



ScheduEd

CS 691 ASYNCHRONOUS

CAPSTONE

TEAM 1

Professor Henry Wong
Spring 2025

AGENDA T

1. Team Member Roles and Responsibilities
2. Improvements
3. Project Description
4. Team Working Agreement
5. Schedule
6. Personas
7. MVP
8. Technologies/API
9. Algorithms
10. Sprint 1 Summary
11. Product Backlog/Sprint 2 Test cases/Sprint 2 Stories
12. Sprint 2 Completed/Not Completed
13. Metrics/Team Velocity
14. Burndown Charts
15. Retrospective
16. Sprint 3 Planning
17. Project Demo and APIs
18. Group Wiki Page

TEAM MEMBERS T



Sabrina Scaccio:
Scrum Master /
Developer



Thomas D'Anna:
Front End Developer



Justin Rivera:
Front End Developer



Victor Zapata:
Back End Developer



Michael Silva:
Back End Developer

IMPROVEMENTS

- First sprint where we focused mainly on code, rather than the planning. We were able to split up front-end and back-end between team members and then join the code in one of our meetings.
- We had more meetings broken off from larger group dependent on what team members were working on. Front end team members met separately, and the back-end team did the same.
- We were done with different parts of the sprint earlier in the sprint, not leaving things until the last minute.

PROJECT DESCRIPTION S

- ScheduleEd is a scheduling app that will assist teachers, parents, and students with the process of booking, managing, and tracking tutoring sessions. This app will focus on alleviating scheduling conflicts among all involved. Often, students have various commitments after school that are hard for the parents to manage. The times of these various extracurricular activities change. This has a trickledown effect on the teachers. This app will allow parents to book with a more flexible approach. They can go week by week, selecting times that work for them and their child. This app will eliminate scheduling conflicts, reduce ineffective communication, and avoid double-bookings and no-shows. In just the tap of a button, parents and students will be able to book, cancel, and reschedule appointments! The app will remind students/parents of their sessions and will allow the tutor to have a better scope at their week. It also will allow the tutor to notify parents of available times, rather than going back and forth, guessing what time will work. This app will aid many teachers, private tutors, and tutoring centers with a way to manage their learning schedule in a much more organized fashion.



TEAM WORKING AGREEMENT S

All team communication will occur using Microsoft Teams/1-Message

We remind each other that we are all in this together, and when conflicts do arise, we tackle them as a team and will help guide each other.

Meetings will be held using Microsoft Teams. We will meet weekly on Wednesdays @8:00 pm. We will add meetings as needed, to stay on top of deadlines. Meetings will be about a half hour.

At the beginning of each sprint, we will hold a sprint planning meeting, in which everyone is given their tasks.

Before the sprint is over, we will hold a meeting on our retrospectives.

Each team member will understand their role and what they are responsible for.

TEAM WORKING AGREEMENT CONT. S

Everyone will adhere to the due dates and the due date of when we want tasks done, will be discussed at the meeting.

Each team member has their own task but is reminded that we are a team, and things may not go as smoothly for others.

When there are conflicts within your own task, it is required that you tell the team immediately so that they can assist you and there are no delays in due dates.

Each team member is asked to come to the meetings fully prepared with their task.

We will continue to learn through this project and produce new innovative ways to tackle this capstone project.

Final work should be submitted as follows:

- The team has reviewed your work
- There are no errors within your code
- All tasks were tested
- Work meets the criteria of the class
- Code is uploaded to Github
- All aspects of the sprint are complete

PROJECT SCHEDULE

- Weekly Meetings!
- Sunday
/Wednesday @ 8pm!
V

	Start	End
Sprint 0	January 21st	February 10th
Sprint 1	February 11th	March 10th
Sprint 2	March 11th	April 7th
Sprint 3	April 8th	May 5th

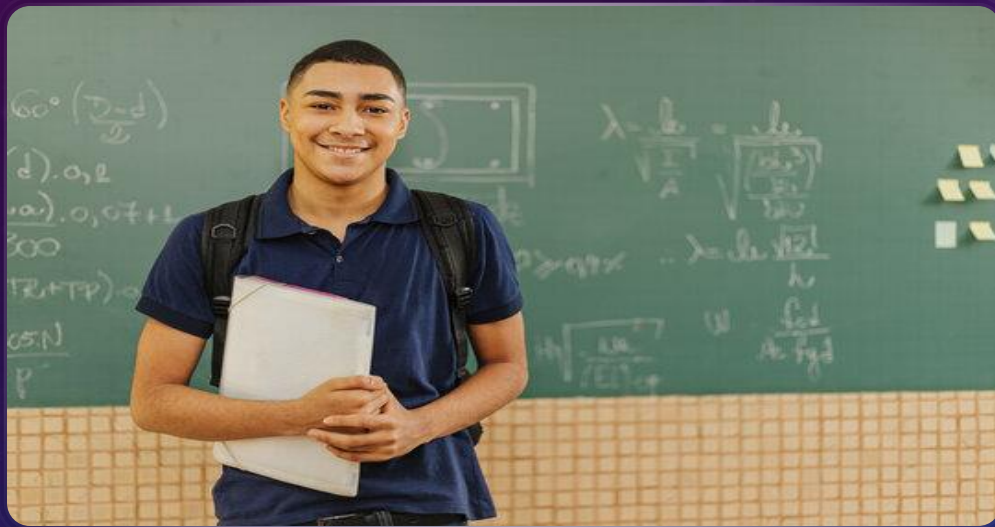
PERSONA 1 S



Kathy - Wants a comprehensive tutor scheduling planner for managing multiple clients.

Kathy is a private tutor working both online and in-person. While she enjoys teaching, managing her growing client base has become increasingly difficult. She often struggles with overbooking and scheduling conflicts, as manually tracking appointments leads to occasional double bookings or missed sessions. With an automated scheduling system, students could book sessions based on her availability, preventing conflicts and last-minute mix-ups. A student profile feature would help her store session notes and track progress efficiently, ensuring personalized lesson plans for each student.

