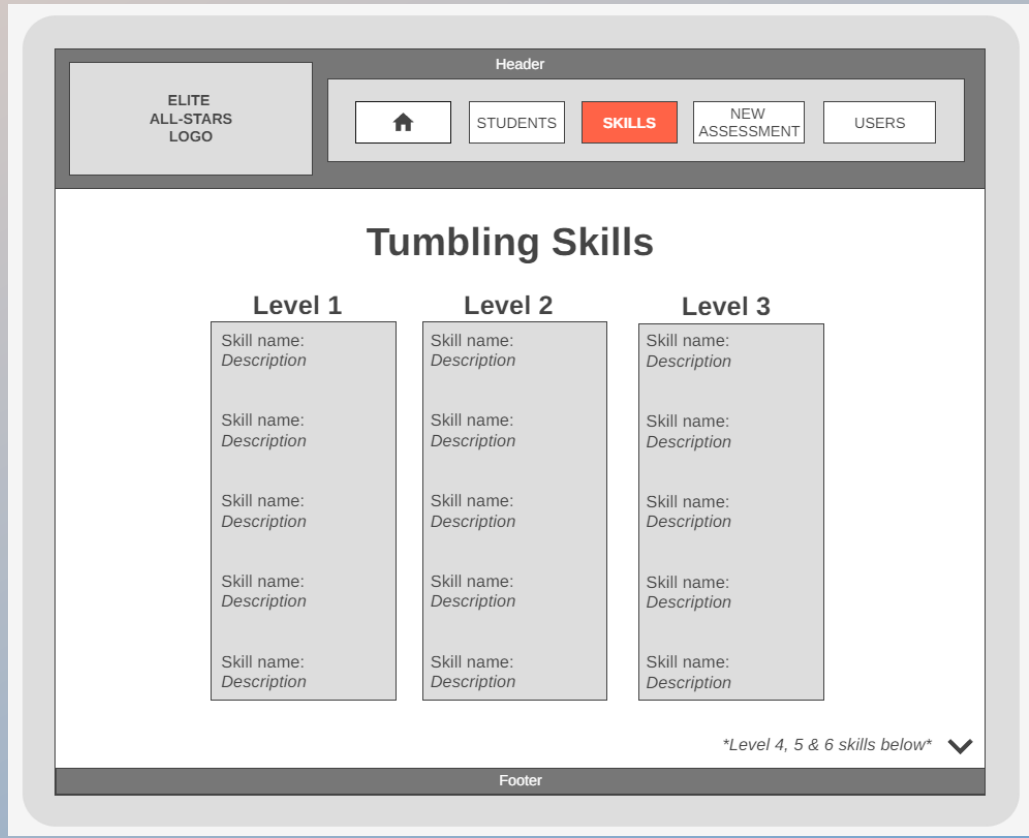

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SPECIFIC STUDENT

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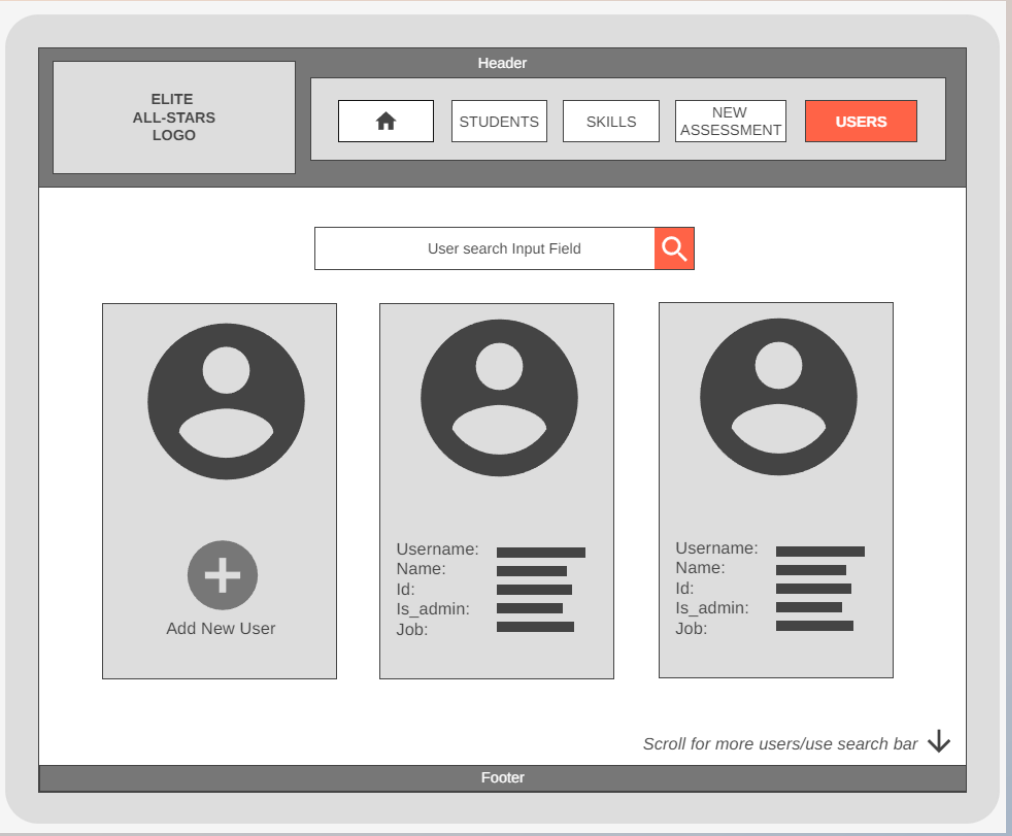

