

Campus Connect

Screen Sketches



By:

Abhay Prasanna Rao(Frontend)

Meghasyam Peddireddy(Frontend)

Neha Tirunagiri(Backend)

Umesh Sai Teja Poola(Backend)

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Actors

(By Meghsayam)

1. Students: Have the chance to

- View their calendar.
- View the weather.
- View the topics of the course of their choice.
- They can search the courses.
- View and edit their profile.
- Add and delete activities.
- They can track their GPA.
- They can set goals.
- Access Campus emergency services

2. Supervisors and advisors: Have all features of students in addition to:

- Have Access to edit the calendar
- Have the ability to give advice/feedback to students

3. Professors: Have all the features of students in addition to:

- Input information in courses.
- Add a course
- Delete a course
- Add or delete elements in a course
- Have the ability to give advice/feedback from students.

4. Administrators: Allowed to manipulate aspects of the program itself by:

- They can give access to professors.
- Maintain the server
- Take down the information that violates the app policies.
- Update the information on the emergency services.

Non-Functional Requirements

(By Umesh)

1. Performance:

- **Response Time:** The app should provide an immediate response to user interactions, aiming for sub-second response times for data retrievals such as course information, GPA display, and calendar updates.
- **Throughput:** The system should be able to handle many simultaneous requests, specifically during peak usage times such as class registration periods or when grades are released.

2. Scalability:

- The app should be able to scale horizontally to accommodate a growing number of users and data volume without performance degradation.
- Database scalability must ensure that an increase in data volume, such as user profiles or course content, does not impact the response time.

3. Reliability:

- The app should be operational and accessible 24/7, with an uptime of 99.9% outside of scheduled maintenance windows.
- Implement robust error handling and failover mechanisms to maintain service continuity in case of a component failure.

4. Maintainability:

- The codebase should be modular and well-documented to allow for easy updates and feature enhancements.
- Adopt a microservices architecture to allow individual features to be updated without impacting the overall system.

5. Portability:

- The app should be platform-independent, functioning seamlessly across different operating systems and devices.
- The user experience should remain consistent across web and mobile platforms, retaining feature parity.

6. Usability:

- The app should adhere to established design standards for ease of use, ensuring new users can navigate the app without confusion.
- Provide clear documentation and help features within the app to assist users in utilizing all functionalities effectively.

7. Privacy:

- The app must ensure user privacy by complying with data protection laws and only collecting necessary data with user consent.
- Users should have the ability to control the visibility of their personal data and understand how their data is being used.

8. Legal Compliance:

- Ensure that the app complies with all legal and regulatory requirements pertaining to higher education and digital applications.
- Stay updated with changes in law and policy that might affect the app's operation or the handling of user data.

9. Interoperability:

- The app should integrate smoothly with existing campus systems, such as learning management systems and student information systems.
- Adhere to standard data exchange protocols to facilitate interoperability with third-party services and APIs

Tables and Fields

(By Neha)

1. User Table: Stores basic information about all users.

- User ID (Primary Key)
- Username
- Email
- Hashed Password
- Account Type (e.g., student, Instructor, Admin, Advisor, supervisor)
- Privacy Settings
- First Name
- Last Name

2. Profile Table: Holds additional personal information for users.

- Profile ID (Primary Key)
- User ID (Foreign Key to User Table)
- Contact Information
- Permissions Details

3. Calendar Table: Manages user-specific calendar events.

- Event ID (Primary Key)
- User ID (Foreign Key to User Table)
- Event Title
- Start Date & Time
- End Date & Time
- Location
- Description

4. Weather Table: Stores user-specific weather settings or preferences.

- Weather ID (Primary Key)
- User ID (Foreign Key to User Table)
- Preferred Locations
- Units (e.g., Celsius, Fahrenheit)

5. HeadStart Table: Stores information about the HeadStart program for each major.

- HeadStart ID (Primary Key)
- Major ID (Foreign Key to Major Table)
- Overview (A brief description of what the HeadStart program offers for the Students)

6. Major Table: Stores information about different majors.

- Major ID (Primary Key)
- Major Name
- Department (If applicable)
- Description

7. Course Table: Contains the courses offered under each major.

- Course ID (Primary Key)
- Major ID (Foreign Key to Major Table)
- Course Title
- Course Description
- Level of Difficulty (e.g., Introductory, Intermediate, Advanced)

8. CourseContent Table: Details the content within each course.

- Content ID (Primary Key)
- Course ID (Foreign Key to Course Table)
- Content Title (e.g., Module Name, Week Number)
- Content Description

9. CourseResources Table: Lists resources for each course.

- Resource ID (Primary Key)
- Course ID (Foreign Key to Course Table)
- Language/Framework
- Resource Link
- Resource Type (e.g., Textbook, Online Tutorial)
- Level of difficult

10. CourseWork Table: Holds information about the coursework for each course.

- CourseWork ID (Primary Key)
- Course ID (Foreign Key to Course Table)
- Title (e.g., Assignment, Project)
- Description
- Teamwork (Boolean to indicate if it is a team-based work)
- Individual (Boolean to indicate if it is individual work)

11. HelpHomePage Table: Serves as a directory for different help categories.

- HelpHomePage ID (Primary Key)

- Category Name (e.g., Emergency Contacts, Health and Wellness, NavigationHelp, BugReport Table)
- Description

12. EmergencyContacts Table: Stores emergency contact information.

- EmergencyContact ID (Primary Key)
- HelpHomePage ID (Foreign Key to HelpHomePage Table)
- Contact Name
- Phone Number
- Description (e.g., Police, Fire Department, Medical Emergency)

13. HealthAndWellness Table: Contains information on wellness resources.

- HealthWellness ID (Primary Key)
- HelpHomePage ID (Foreign Key to HelpHomePage Table)
- Facility Name (e.g., Gym Name, Wellness Center)
- Address
- Contact Information
- Operating Hours
- Services Offered