PERSONA 2 S



Jake — Looking for centralized app for managing tutoring sessions and study material

Jake is a 16-year-old high school student juggling multiple tutoring sessions alongside his regular schoolwork and extracurricular activities. He often forgets about scheduled lessons or struggles to find time for rescheduling when conflicts arise. He has a hard time keeping track of assignments and notes from his tutoring sessions, often misplacing important study materials. With automated reminders, he would never miss an appointment, reducing last-minute cancellations and lost study time. A built-in calendar would help him visualize his schedule, ensuring he doesn't double-book tutoring with other commitments. A session tracking feature would allow him to store lesson notes, assignments, and key takeaways in one place, making it easier to review material when studying.

PERSONA 3 S



Debra - Keeping track of child's appointments and progress.

Debra is a busy mother of 3, trying to balance her work schedule while ensuring her 10-year-old daughter stays on top of her tutoring sessions. Debra often finds it challenging to keep track of lesson times, and her daughter's overall progress. In the chaotic life of a parent of multiple children, tutoring schedules sometimes slip through the cracks, leading to missed or forgotten sessions. She also struggles to stay updated on what Emily is working on in her sessions, relying on scattered notes from tutors or brief updates from her daughter. A session log feature would provide insight into Emily's progress, giving Debra access to lesson notes and assignments so she can stay informed and involved in her child's learning. A tutor scheduling app would be a game-changer for Debra, allowing her to keep all of Emily's tutoring information in one place.

MVP V

- Accounts/Firebase Integration
- Tag based Search System
- Schedule/Book Sessions
- Google Integration

TECHNOLOGY M

Frontend

HTML



Flask

Backend



Firebase

FIREBASE REALTIME DATABASE API V

- Used to store user information.
 - Names
 - IDS
 - Role
- Used to store schedule information
 - Start and End Time
 - People involved
 - Subject