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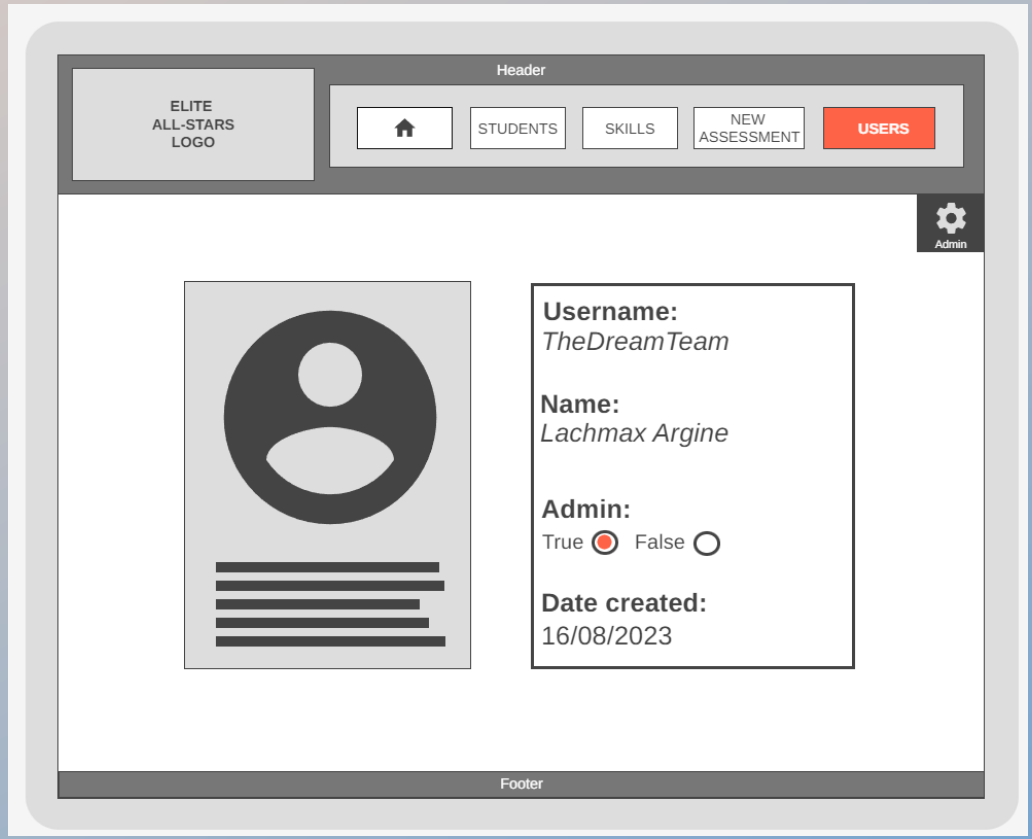

Mobile Wireframes

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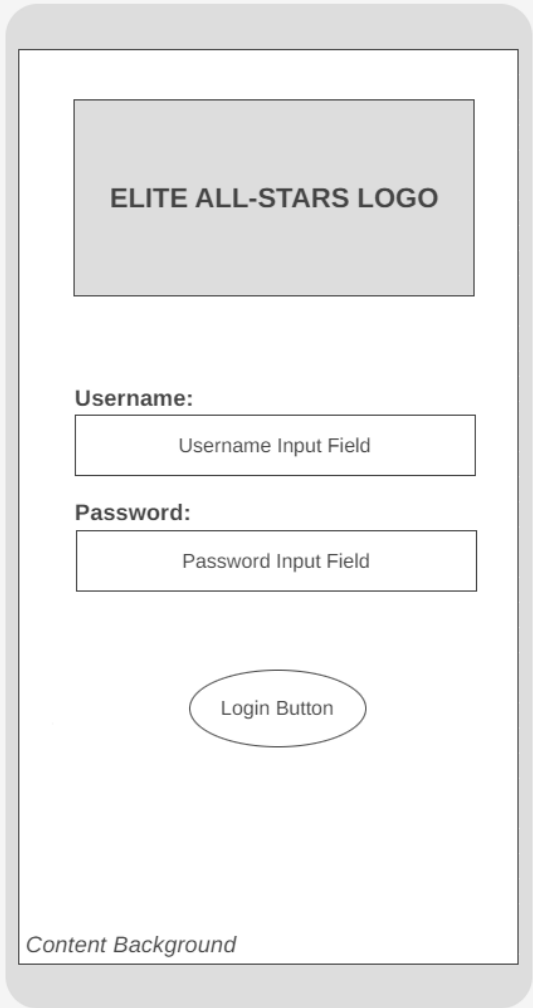

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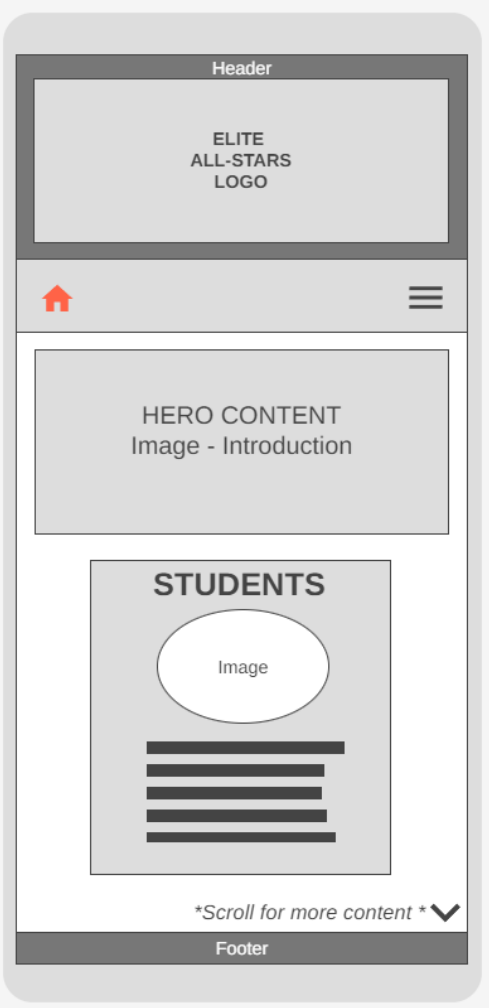

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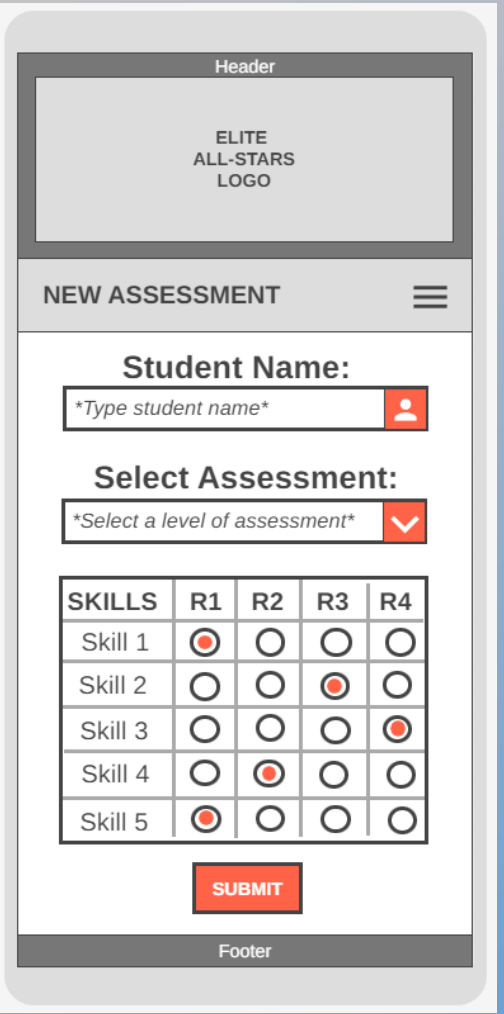

