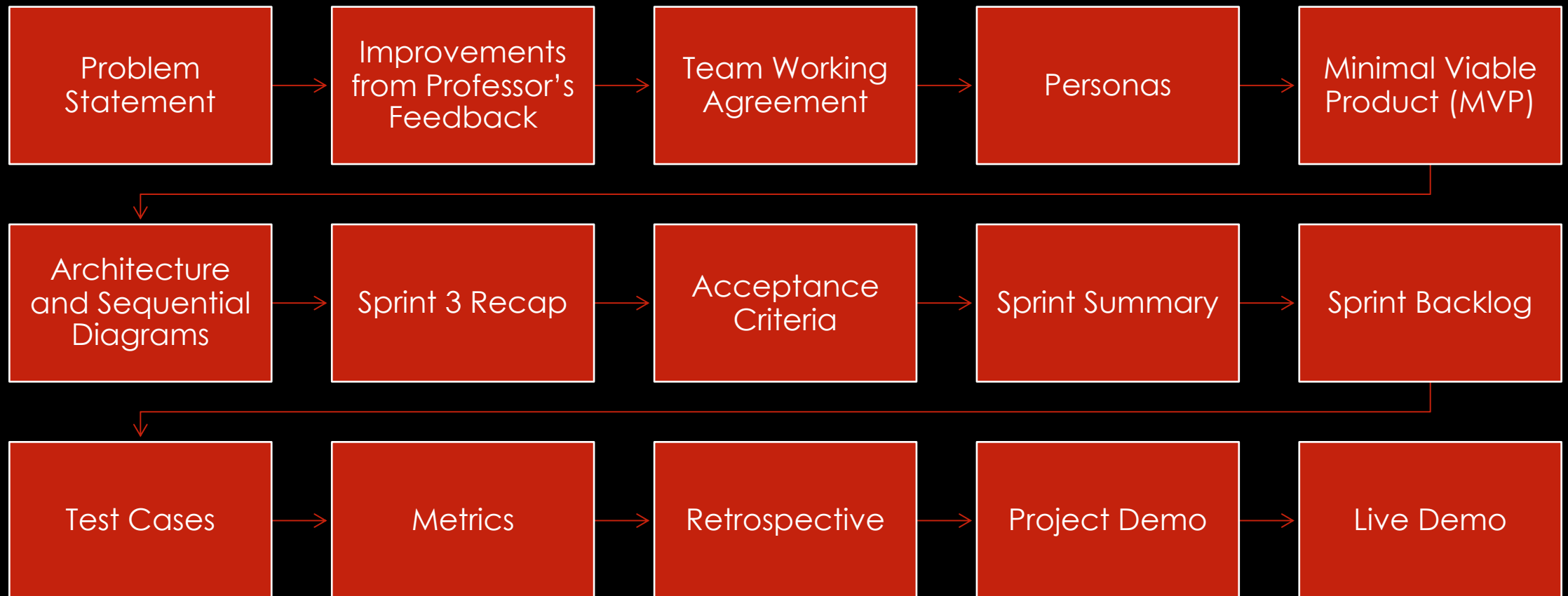




SIMPLY ONLINE

Simple way to connect

AGENDA



TEAM MEMBERS



Ajay Kumar
Full Stack Developer



Amarendra Reddy
Developer



Pruthvi Raj Reddy
Database
Administrator



Mounik
Developer



Sreeja Reddy
Quality Analyst



Ravi Teja Reddy
Developer

PROJECT DESCRIPTION

Simply Online is a web application that aims to simplify the process of online classes. This application allows lecturers to create virtual rooms and share the room id with their students for seamless connectivity. Using webRTC technology, simply online allows group video-sharing features and screen-sharing capabilities. This application allows lecturers to easily take attendance with just a click of a button. This platform automatically marks attendance, eliminating the need for manual tracking. Overall, simply online offers a comprehensive and user-friendly solution for educators and students to enhance their online learning experience

IMPROVEMENT FROM PROFESSOR'S FEEDBACK



We incorporated the professor's feedback and make improvements to the presentation.