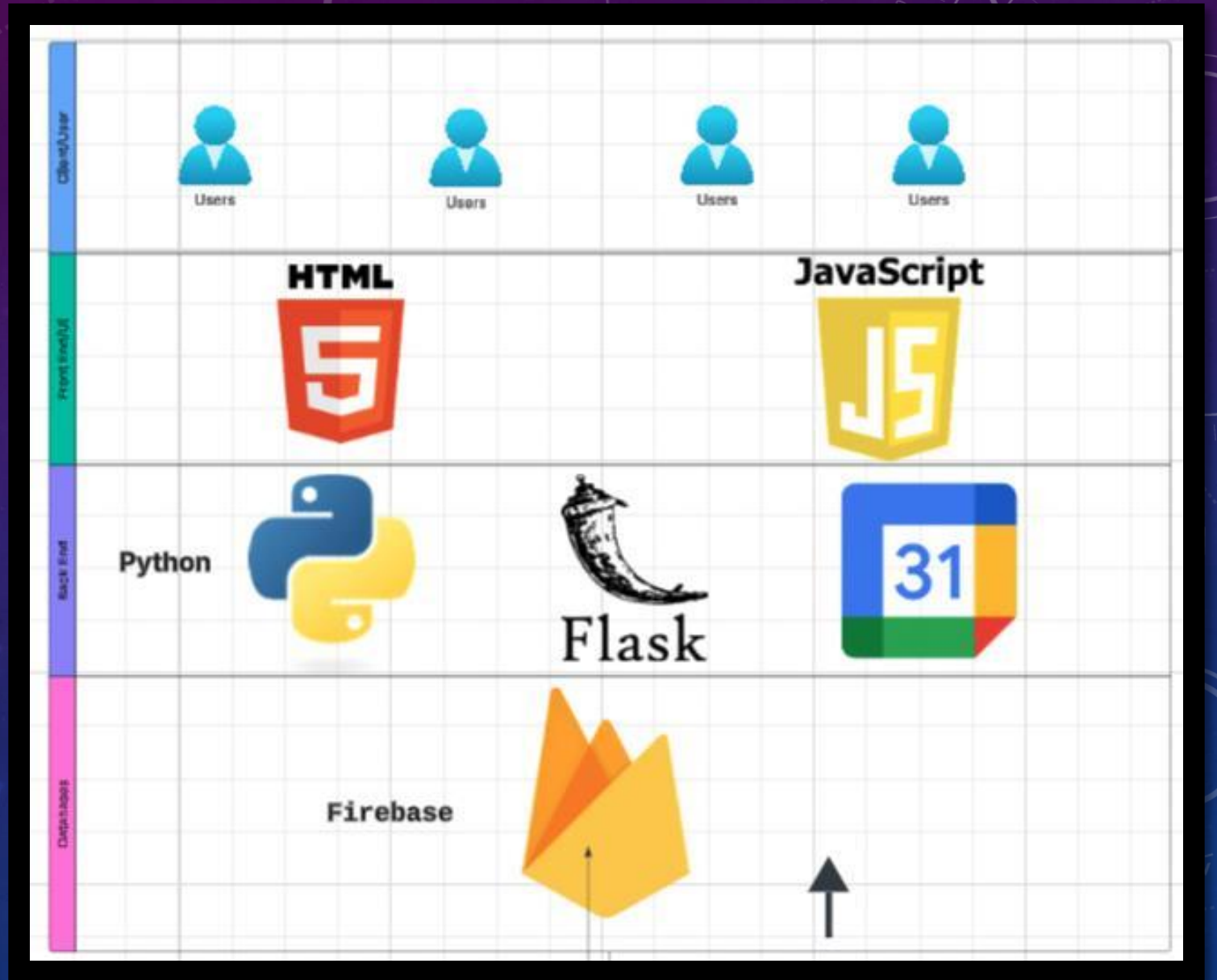


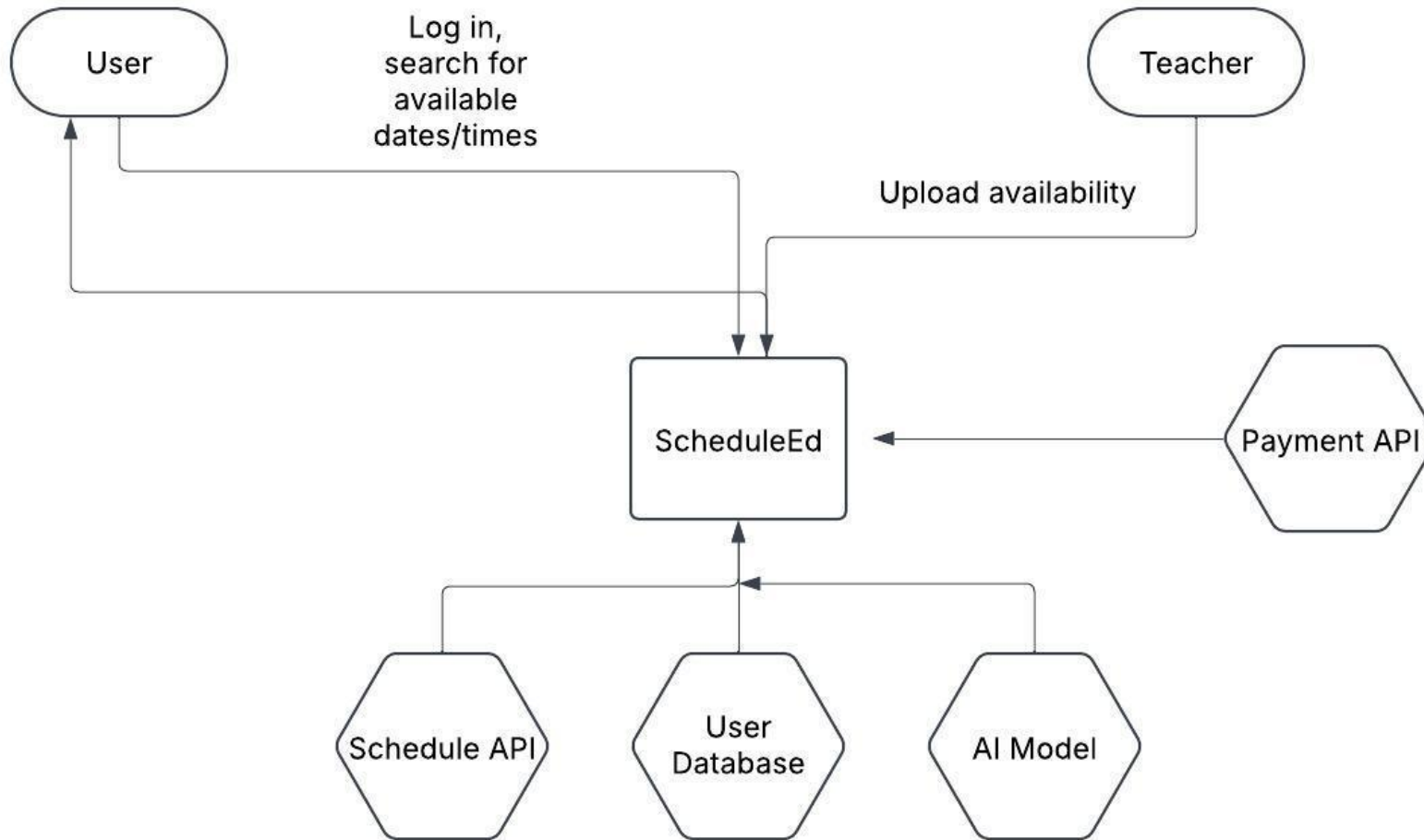
firebase

ALGORITHM M

- Machine Learning Models (Advanced Matching)
 - A decision tree predicts the best tutor for a student based on their learning style, subject, and past interactions.
- Content-Based Filtering
 - If a tutor has a history of working well with middle school students in "Science," they will be recommended to students within that range.

