ADAPT Community Network

Systems Design Document

August 27, 2025

Revision History

Date	Version	Author	Changes

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1 Project Overview

1.1 Project Name:

This project will be called the ADAPT Community **"Attendance Tracker**", or just Attendance Tracker. For now, I will opt to keep it simple until a more creative or appropriate name is proposed.

1.2 Project Description:

This project was proposed and created with the goal of streamlining and consolidating the workflow ADAPT Community network specialists into one platform. Our responsibilities Include the following:

1. Taking daily attendance for our classes
2. Adding new students to our classes
3. Creating and removing classes from our schedules
4. Submitting weekly schedules
5. Translating class and student data to pre-styled excel sheets

As of now, all of the responsibilities above must be done manually, which is a common source of stress for the specialists. At its completion, the project will allow for the automation for every single responsibility in one place.

1.3 Stakeholder:

This project was proposed by coworker Wilma Cox, and will be supported by Shaniece Frank, Peter Cobb, and Chevonne Brown.

1.4 Assumptions:

Initially, this project was started in May, with a release sometime in September. Unfortunately, due to hardware failure, and a priority on another ADAPT project for jeopardy score keeping, the completion date for the first version had to be pushed back. With a new laptop, and the scorekeeping project completed, there can now be clear timelines for each milestone. Moving forward, I will proceed with the following assumptions:

Resource Assumptions:

- Development will be handled primarily by me, with UI/UX and general aesthetics handled by Wilma Cox.
- Specialists will create test classes alongside test students for validation.
- Specialists will work within a stable and easy to use environment.

Technology Assumptions:

- For the back-end, all data processing will be done with ASP.NET, with views being handled By HTMX and Alpine.js for interactivity.
- Class and student data will be exported to the official specialist, pre-styled excel sheet.
- All class and student data will be managed by a relational database, most likely PostgreSQL.

Scope Assumptions:

- Version 1.0 will include the ability to add classes, students, and export to excel sheets.
- Additional features like the admin dashboard will be released with later versions of the app.

Risk Assumptions:

- No other projects will interfere with the development timeline of this project
- Staff will be able to start using it as soon as the app is released.

Dependency Assumptions:

- Specialists will access the application through modern browsers (Chrome, edge, Safari, etc).
- Application will be hosted on existing IT infrastructure.

Milestones:

- Version 1.0 release date - **10/1/25**
  - - Features: Add classes, Add students, export them to excel
- Version 1.1 release date - **11/1/25**
  - - Features: Admin page for supervisors to view specialists classes.

1.5 Core-features:

This project as mentioned before will consolidate every single clerical responsibility into a single app to reduce complexity and improve efficiency. Here is a summary of the features:

- Add classes
- Add Students
- Export classes and files to excel
- Admin page for supervisors to view and edit classes/schedules
- Create weekly schedules

2 Functional Requirements

2.1 Performance:

2.2 Scalability:

2.3 Security:

2.4 Reliability:

2.5 Maintainability: