Screen Sketches
SE 3090: 2_Swarna_4

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1) Actors.....

- **Students**

  Have access to features that allow them to:
  - Sign up and log in with a unique user ID and password
  - View features such as class **Grades**, **Campus News/Events**, Campus **Bus Routes**, and **Dining Hall Menus**.
  - Make **Friends** with other student users.
  - Make **Study Groups** with Friends made.

- **Teachers**

  Have access to features that allow them to:
  - Sign up and log in with a unique user ID and password
  - View features such as class **Grades**, **Campus News/Events**, Campus **Bus Routes**, and **Dining Hall Menus**.
  - Modify student grades such that it is reflected on the student user's end in real-time.

- **Administrators**

  Have access to features that allow them to:
  - Sign up and log in with a unique user ID and password
  - View features such as **Campus News/Events**, Campus **Bus Routes**, and **Dining Hall Menus**.
  - Set up classes that are assigned to teacher and student users based on enrollment.
  - Manage dining hall menus.

2) Non-Functional Requirements.....

- The application must support a minimum of 5 active users
- The application should be able to reflect real-time changes being made by administrator users, such as a new class being added or assigned or a dining hall option being declared as closed.
- The user should not have to wait for longer than 5 seconds for the login or sign-up requests to be processed or completed.
- The user should not have to wait longer than 0.5 seconds for any UI elements to respond.
- Features should be scalable, allowing for an increase or decrease in the amount of data being used in the application. This includes the number of users and bus routes, dining hall options and menus, the number of study groups a student is involved in, and the number of campus events being showcased.
- The application must maintain a visually appealing UI across all Android screen sizes.

3) Table & Fields.....

- **People**
  - User id
  - User name
  - Password
  - email ID
  - ifActive (status)
  - Person details
    - ID
    - Full name
    - Phone number
    - Role (student, teacher, or administrator)
    - Sign up information

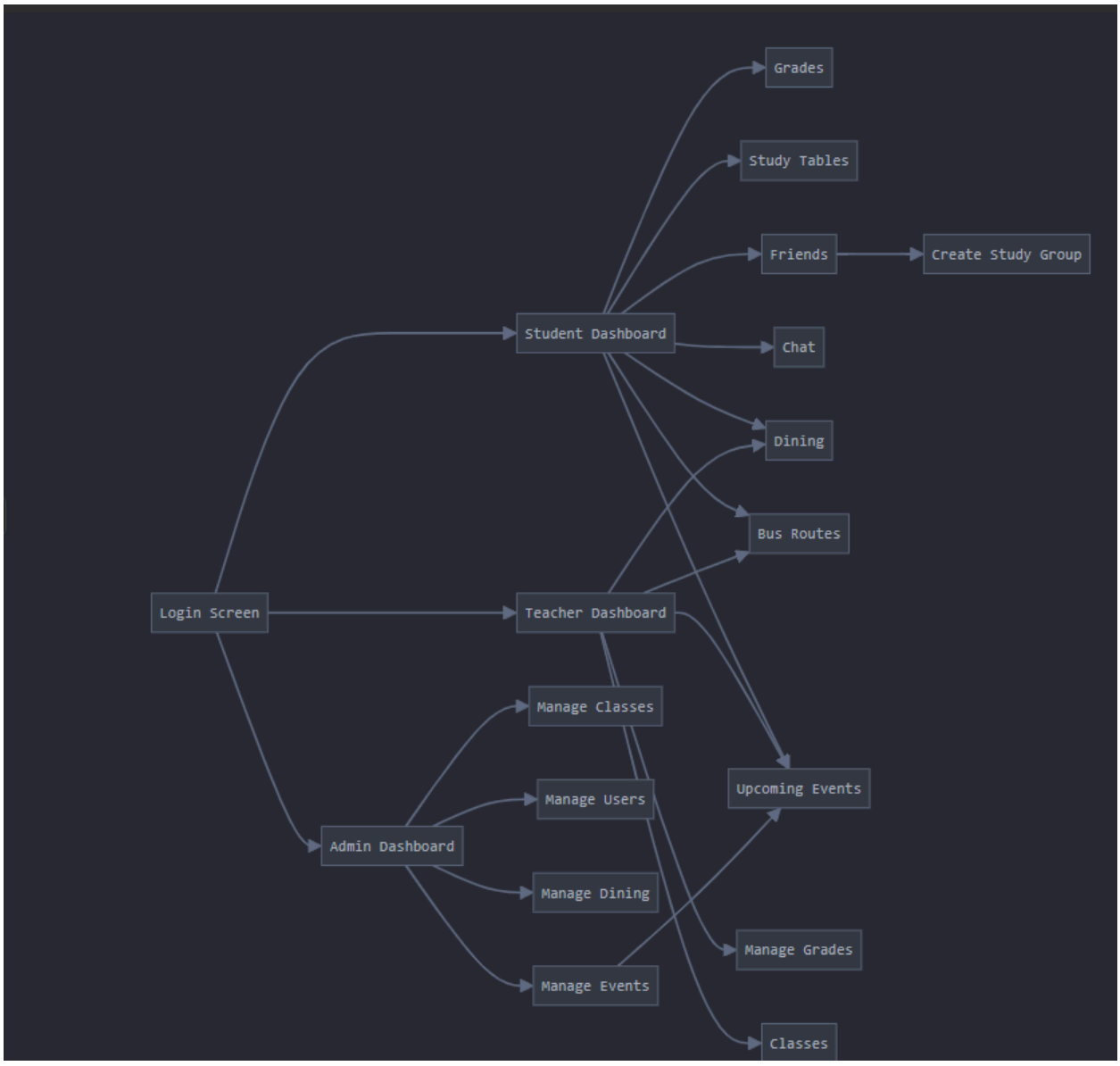
- **Bus Routes**
  - Route ID
  - Route Name
  - Route Information
    - Stops
    - Timing