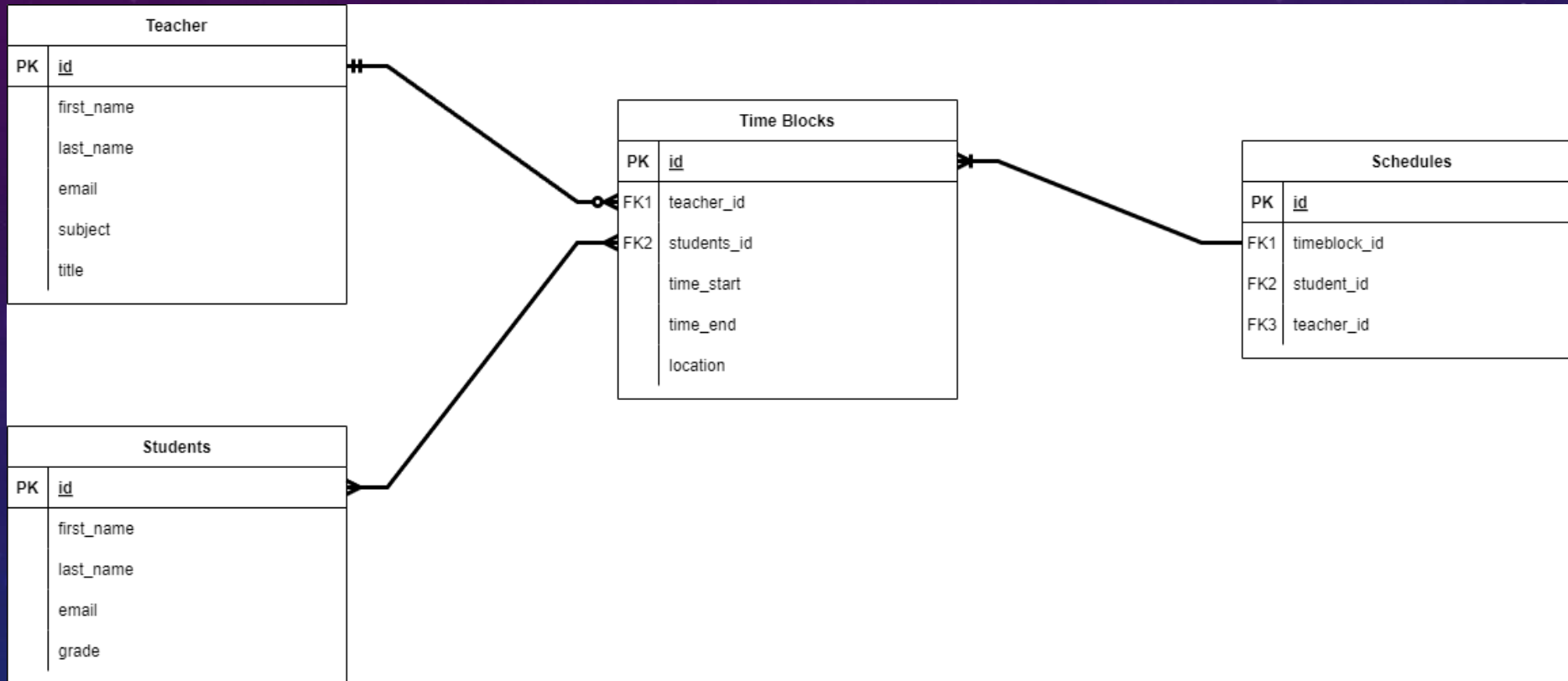
ARCHITECTURE DIAGRAM



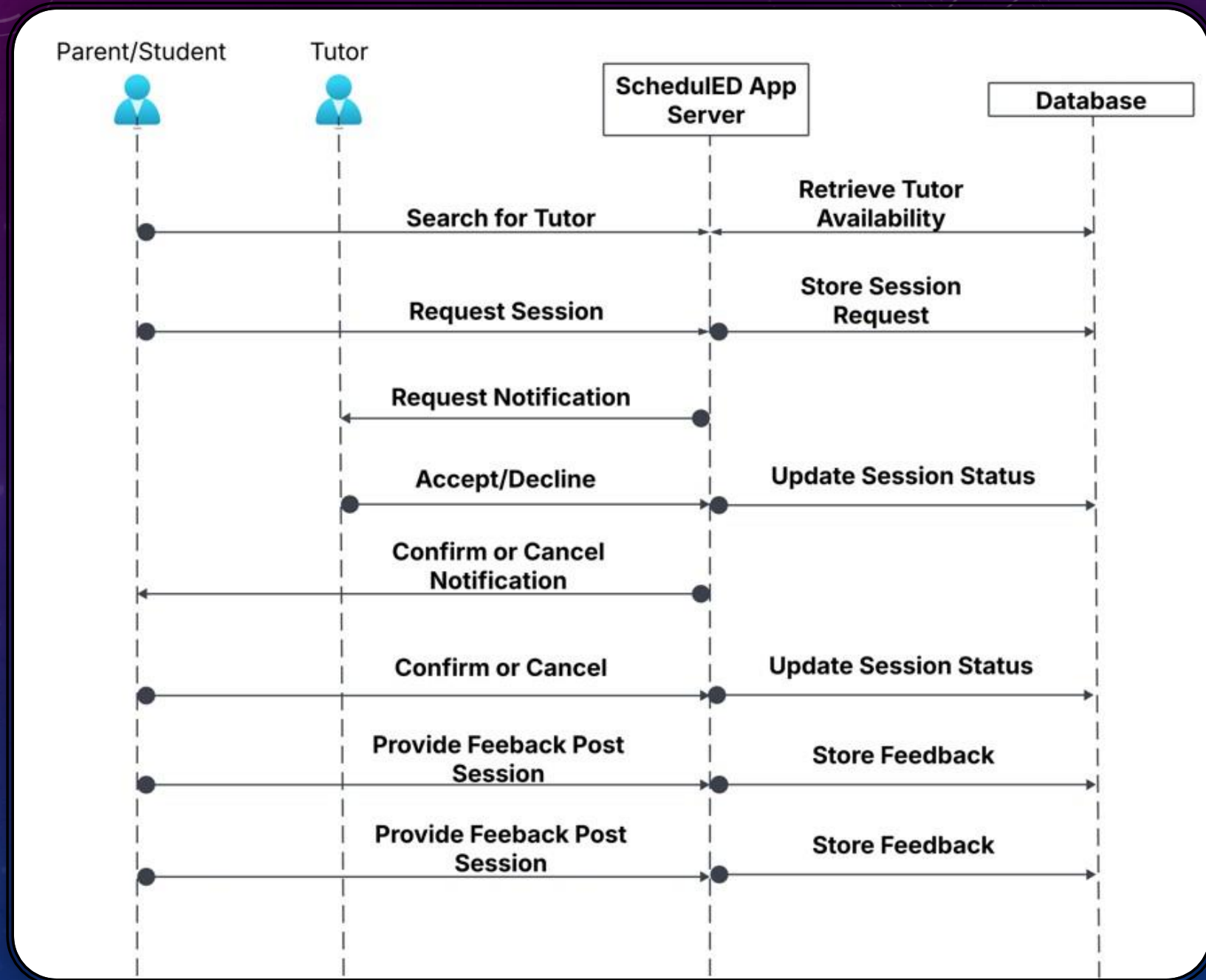


CONTEXT DIAGRAM

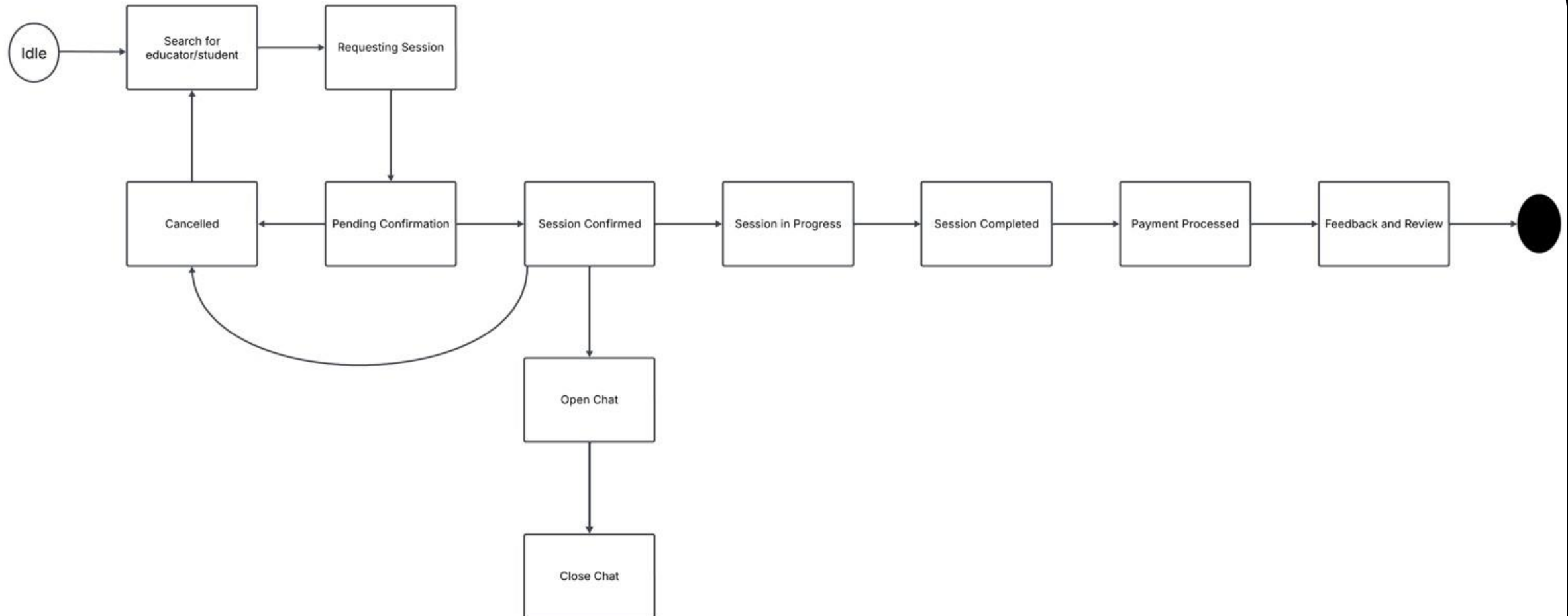
ER DIAGRAM



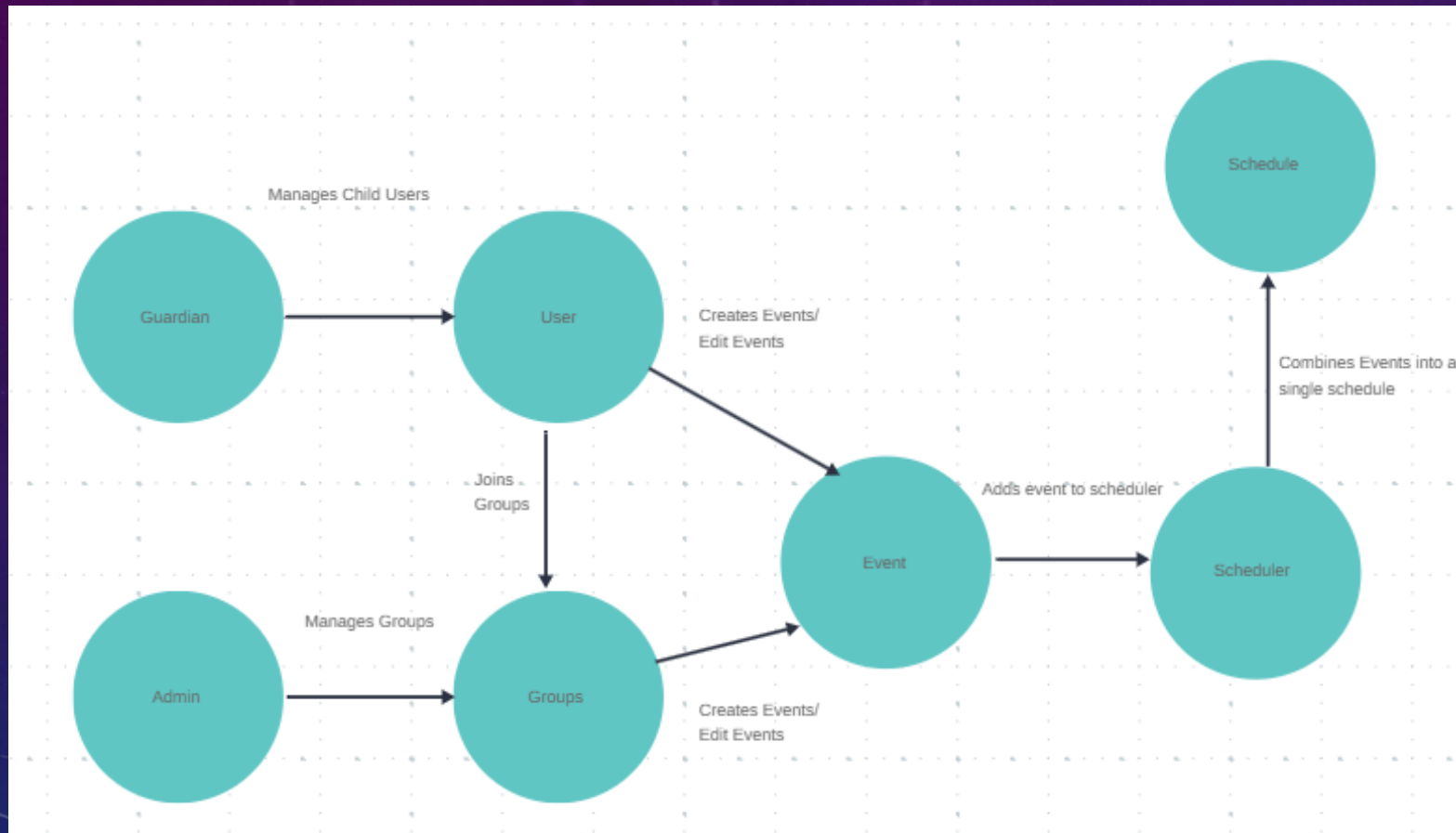
SEQUENCE DIAGRAM

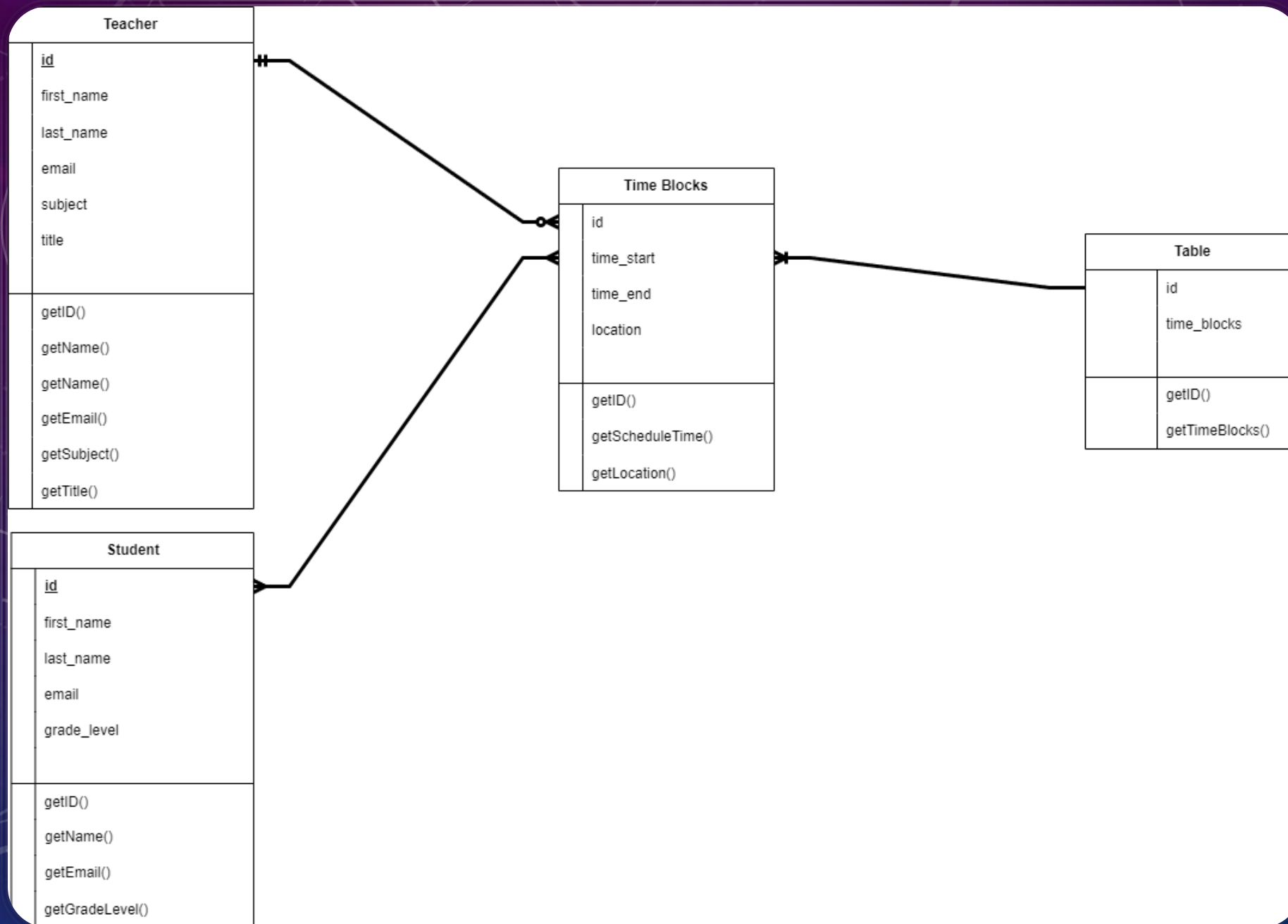


STATE DIAGRAM



CONCEPT DIAGRAM





CLASS DIAGRAM

ID	Executable	US	Acceptance Criteria	Points	Sprint
Task1	Diagrams	As a team, we want to complete our diagrams for visualizing what our project will look like and how it will function	Diagrams are created and approved by the team, clearly showing the project structure and functionality.	3	1
Task2	Product Backlog	As a team, we want to complete our backlog and plan in what sprint we want to complete each feature	Backlog is fully populated with all features, and each feature is assigned to a specific sprint.	2	1
Task3	Frontend and Backend Technologies	As a team, we wanted to agree on the technologies we will use to complete our project.	Team agrees on and documents the frontend and backend technologies to be used for the project.	1	1