14. NavigationHelp Table: Provides guidance on app navigation issues.

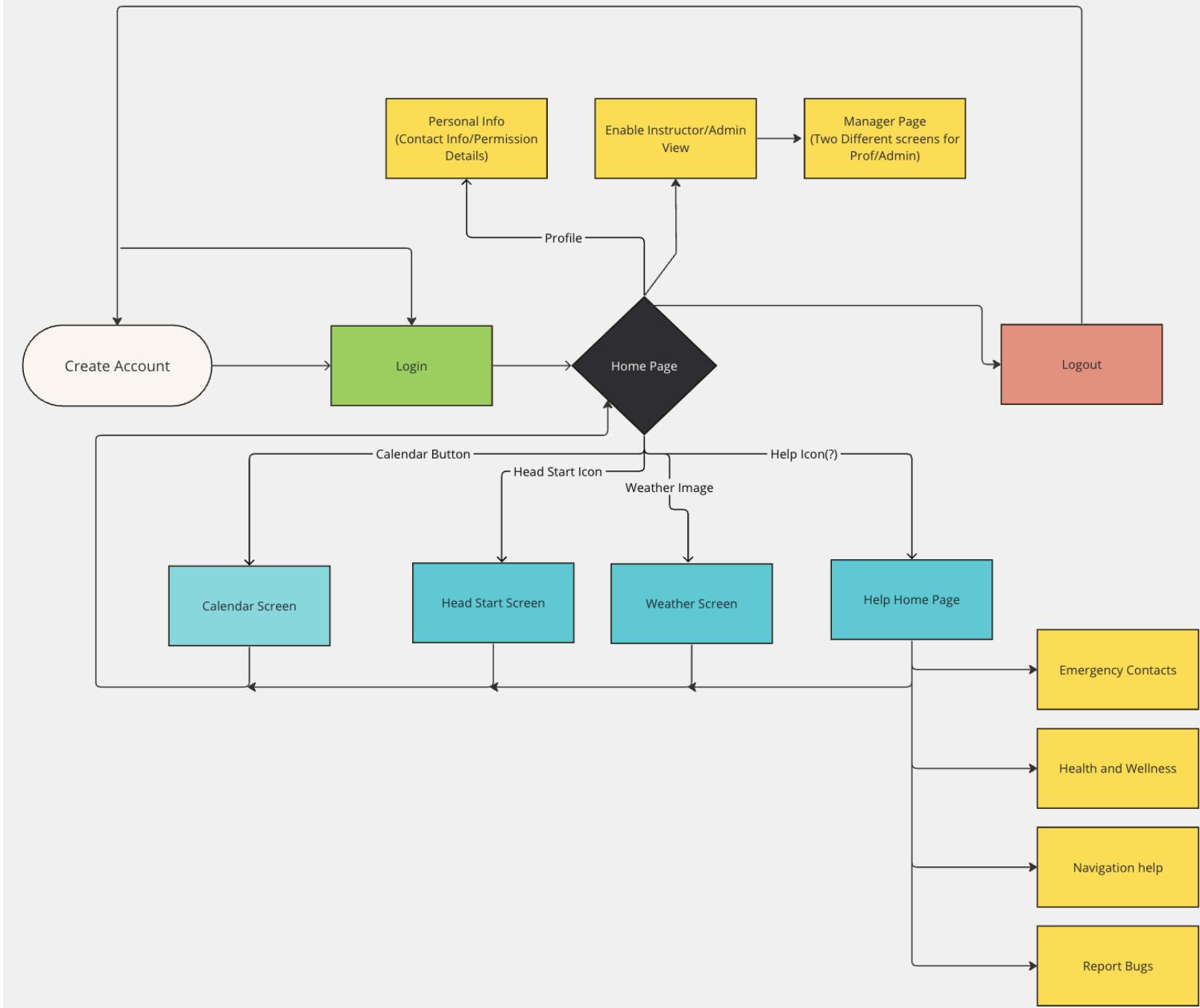
- NavigationHelp ID (Primary Key)
- HelpHomePage ID (Foreign Key to HelpHomePage Table)
- Problem Description
- Solution Steps (could be text, links to tutorials, or videos)

15. BugReport Table: Allows users to report application issues.

- BugReport ID (Primary Key)
- HelpHomePage ID (Foreign Key to HelpHomePage Table)
- User ID (Foreign Key to User Table, if user-specific)
- Description of Issue
- Steps to Reproduce
- Severity Level (e.g., Minor, Major, Critical)
- Status (e.g., Open, In Progress, Resolved)
- Submission Date