By adding action items in retrospective and Average velocity chart in Metrics



Added the single slide of MVP listing all features and product backlog



API slide is added in the presentation

TEAM WORKING AGREEMENT

Participation:

All the team members are expected to involve in project discussions and attend the meetings promptly. Absence during multiple meetings will affect the team's performance and efficiency.

The team member can discuss beforehand with the team leader if he/she is going to miss the meeting or make it up for it before the next meeting is scheduled.

Communication:

The team will communicate with each other using WhatsApp group and meetings will be scheduled on Zoom.

Jira software will be used to track the assigned tasks. For any dependency on another task, mention it in the task comments.

Task management, bugs, sprint planning, and meeting minutes will be tracked in Jira.

To share the final deliverables, Google docs will be used where all the team members can edit the document.

Work Division:

The entire project work should be divided into equal parts, and equal responsibilities should be given to all the team members.

Each team member should complete their division of work before the deadline. If they are unable to complete the work on time, that hinders the performance of the entire team. If in case a team member is facing trouble and issues at some point, they can share it with others so that they can help each other and complete the work before the deadline.

Meetings:

All the team members will meet on zoom virtually every Tuesday and Friday. All the team members must be present, as attendance is mandatory unless there is an exceptional case.

The team leader would be responsible for sending meeting details and conducting the meeting. A meeting track or meeting minutes report would be listed after every meeting to keep track of the project and its progress.

Every team member is expected to come up with ideas, participate in the discussion, and give an update on their progress for their part of the work.

TEAM MEMBERS

1. AJAY KUMAR
2. AMARENDAR
3. RAVI TEJA
4. SREEJA
5. PRUTHVI RAJ
6. MOUNIK

PERSONA

Name: Professor James

Age: 45

Occupation: University Professor

Profile:

James is a tenured professor in the Computer Science department at a large university. He teaches both undergraduate and graduate-level courses and conducts research in his field. Due to the COVID-19 pandemic, his classes have been moved online, and he uses various platforms to deliver lectures, holds office hours, and communicate with his students. He lives with his spouse and two children, who are also attending school virtually.

Goals and Motivations:

- Deliver high-quality lectures and course material to his students
Engage his students and create a dynamic and interactive virtual classroom environment.
- Ensure that his students are keeping up with the coursework and meeting their learning objectives.
- Provide effective feedback and support to his students.



PERSONA

Name: Sarah

Age: 24

Occupation: College student

Profile:

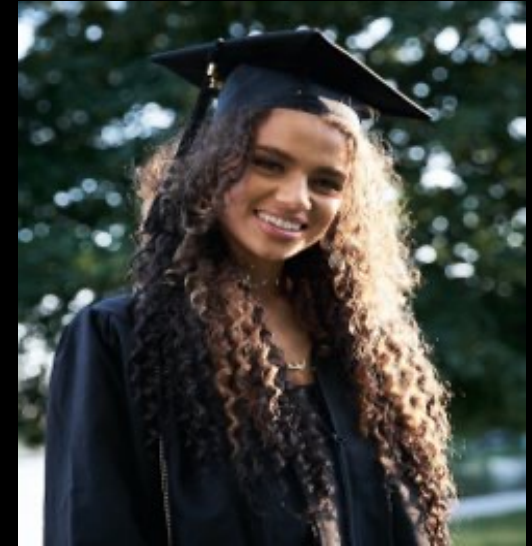
Sarah is a full-time student pursuing a degree in psychology. Due to the COVID-19 pandemic, her classes have been moved online, and she uses Zoom to attend lectures, participate in group discussions, and communicate with her professors and classmates.

She lives in a small apartment with roommates and shares a room with one of them.

She has a busy schedule and often has to balance her coursework with a part-time job and other responsibilities.