Task4	Algorithms	As a team, we wanted to agree on the algorithms we will use to complete our project.	Team agrees on and documents the algorithms to be used for the project.	1	1
US1	Account Creation	Given I am someone who wants to create an account, when I try to create an account using SSO then I should be able to create an account that saves my data.	User can successfully create an account using SSO, and their data is saved in the database.	7	1
US2	User Login	Given I am a user of the application, when I open the application, I should be able to see a username and password field, and then I should be able to use my username and password to login	User can see login fields and successfully log in using their username and password.	7	1
US3	Home Screen	Given I am a user of the application, when I login, Then I should be able to see the home screen.	User is redirected to the home screen after successful login.	5	1

PRODUCT BACKLOG T

US4	Firebase API	Given I am a user with an account, my account data should be stored in a secured database so that there is no risk of data leak.	User data is stored securely in Firebase, and no unauthorized access is possible.	8	2
US5	User Selection	Given that I am a user of the application, When I login I should be able to choose whether I am a parent, student or tutor	User can choose what type of role they are when setting up their profile	10	2
US6	Scheduling API	Given that I am a user of the application, When I select my tutor, I should be able to see available time slots on the calender for that selected tutor.	User can view available time slots for the selected tutor on a calendar.	9	2
US7	Availability Setting	Given that I am a tutor, when I log in to my profile I want to be able to set my availability for tutoring sessions so that then the students can book time slots	Tutor can set their availability, and students can book sessions based on the tutor's availability.	8	2
US8	Student Notification	Given that I am a user, I want to recieve reminders for upcoming tutoring sessions so that I do not forget about them	User receives notifications or reminders for upcoming tutoring sessions.	5	2
US9	Tutor Notification	Given that I am a tutor, I want to receive notifications for tutoring requests so that I can comfirm or decline bookings	Tutor receives notifications for tutoring requests and can confirm or decline them.	5	2