- **Events**
  - Events ID
  - Events name
  - Events content

- **Dining Halls**
  - Dining Option ID
  - Dining Option name
  - Dining Option Location
  - Dining Option menu
  - Dining Option operational hours

- **Classes**
    - Class ID
    - Class name
    - Assigned teacher user
    - Assigned students
        - Student grades
    - Number of students enrolled

4) Screen Flow Diagrams.....



<u>The flow diagram illustrates how users navigate through the CyWorld app based on their roles:</u>

- **<u>Entry Point:</u>** All users begin at the Login Screen

- **Role-Based Pathways:** Login branches to Student, Teacher, or Admin dashboards

- **Core Navigation:** Each dashboard connects to specific functional screens:

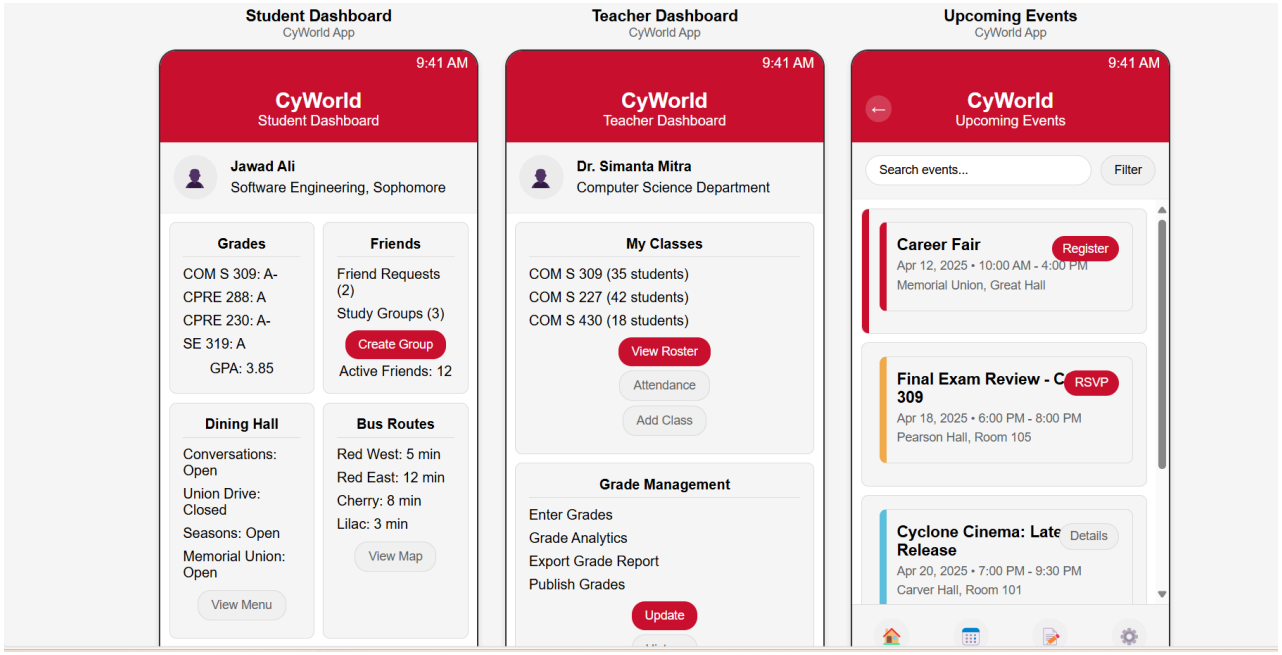
- **Students access:** Grades, Study Tables, Friends, Chat, Dining, Bus Routes, Events
- **Teachers access:** Class Management, Grades Management, Dining, Bus Routes, Events

- **Admins access:** User Management, Class Management, Dining Management, Event Management

- **Cross-Functional Areas:** Common resources (Dining, Bus Routes, Events) are accessible from multiple dashboards