Goals and Motivations:

- Attend all her classes and be an active participant in class discussions
Stay organized and manage her time effectively to meet assignment deadlines.
- Have a reliable and user-friendly platform for attending virtual classes. Connect with her professors and classmates, and build a community within her course



PERSONA

Name: Ishika

Age: 27

Occupation: Elementary school teacher

Profile:

Ishika is a dedicated elementary school teacher who loves working with children. She has been teaching for three years and is always looking for ways to improve her classroom management and student engagement. Ishika is originally from India but moved to the US with her family when she was a child. She is fluent in English and Hindi and enjoys cooking traditional Indian dishes in her free time

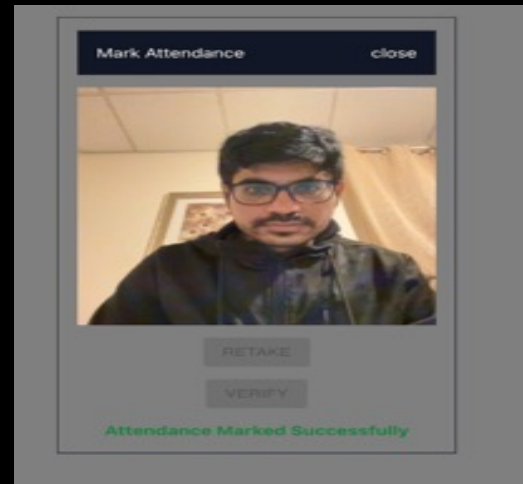
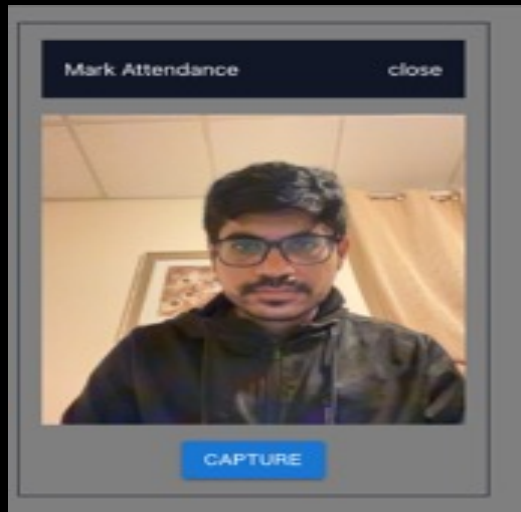
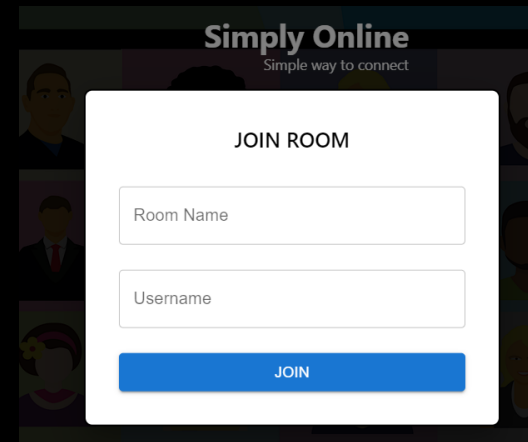
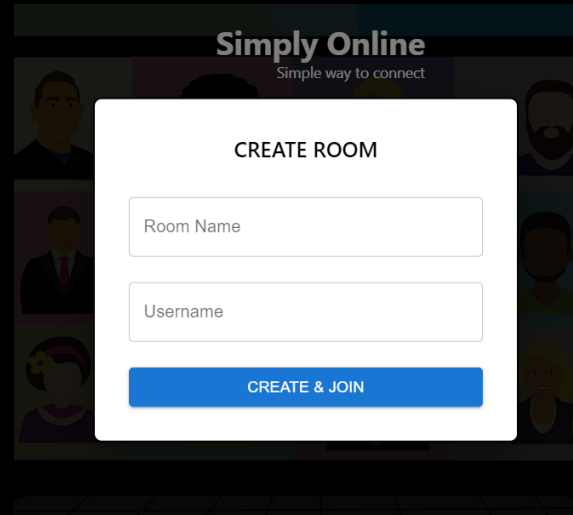
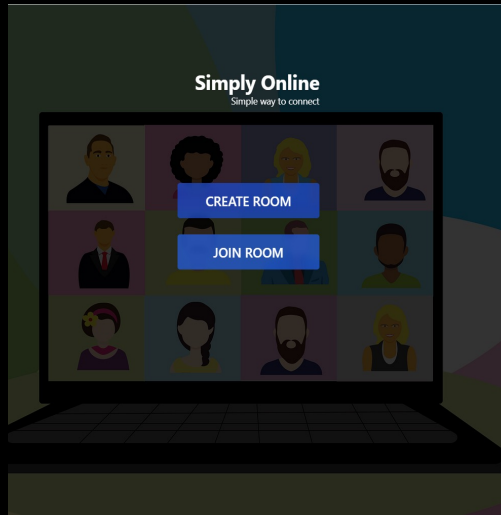
Goals and Motivations:

