

# Team 06 - Fleetwood Stack Conductor App

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# Statement of Purpose

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The Conductor app is a collaborative platform designed to help instructors, TAs, tutors, team leads, and students manage course-related activities like scheduling sessions, organizing groups, sharing materials, and tracking participation. The goal is to create a lightweight, user-friendly, and accessible system that is acceptable to all stakeholders. The Conductor app aims to reduce administrative overhead and improve transparency across teaching teams with the goal of allowing the class to run smoothly and giving staff more time to focus on teaching and mentorship.

# User Personas

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## Instructor

Oversees multiple classes and teams. Needs structured tools to manage groups, monitor progress, and keep records organized. Values simplicity, documentation, and minimal dependencies.

## Teaching Assistant

Manages several student teams. Needs fast access to group info, attendance, and participation records. Aims for consistency and fairness in evaluations.

## Tutor

Provides on-demand help during labs. Needs a system to manage student requests and highlight frequent issues for self-learning.

## Team Lead

Leads small project teams. Needs a shared space to organize meetings, track attendance, and record notes about team performance and dynamics.

## Student

Participates in teams and wants transparency in attendance and progress tracking. Needs simple tools to share availability and reflect on learning.

# Proposed Features

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## User Management

Handles user registration, authentication, and role-based access.

Integrates Google OAuth for secure sign-in and manages permissions across the platform.

## Class Directory

Displays all users, courses, and teams in one searchable list.

Allows filtering by role or class and connects shared data across other features.

## Attendance System

Tracks attendance for each session through check-ins linked to user roles and class data.

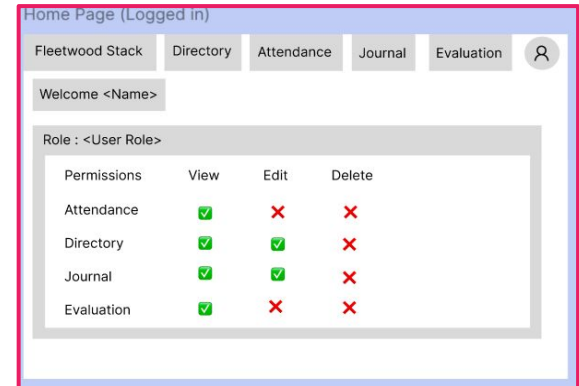
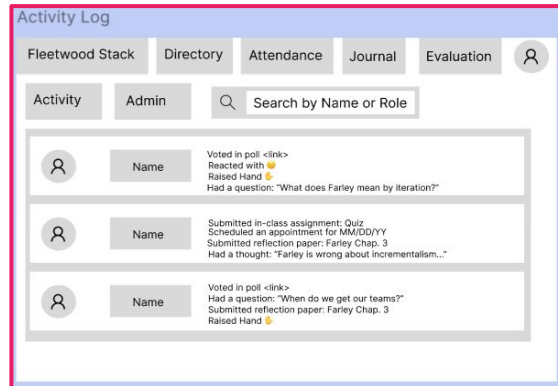
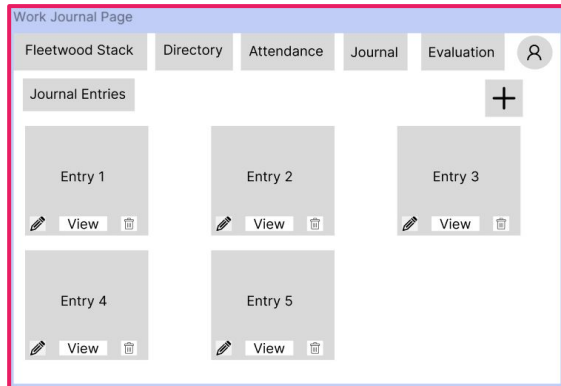
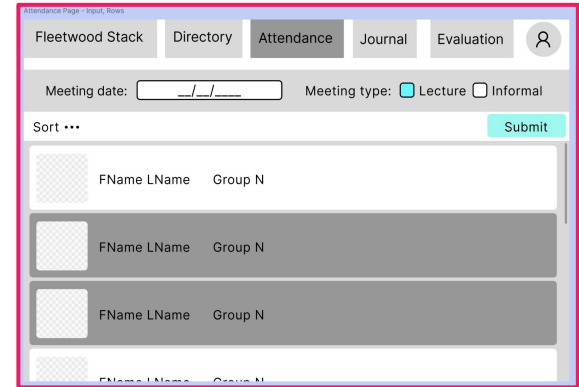
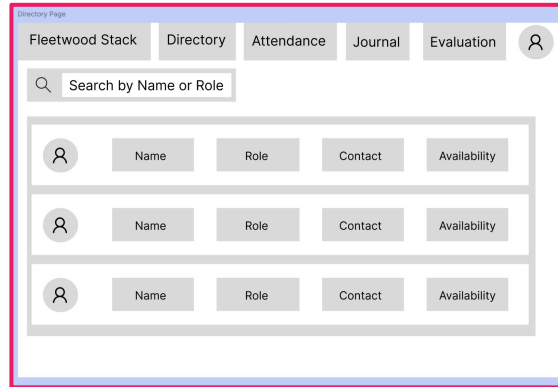
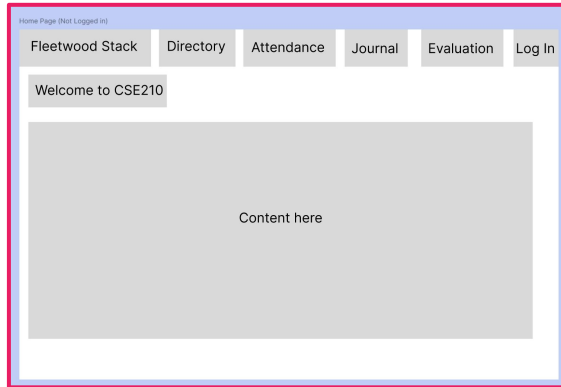
Designed to be reliable and easy for instructors to review.