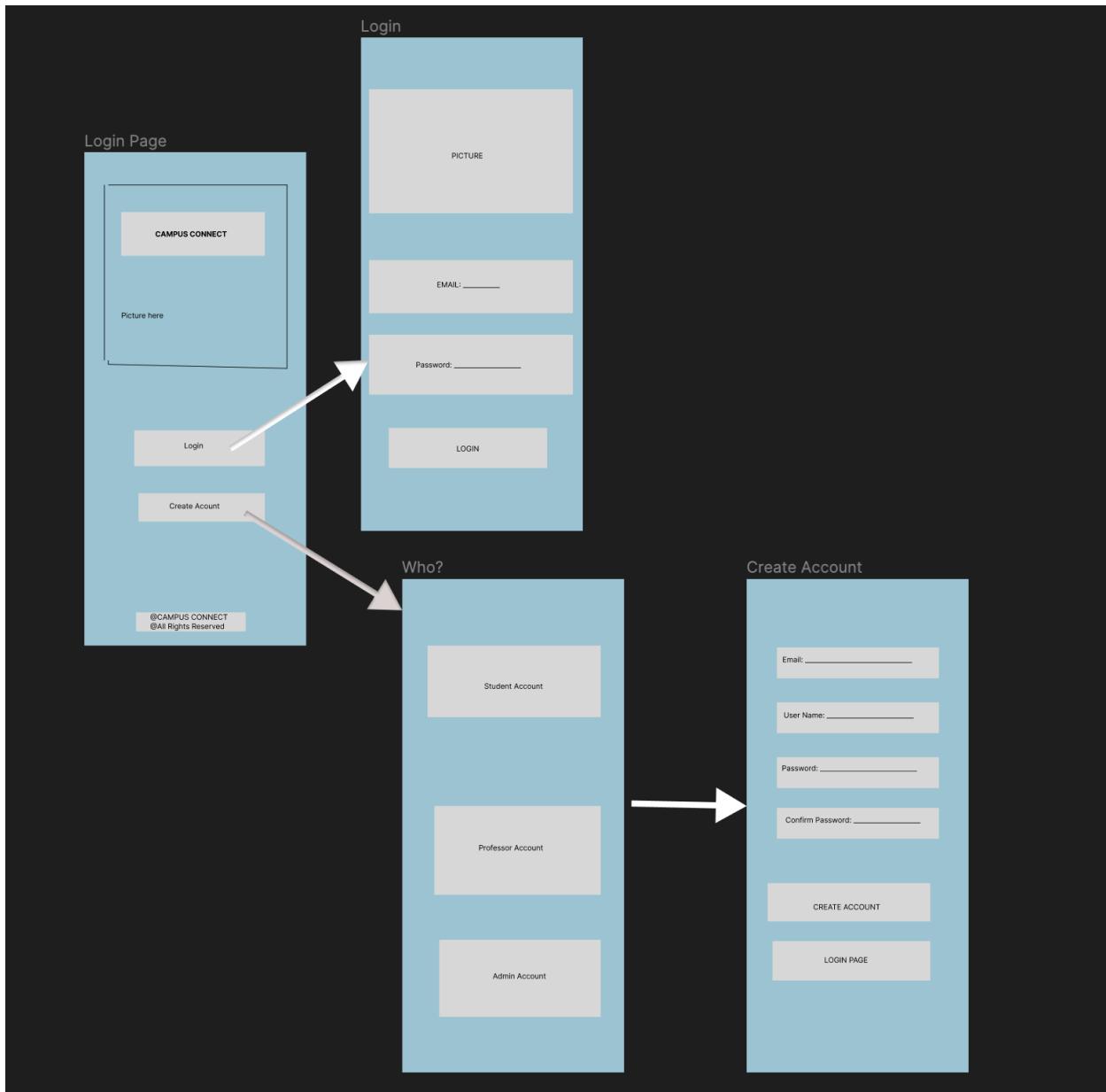
Screen Flow Diagram:

(By Abhay)



Login/Create Account Screen

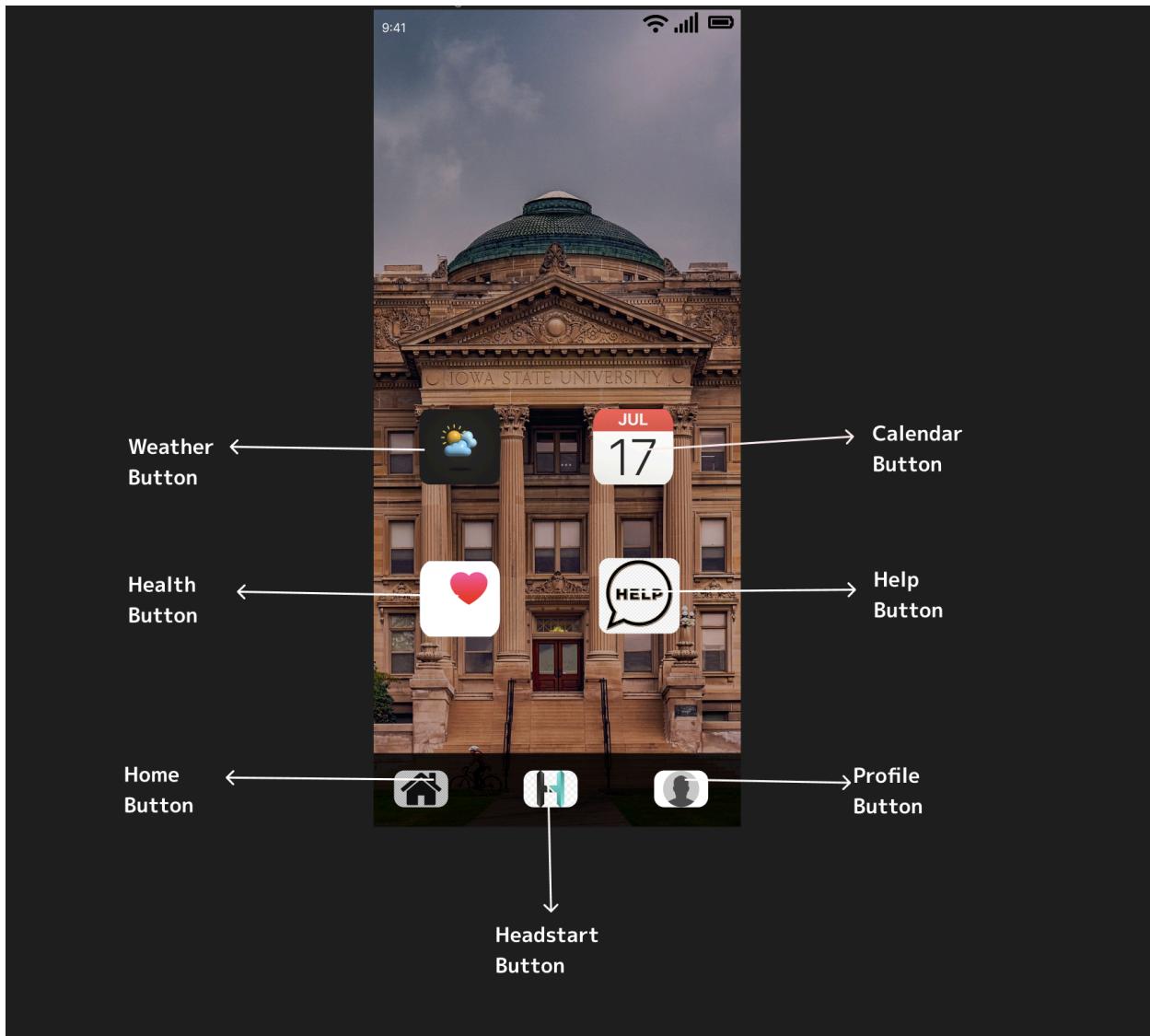
(By Abhay)