- Ishika is a dedicated elementary school teacher who loves working with children. She has been teaching for three years and is always looking for ways to improve her classroom management and student engagement. Ishika is originally from India but moved to the US with her family when she was a child. She is fluent in English and Hindi and enjoys cooking traditional Indian dishes in her free time
- Ishika's main goal is to create a safe and engaging learning environment for her students. She wants to be able to take attendance quickly and efficiently so she can spend more time teaching and less time on administrative tasks. Sarah is also motivated by the opportunity to track student attendance and identify patterns that might indicate a need for additional support.





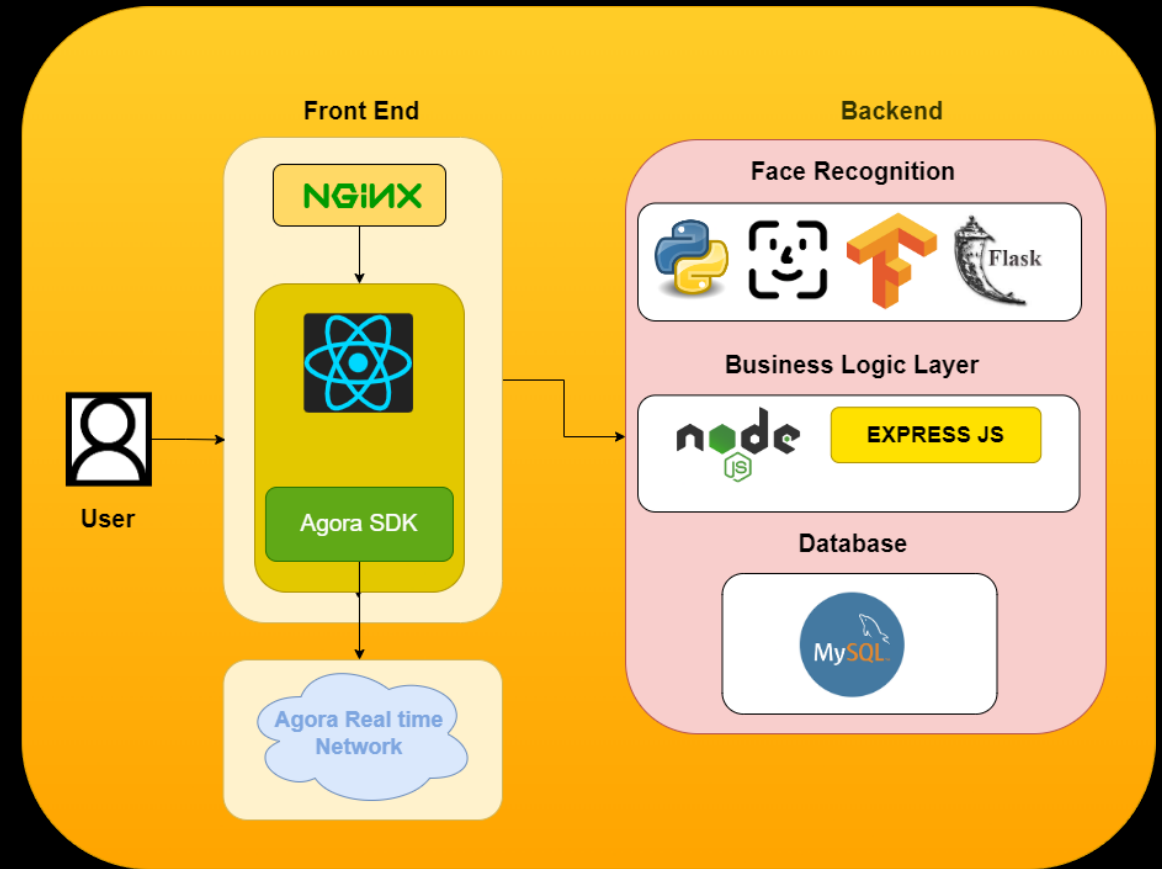
MINIMAL VIABLE PRODUCT



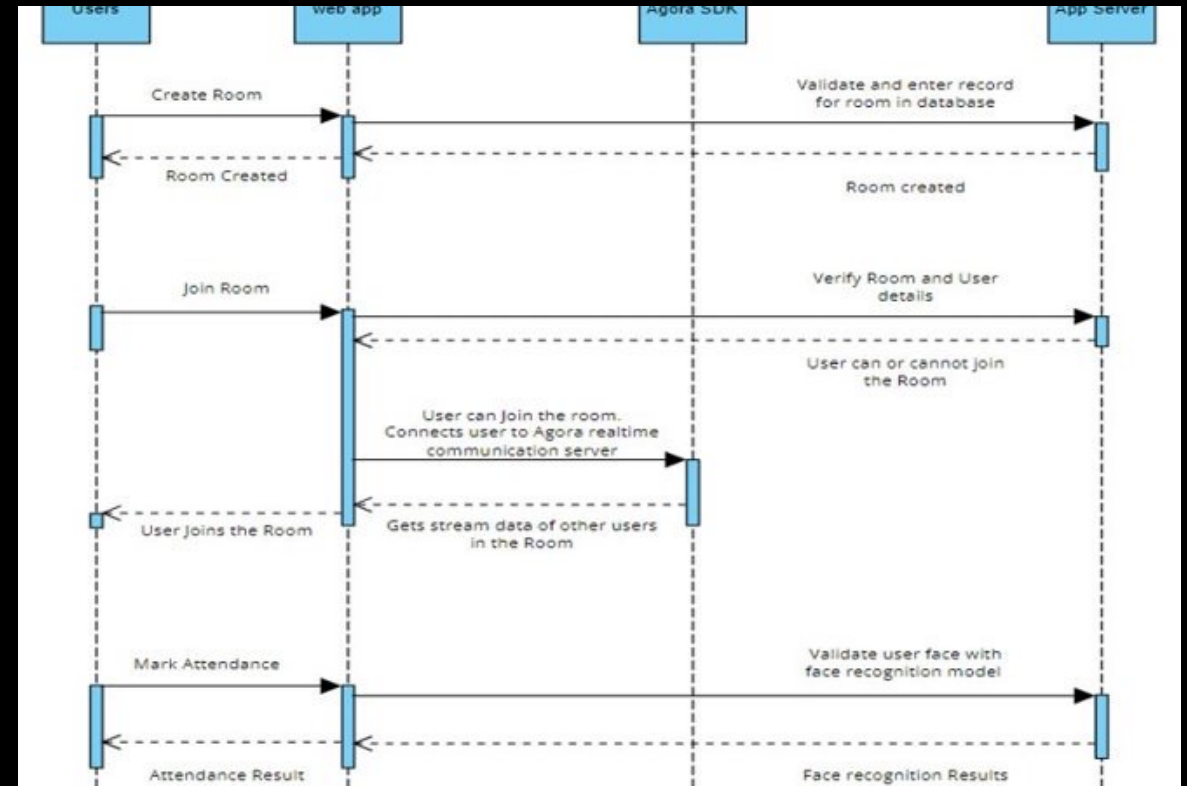
TECHNOLOGIES



ARCHITECTURE DIAGRAM



SEQUENCE DIAGRAM



SPRINT-3 RECAP



UX CHANGES FOR BETTER
INTERACTIVITY.



FACE RECOGNITION
IMPLEMENTATION USING DEEP FACE.

