

SyncUp!



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Project Group 2

Team name: JTNF

Project Description

SyncUp

This application should allow people to view a personal virtual calendar and be able to create, read, upload, and delete events as needed. There should be a friendship system for users to establish a social network. These connections will be used to allow affiliated users to view each other's calendars and availability. The application should also analyze data and suggest recommended dates and times to establish plans.

MIT License

MVC Architecture

Github repo: <https://github.com/teachingworkshops/comp4960-spring-2024-project-group-2-syncup>

Problem Statement

- **Absence of Centralized Planning:** Due to busy and dynamic schedules, friends and family members have trouble planning social gatherings with one another and often struggle to accommodate everyone's availability with a lack of a centralized source of information.
- **Inefficient Communication:** Without centralized planning, reaching out to members individually leads to excess time and effort.
- **Overlapping of Events:** Struggles in coordination could lead to mistakes and the creation of events that overlap with one another or situations where invitees are unable to attend.

Our Solution

- An application that people can upload data about their schedule and availability
- Other people in one's social network can join and provide their data as well
- Both will be analyzed by the application to suggest recommended dates and times to establish event plans

Competitors

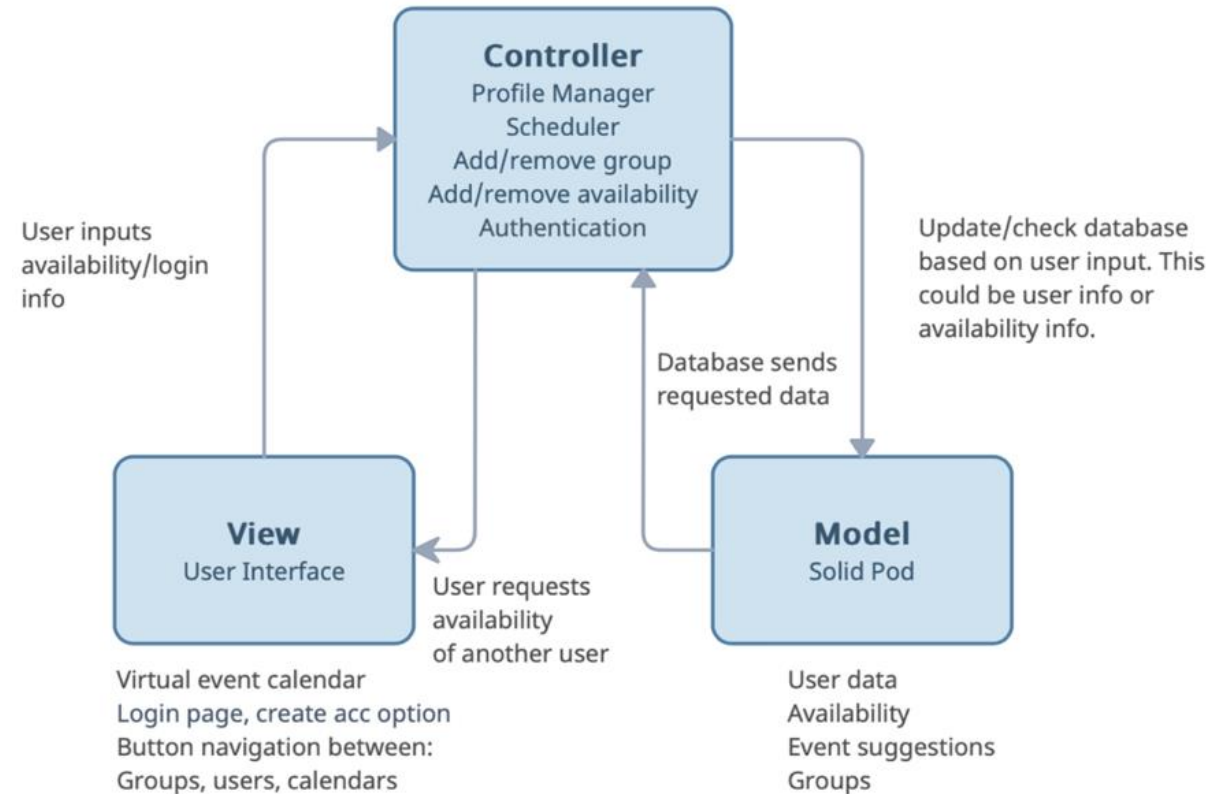
- Apple Calendar
 - No suggestion for meeting times
 - Can't view other's availability
- Google Calendar, Outlook Calendar
 - See someone else's calendar but no suggested meeting time
- When2Meet
 - Input availability one time, not for continuous use

Novelty

- Continuous calendar where users can enter and update their availability as needed
- Social networking aspect
- System makes recommendations to users with regards to date and time for events
- The application will create and save events to the calendar at the request of users