Screen 1 (Login Page) - Contains logo/picture for our app at the top of the screen along with the App Name. Further down, we have two buttons. The first button (Login Button) will lead us to a Screen Titled “Login”(Screen 2), where the user will enter the Email and password and finally click on the Login Button at the bottom. If the user is new to the app, then the user will select the second button in the “Login Page” Screen (Screen 1), which will lead the user to Screen 3 (Who? Page), where the user needs to select what kind of account he/she wants to create. Upon selecting the respective button, the user will be directed to the next screen (Screen 4 - Create Account) where they will enter their Iowa-State Email and password and create an account for themselves.

Home Screen

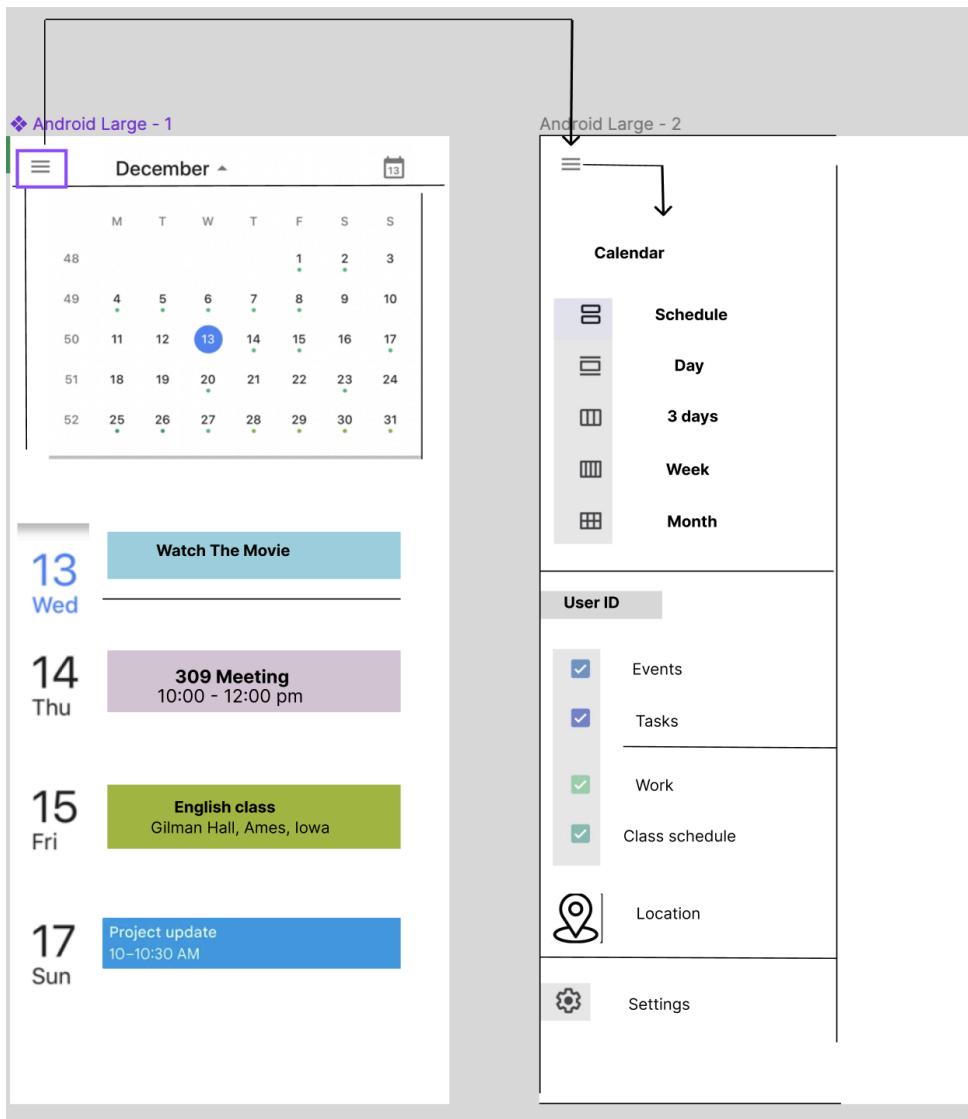
(By Meghasyam)



Welcome to our home screen. This is the brain of our App! It is more like a key to the doors. You will use this page to navigate to all other pages and use our app effectively. It has an icon for the weather, where you can access temperature, forecasts, and wind flow. It has an icon for the calendar, where you can see your class work schedules and create events like a club meeting, etc. There is an icon for health where you can access campus details. There is an icon for help where you can access emergency contacts, app navigation help, and report bugs. At the bottom, we have three options. One in the middle is Headstart, and it is our main thing. You will get the information needed for the courses. There is a profile icon where you can see the details.

Calendar Screen

(By Neha)

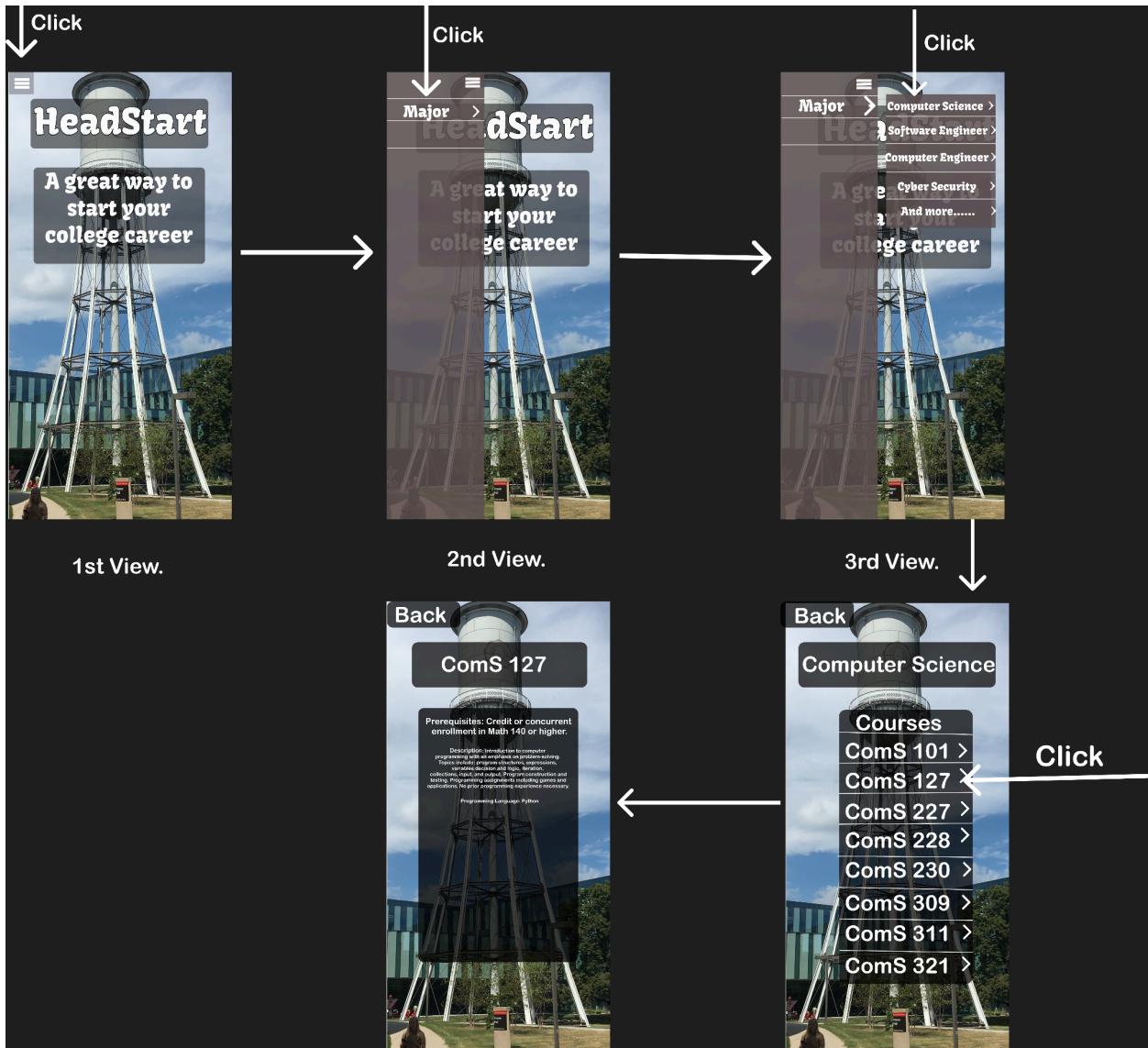


Screen 1: (Calendar Page) - The Calendar Page features a monthly calendar with the current date highlighted and a weekly schedule with color-coded events, denoting personal activities, birthdays, work events, and project updates, complete with titles, times and locations if needed.

(Screen 2) : A sidebar menu on a mobile interface includes a search bar, options for schedule views (day, three days, week, month), and quick access icons for events, tasks, work, class schedules, location services, and settings.

Head-Start Screen

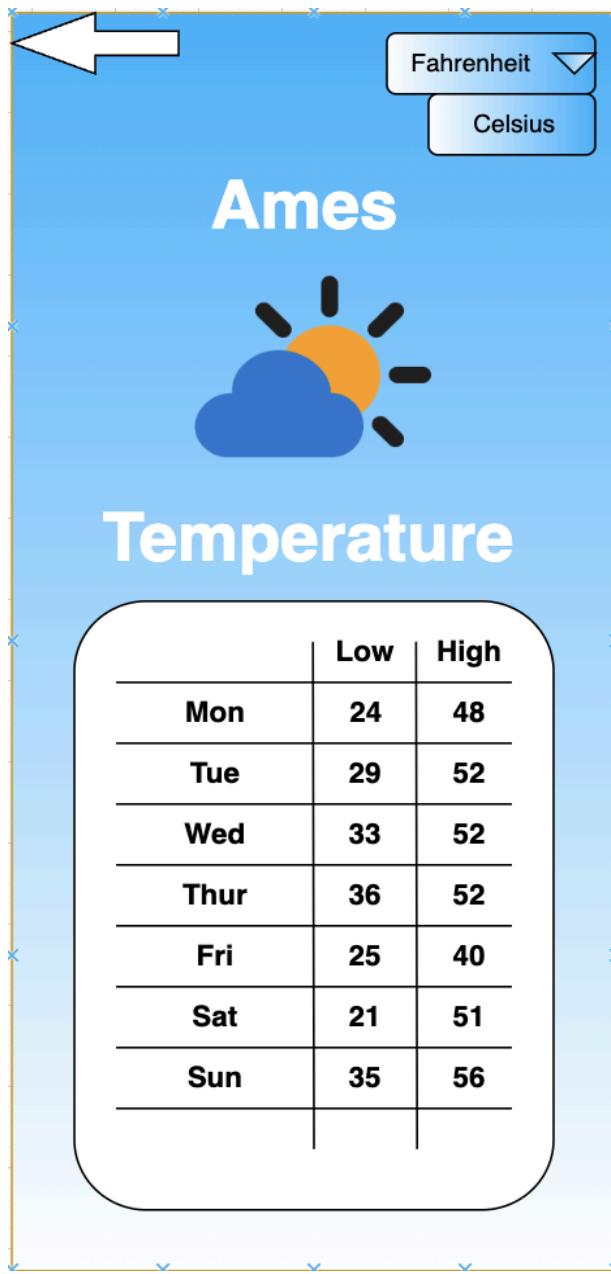
(By Umesh)