- **Return Paths:** All functional screens return to their respective dashboards

5) Screen Sketches.....



The sketches showcase the primary interfaces with consistent design elements:

- **Student Dashboard:** Centralizes Jawad Ali's academic performance (3.85 GPA), social connections, and campus resources. Features grid-based cards for grades, friends/study groups, dining options, and transportation.

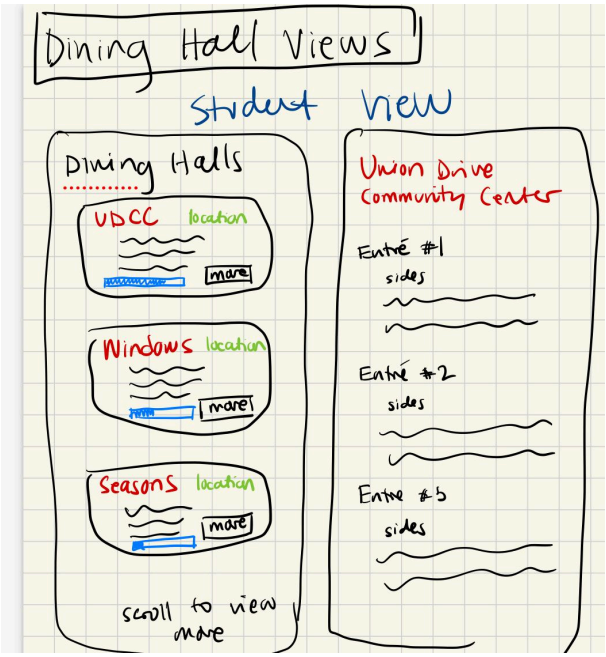
- **Teacher Dashboard:** Prioritizes Dr. Mitra's teaching responsibilities with expanded class management and grading tools. Maintains access to campus resources while focusing on faculty needs.
- **Upcoming Events Screen:** Presents campus activities with color-coded categories (career, academic, entertainment, social) and provides search/filter functionality for event discovery.

- All screens maintain ISU's cardinal red branding and consistent navigation patterns. The user interface prioritizes quick access to frequently needed information while maintaining a clean, organized layout that works across different device sizes.

Student view: This will be similar to what the student user will see when login into the app, they will be in the dashboard of the student view which will have navigation throughout the entire app.

Chat Interface: Users will be able to communicate with each other through the app in real time with a websocket of a chat interface within the application. Users will be able to send multiple user messages that they are friends with on the app, so they won't be able to send anyone a message unless they have been connected through the friends feature.

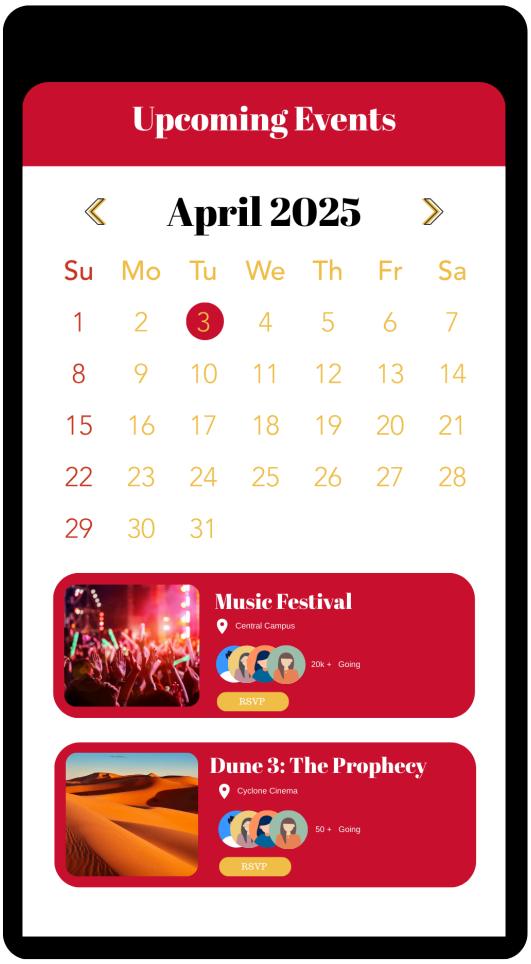
Bus Routes: The bus routes for the student view and teacher view will be identical since the bus system has routes dedicated to certain locations around Ames and Campus. There are multiple types of bus that will be displayed and the time in which they plan to arrive at a specific stop on the route it has.
All these screens will be more customized to be visually appealing than the sketches we have implemented, corresponding to colorways we have designed for the application of Cyworld to have a similar color associated with ISU. Students will be able to navigate easily through the app with their respective views to have more efficient results for what they may be looking for or need to access.



Student View: When the students click into the dining hall information that will see the middle screen shown above. This is the general dining hall dashboard, showing general information about all the dining locations and options on campus. As you can see, it shows the location of the dining hall. The black squiggle would be the most popular item at that particular location. And the blue bar at the bottom would show how busy the location is depending on the day or hour.

The screen on the right of the Dining Hall Dashboard shows what happens when you click on the "more" button. In this example it shows the information for the Union Drive Community Center Dining Hall. This page would show more detailed information about what is available at that dining hall. It shows the 3 (or more) Entree options as well as the sides that are offered with the entrees. The black squiggles are going to be the specific nutritional information like calories, serving size, and allergens that might be in the food.

Admin View: The admin view allows specific information at each dining center to be edited, and even additional comments to be added as seen fit by the administrator. These comments could be stuff like if tour groups are going to be there. This interface also allows the administrator to add new menu items, edit nutritional facts, and edit any information throughout the day that they might need to do in emergencies.



<u>Student View & Teacher View:</u> When students and teachers click on the campus events option on their dashboards, they will also have access to a detailed overview of events taking place on campus within the month. It shows the event taking place depending on the day selected on the calendar, the location of the event, and how many other users have decided to RSVP for the event. It also gives the user an option to do so as well. Since an Iowa State API will be used for this page, administrators are not required to manually put in events and will thus not have access to it.