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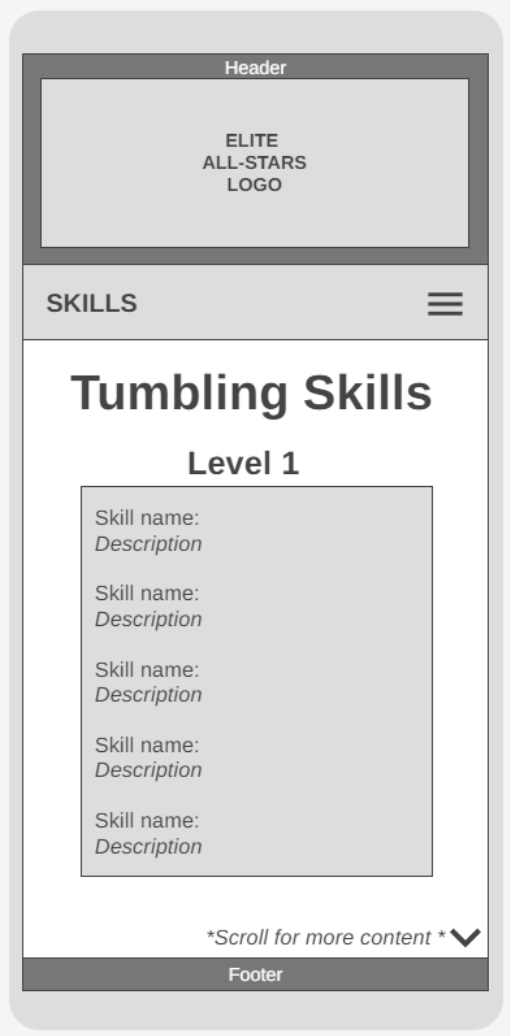

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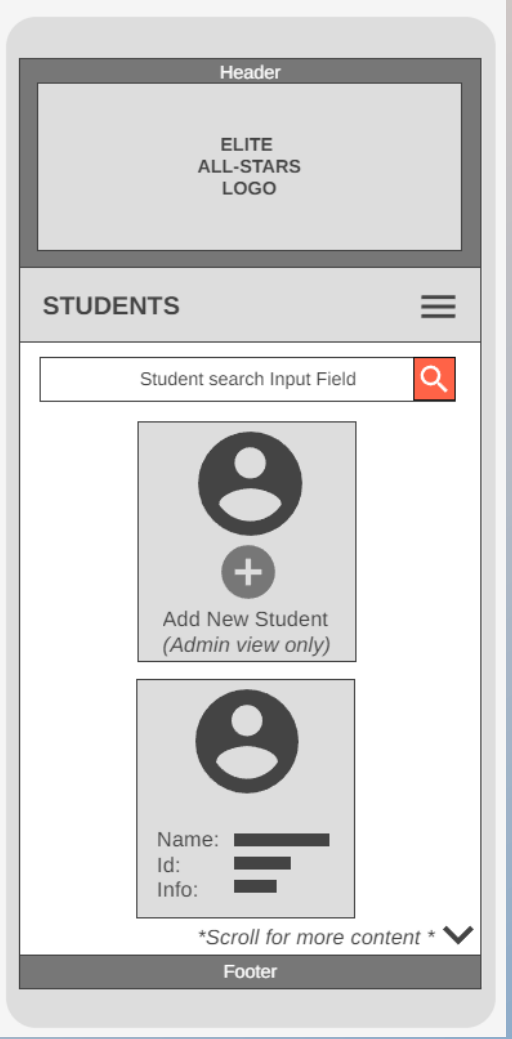

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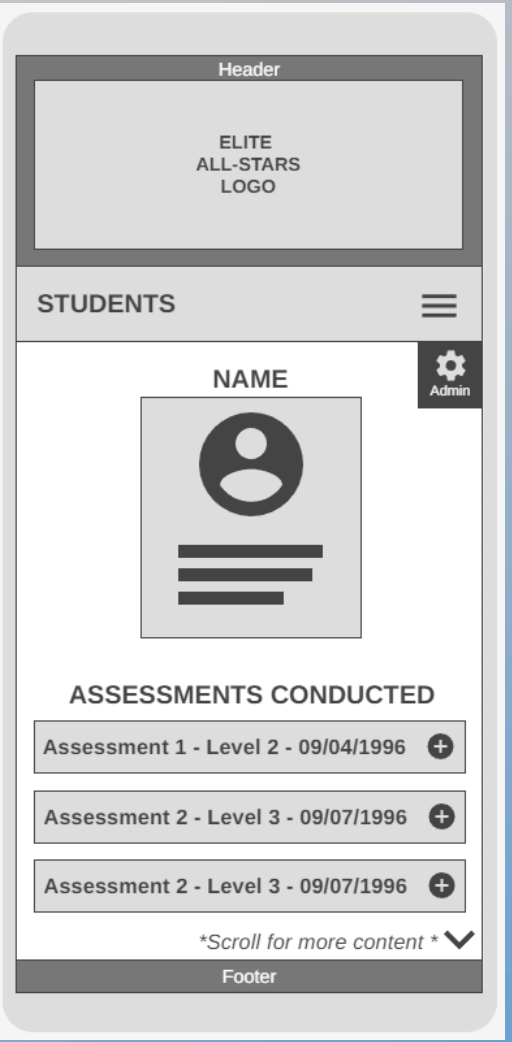