US10	Schedule Deletion	Given that I am a user , I want to reschedule or cancel tutoring sessions so that i can adjust if my plans change	User can reschedule or cancel tutoring sessions through the app.	7	3
US11	Admin Account	Given that I am an admin, I want to have access to all users and session data so that I can manage the platform.	Admin can access and manage all user and session data through the admin panel.	6	3
US12	User Filtering	Given that I am a user, I want to filter my tutors based on subject so that I can choose a tutor who specializes in the content that I need help in	User can filter tutors by subject to find a tutor specializing in the desired content.	9	3
US13	Schedule Setup	Given that I am a user, I want to book multiple tutoring sessions at once so that I can plan ahead for my tutoring sessions.	User can book multiple tutoring sessions in one go.	8	3
US14	Group Session Scheduling	Given that I am a user, I want to join group tutoring sessions so that I can learn in a group setting, which will save me money.	User can join group tutoring sessions and see the cost savings compared to individual sessions.	8	3
US15	File Sharing	Given that I am a tutor, I want to provide learning resources to students so that they can review/practice outside of the tutoring sessions.	Tutor can upload and share learning resources with students, who can access them outside of sessions.	7	3

PRODUCT BACKLOG T

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US1	Account Creation	Given I am someone who wants to create an account, when I try to create an account using SSO then I should be able to create an account that saves my data.	User can successfully create an account using SSO, and their data is saved in the database.	7	1
US2	User Login	Given I am a user of the application, when I open the application, I should be able to see a username and password field, and then I should be able to use my username and password to login	User can see login fields and successfully log in using their username and password.	7	1
US3	Home Screen	Given I am a user of the application, when I login, Then I should be able to see the home screen.	User is redirected to the home screen after successful login.	5	1

SPRINT 1 STORIES T

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US9	Tutor Notification	Given that I am a tutor, I want to receive notifications for tutoring requests so that I can comfirm or decline bookings	Tutor receives notifications for tutoring requests and can confirm or decline them.	5	2

SPRINT 2 BACKLOG T

Test Case	Test Case Name	Step Description	Exception Result	Execution Status
TC_4	Account Info Stored in Database	When signing up enter base account information like full name and roll and have it sort by user ID	The information is stored into the Database under users, users id and it easily readable in admin console.	Passed
TC_5	Account Info Retrive from Database	After signing in can the backend retrive data stored for specific user.	The information like a name is retrived from database and can be printed out.	Passed
TC_6	Frontend values passed to backend	Using frontend webpage, type in information that would be accepted into the backend and backend can use those variables.	Signing up for a new account requires email, password, first and last name, and role. After confirming your information backend accepts it creates new account and stores information to database.	Passed

TEST CASES SPRINT 2 V

ID	Executable	US	Acceptance Criteria	Points	Sprint	Completed (Y/N)
US4	Firebase API	Given I am a user with an account, my account data should be stored in a secured database so that there is no risk of data leak.	User data is stored securely in Firebase, and no unauthorized access is possible.	8	2	Y
US5	User Selection	Given that I am a user of the application, When I login I should be able to choose whether I am a parent, student or tutor	User can choose what type of role they are when setting up their profile	10	2	Y
US6	Scheduling API	Given that I am a user of the application, When I select my tutor, I should be able to see available time slots on the calender for that selected tutor.	User can view available time slots for the selected tutor on a calendar.	9	2	N
US7	Availability Setting	Given that I am a tutor, when I log in to my profile I want to be able to set my availability for tutoring sessions so that then the students can book time slots	Tutor can set their availability, and students can book sessions based on the tutor's availability.	8	2	N
US8	Student Notification	Given that I am a user, I want to recieve reminders for upcoming tutoring sessions so that I do not forget about them	User receives notifications or reminders for upcoming tutoring sessions.	5	2	N
US9	Tutor Notification	Given that I am a tutor, I want to receive notifications for tutoring requests so that I can confirm or decline bookings	Tutor receives notifications for tutoring requests and can confirm or decline them.	5	2	N

SPRINT 2 STORIES COMPLETED AND NOT T

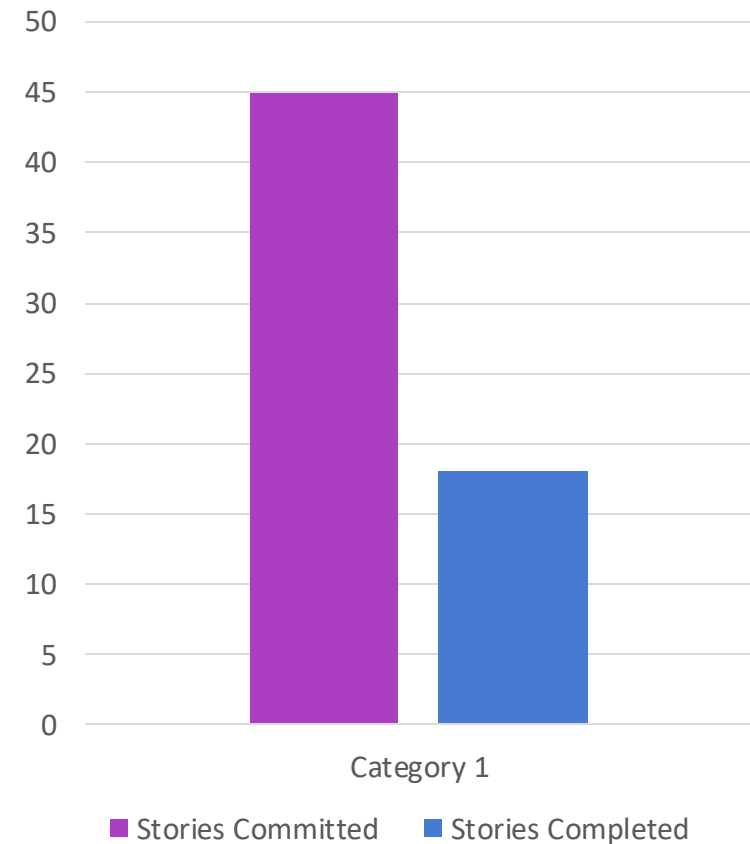
TEAM VELOCITY 18/45 STORY POINTS COMPLETED J

- User data is stored securely in Firebase, and no unauthorized access is possible. Completed 8 Story Points
- User can choose what type of role they are when setting up their profile. Completed 10 Story Points