## Work Journal

Lets students record daily progress, blockers, and reflections.

Summaries help instructors monitor engagement and identify common challenges.

# Wireframe - Figma



# Risks & Rabbit Holes

## General

- Scope creep by adding unnecessary features
- Too many basic features, not enough depth
- Underestimating 5-week timeline

## Feature 1 – User Management

- Roles deleted without clearing linked entries
- Users bypass checks via API or URL edits
- Unencrypted tokens expose Google accounts

## Feature 2 – Class Directory

- Overly complex design with too many dependencies
- Integration issues with shared APIs or UI components
- Accessibility or privacy inconsistencies

# Risks & Rabbit Holes

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## Feature 3 – Attendance System

- Data not syncing between frontend and backend
- Unauthorized visibility of attendance data
- Time zone inconsistencies
- Server outages during check-in window

## Feature 4 – Work Journal

- Low user adoption due to complex inputs
- Poor handling of emotional sentiment discourages honesty
- Private notes visible only to author
- Process must stay simple and quick to fill

# Timeline

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| Week | Milestone   | Dates for Completion<br>(Thursday of each week) |
|------|---|---|
| 5    | Planning - Design - Setup   | Oct 30  |
| 6    | Backend - Foundation for each Feature<br>Frontend - HTML + Views for each Feature | Nov 6   |
| 7    | Write Unit Tests and Documentation<br>(Complete unfinished tasks)                 | Nov 13<br><b>Midpoint Presentation</b>          |
| 8    | Work on API routes, connect frontend with backend                                 | Nov 20  |
| 9    | Integration Testing & UI Polishing  | Nov 27<br><b>Deploy</b>                         |
| 10   | Revisit, Finalize and Work on Presentation  | Dec 4<br><b>Code freeze</b>                     |
| 11   | Prepare Presentation  | Dec 11<br><b>Final Presentation</b>             |