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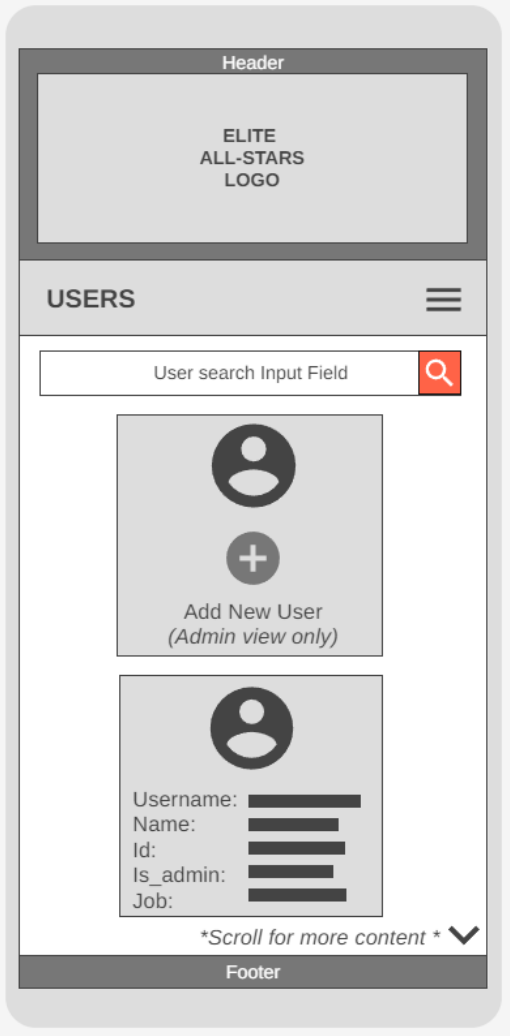

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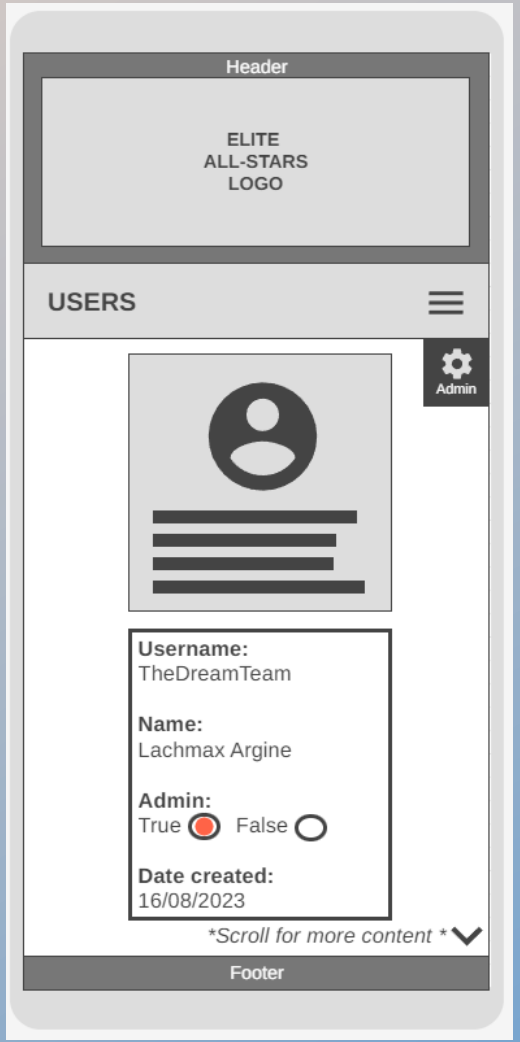

The End – Thank You!