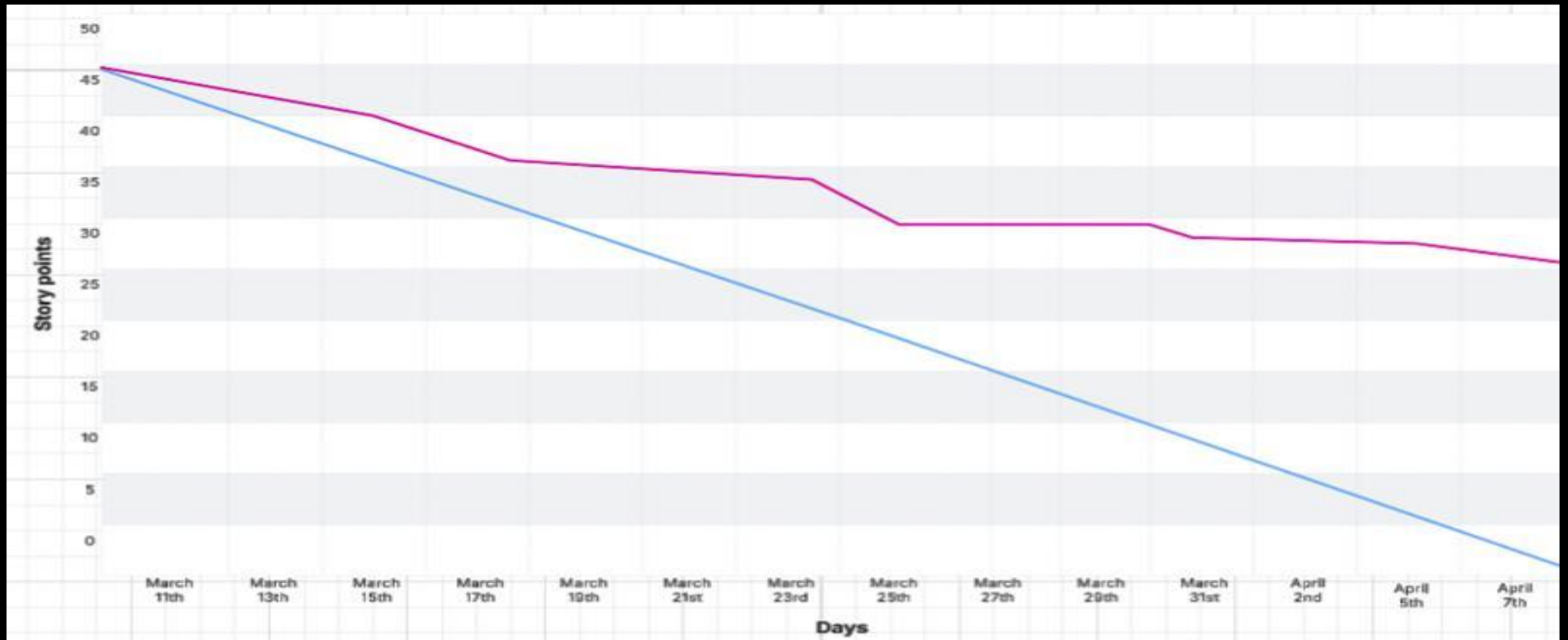
METRICS COMMITTED/COMPLETED RATIO

18 Story points completed of out
45 story points committed = 40%
Completed

Team Velocity



BURNDOWN CHART SPRINT 2 J



What went well +

Work what evenly split for the most part. + 0	Sporadic meetings to help support each other through more challenging tasks. + 0
meetings were more productive + 0	Got a lot of the code to run successfully. + 0
Learned how to use flask to merge front and back end code. + 0	Michael is great at coding. + 0

What can be improved +

Have a lot of working pieces ; need them to flow more. + 0	front-end knowledge for all + 0
time management + 0	more Meetings that we are actually all working on the code and watching others debug the code. Able to see in real-time the application work + 0
Update the Technical Paper + 0	update technical paper + 0
Update the technical paper + 0	Update technical paper + 0

Action Items +

Schedule Meeting Feature show up in user-profiles + 0	Update database to include all schedule information + 0
Sign in with Google Feature + 0	Hooking up all of our web pages. Make a home page + 0
Accepting/Confirming an appointment + 0	Notification Feature + 0
update technical paper + 0	update technical paper + 0

RETROSPECTIVE S

SPRINT 3 PLANNING

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US11	Admin Account	Given that I am an admin, I want to have access to all users and session data so that I can manage the platform.	Admin can access and manage all user and session data through the admin panel.	6	3
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US15	File Sharing	Given that I am a tutor, I want to provide learning resources to students so that they can review/practice outside of the tutoring sessions.	Tutor can upload and share learning resources with students, who can access them outside of sessions.	7	3

- In Addition to adding the Schedule API, availability setting, and notifications

PROJECT DEMO M

Login

Username (Email):

Password:

Login

No account? Sign up now!

Sign in with Google

PROJECT DEMO M

Create Your Account

PROJECT DEMO M

Schedule a Session

Student Name:

Subject:

Select Tutor:

Start Time:

End Time:

Schedule Session

GROUP WIKI LINK

<https://github.com/htmhw/2025SA-Team1/wiki>