Architecture

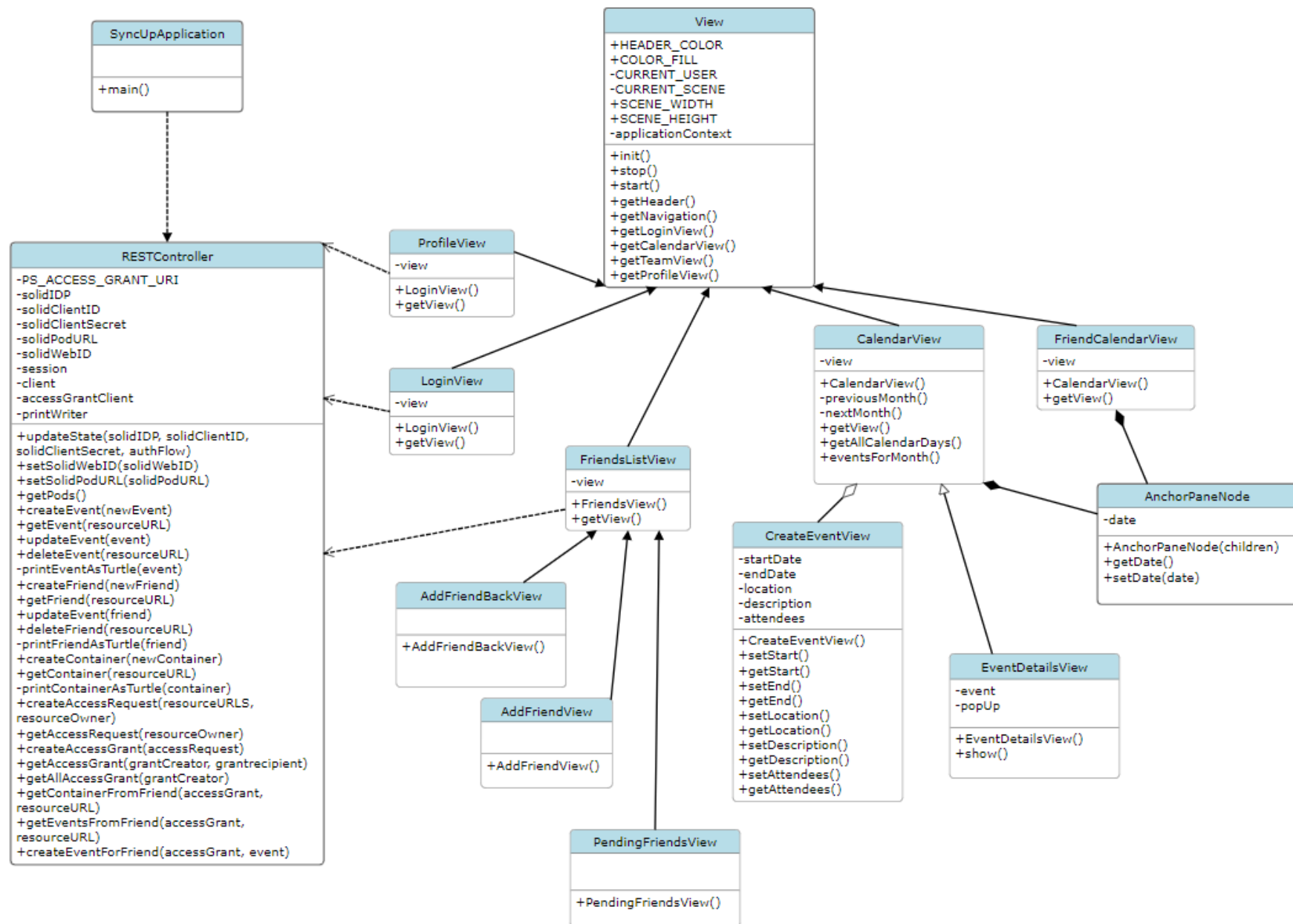
SyncedUp MVC Architecture



Technology Stack

- Solid: A framework/principles designed for a decentralized web in mind that prioritizes users having control over personal data. Different applications can use and retrieve the same data as it is separated from a single entity (organization). Personal online data stores (Pods) store data and share it with applications as needed.
- WebID: A Uniform Resource Identifier (URI) used in Solid to identify a unique user. This is used in authentication and authorization when manipulating data from the Pods.
- API: Application Programming Interface (API) is used for two components to communicate with each other which Solid principles uses HTTP Requests such as GET, POST, PUT, and DELETE. This will be used to access data from Solid Pods and perform CRUD operations.
- Inrupt Java Client Libraries: A library of methods and tools assembled to aid in the development of Solid based applications with the Java programming language.
- JavaFX: A framework for building UI for Java applications. It features many useful tools for creating functional and appealing interfaces.

Implementation



Testing Examples

Issue 1: Sending Friend Requests

- Fabio had 2 pods that he sent friend requests between
- Created containers for incoming and outgoing friend requests
- Adjusted Access request/grant time frames for testing
- Displaying a friend's calendar events to see if the access grant was successful
- Pass Criteria: Access request was received by the requestee. If the request was granted, then the requester saw the friends Calendar upon refresh.

Issue 2: Displaying Calendar events

- Access the user's pod for the YearMonth container that correlates to the YearMonth displayed on the Calendar
- Using Penny to view the containers and resources stored in Pods
- Pass Criteria: The events displayed on the UI match those in Penny. "Match": displayed on the correct date and the fields(Start date/time, end date/time, location, description, attendees) have the same values

A large orange circle is centered on a white background. Inside the circle, the word "Demo" is written in white. Below the word is a white, hand-drawn style wavy line.

Demo

A large orange circle with a thin white border, centered on a white background.

Take aways

Future Revisions

- Teams feature
- Support other Solid Server Providers besides Inrupt PodSpaces
- Update operations to event and friend resources
- UI/UX improvements