Welcome to our app's headstart page! At the top left corner, you'll find three bars. Clicking on these bars unveils a sidebar, offering seamless navigation to explore our app's features. Among these features, the "Majors" button stands out. Once selected, it opens up a world of academic exploration, presenting an extensive array of majors to choose from. Delve into your desired major and discover comprehensive course descriptions outlining the curriculum, potential career paths, and more. Additionally, gain insights into prerequisites, programming languages utilized within the major, and other pertinent details to aid in your decision-making process. Whether you're a high school student considering college options, a current student exploring different fields, or a lifelong learner seeking new opportunities, our app empowers your academic journey. With user-friendly navigation and rich, informative content, we aim to make the exploration of majors effortless and insightful. Embark on your academic adventure today with our app. Start by simply clicking those three bars and unlock a world of possibilities. Your dream major awaits!

Weather Screen

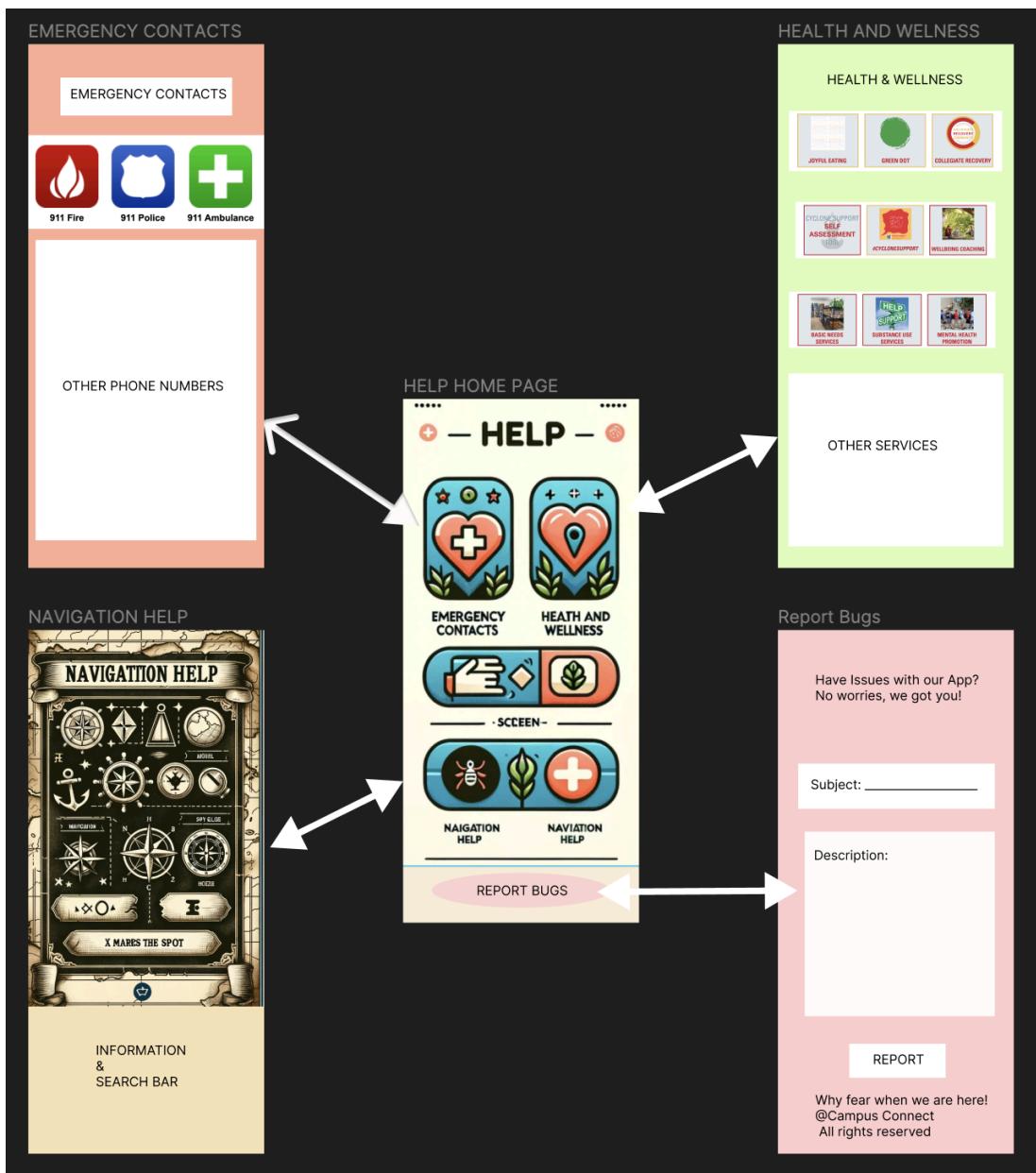
(By Neha)



Screen 1: (Weather Forecast Screen) - The top section highlights your current location, ensuring the weather forecast is personalized. Just beside it, a dropdown menu allows you to choose between Celsius or Fahrenheit for temperature readings. The main feature is the 7-day weather forecast table, listing days with corresponding low and high temperatures. An illustrative weather icon provides a quick visual reference of the current conditions, and the back arrow takes you back to the home screen.

Help Home Screen

(By Abhay)



Welcome to the Help Home Page (Screen in the center). Here, you will find important information, and you can report any bugs. If you click the “Emergency Contacts button” on the top left, you will be directed to Screen 2 (Titled Emergency Contacts). Over there, you will find phone numbers for various emergency locations, back to the Help home page. If you click the top right button, Health and Wellness Button, You will be directed to Screen 3 (Titled: Health and Wellness). Over there, you will find links to various services offered at Iowa State University, gym timings and an events list. Now, if we return to screen one and click the “Navigation Help Button,” you will be redirected to screen 4 (Titled Navigation Help). Over there, you will find pre-declared steps to navigate our app. This will make the users get a better hold of using our app. In screen 1 (Help Home screen), you will find a “Report Bugs” button at the bottom of the screen. Once clicked, you will be redirected to the report bugs screen (Screen 5), where you can enter and send the error/bugs you experienced while using our app. We value each and every one of your responses, and it will help us improve the app.

Profile Page

(By Meghasyam)

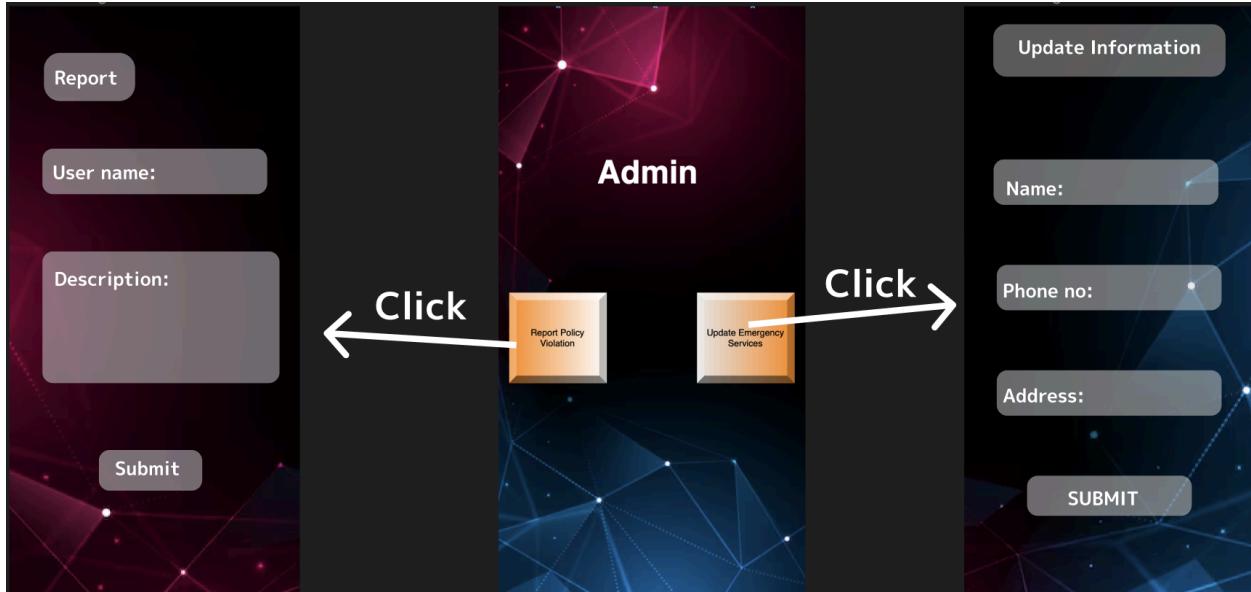
Name: Wade Wilson
Student ID: 11221973
Major: Kinesiology
Classification: Senior
DOB: November 22, 1973
Blood Group: A+
Email: wilson@iastate.edu

Name: Indiana Jones
Faculty ID: 07011899
Department: Archeology
DOB: July 1, 1899
Blood Group: O+
Email: Indy@iastate.edu

Now, you enter the Profile Page, where you can view your info. On the left, you will find the Students Profile page, where you can view your name, student ID, major and other information. On the right (screen 2), you can view the Professor/Admin/Advisor Profile page, which shows the same category of information. However, you will notice that there is the Faculty ID in place of the student ID, and you have a department section instead of the classification. That is all you need, right? Hang on tight. We will bring in more info/features to this page as well! Watch out for when our App releases. Go Cyclones!

Admin Page

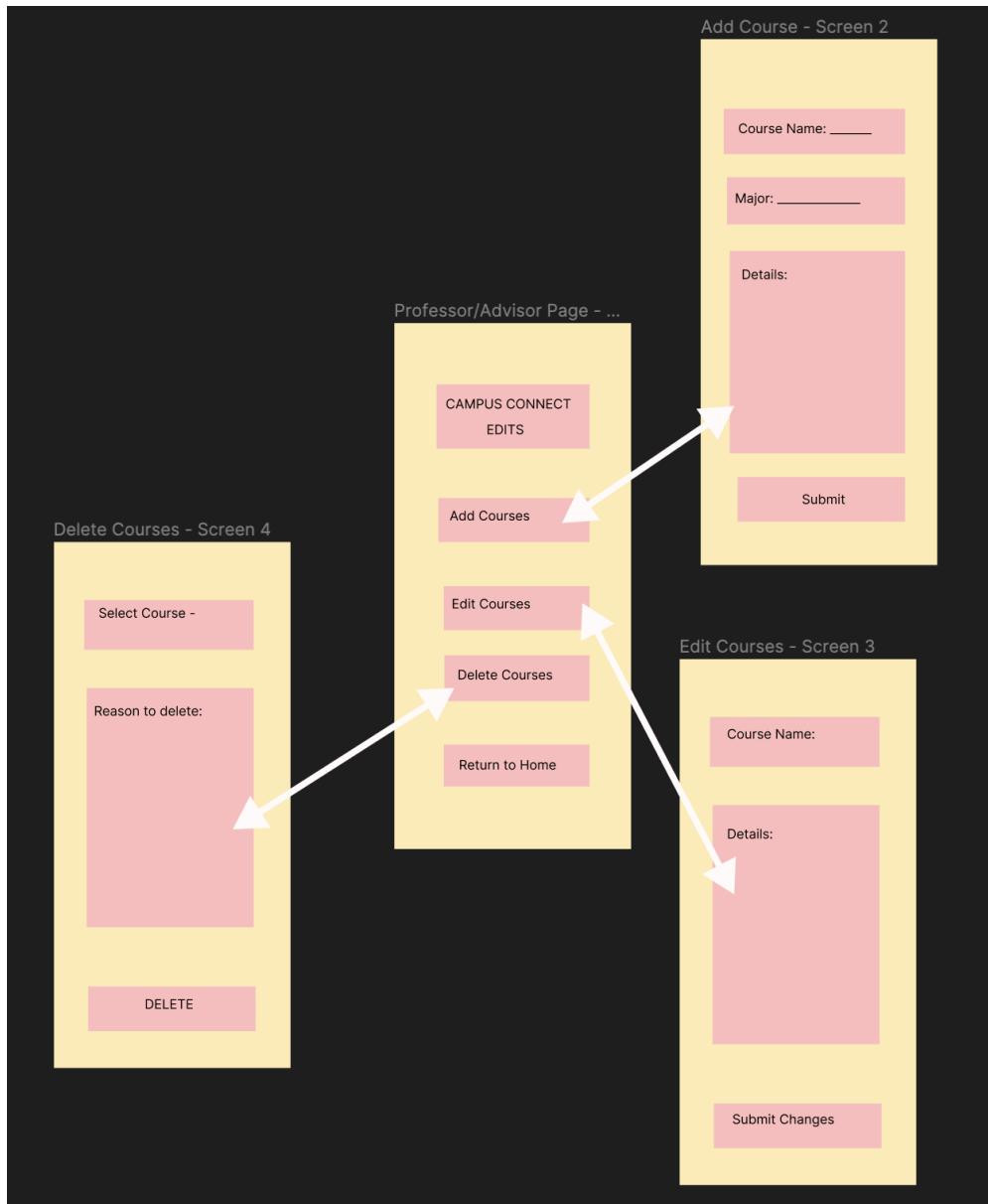
(By Umesh)



Welcome to the admin page of our app, where you hold the power to maintain a safe and reliable environment for all users. Here, you'll find two essential features: the "Update Emergency Service" button and the "Report Policy Violation" button. The "Update Emergency Service" button grants you immediate access to crucial emergency service details. With just a click, you can ensure that accurate and up-to-date information is readily available to users in times of need. Whether it's updating contact numbers, addresses, or other vital information, this feature empowers you to keep emergency services accessible and effective. On the other hand, the "Report Policy Violation" button equips you with the means to address any breaches of our app's policies. If you encounter users engaging in inappropriate behavior or providing false information, this feature allows you to take swift action. By reporting violations, you help maintain a safe and trustworthy community environment for all users. With these powerful tools at your disposal, you play a pivotal role in upholding the integrity and reliability of our app. Thank you for your commitment to ensuring a positive experience for everyone.

Professor/Advisor Page

(By Abhay)



In the Advisor/Professor Page, users can add, remove, and edit courses. If you click on the “Add Courses” Button in the home screen of the advisor/professor page, you will be redirected to screen 2 (titled: Add courses). Over there, you can enter the course name, select the Major, add details about the course, and finally, click on the Submit Button.

In Screen 1, if you click on the “Edit Courses” Button, you will be directed to another screen (Titled Edit Courses). In that screen, you will be able to select the course, edit its details, and submit the changes by clicking on the Submit Changes Button. If you click on the “Delete Courses Button” in screen 1, you will be redirected to screen 4 (Titled: Delete Courses). You will be able to select the course, enter the reasons, and click on the delete button. Finally, if you click on the “Return to Home” button in Screen 1, you will exit out of the professor/advisor page and you will go back to the App’s home screen.

About Us

1. Abhay Prasanna Rao

- I am a Junior Majoring in Computer Science and minoring in Data Science and Cyber Security. I am a front-end developer for this application, and I plan on frequently helping my fellow team members in the backend process. I aim to make this application work smoothly and achieve the goals set for this application.

2. Meghasyam Peddireddy

- I am a sophomore majoring in computer science and minoring in data science. I am doing the front-end part of this application. I would like to know more about the backend of this application.

3. Neha

- I am Neha Tirunagiri, a junior majoring in Computer Science and Minoring in Data Science. I am a Backend Developer for this application. However, I am keeping myself knowledgeable in frontend technologies for a comprehensive understanding and contribution to the team. I aim to use my knowledge to succeed in this course and try to bring effective improvement within my field.

4. Umesh Sai Teja Poola

- My name is Umesh Sai Teja Poola. I am a junior majoring in computer science. I am doing backend development for app creation. I collaborate closely with front-end developers, ensuring seamless integration and optimal performance of our applications.