Acceptance criteria

Scenario	Summary	Criteria
Implement UI to mark attendance	As a user Given Host is on the home page. Mark attendance button is enabled on the homepage.	User Experience: The host can see the mark attendance button
Create tables and stored procedures to save and retrieve data	As a user Given Host can store the data. When Host clicks on the Mark attendance button, it will create a new table with appropriate fields to store the data. Then it will call stored procedures to insert or retrieve data stored from the table.	User Experience: The host can store data and retrieve it.
Test Facial Recognition Model	As a user Given a set of images of the team. When the user clicks on the verify option, the facial recognition model is tested on the set of images. Then Model should be able to accurately identify the people already in the database and mark the attendance	User Experience: The user can easily verify attendance.

Acceptance criteria

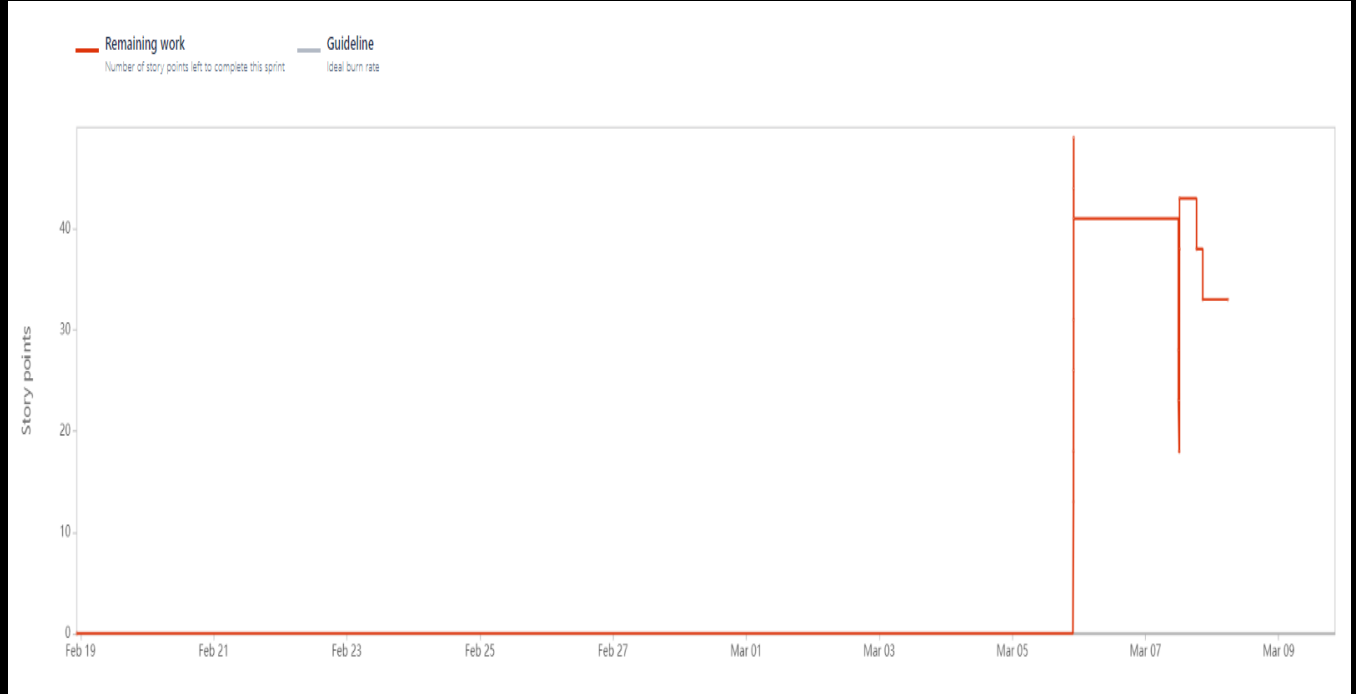
Scenario	Summary	Criteria
Enable attendance marking feature for room owners	As a user Given The attendance marking feature is enabled. When the Host clicked on the mark attendance button Then Users can get verify option to mark the attendance	User Experience: The user can easily mark the attendance by verifying his picture
Test of whole application functionality	As a user Given Host can create a room. Then users can join the room When the host clicks on the mark attendance Then users will get verify option to verify their images and mark their attendance to the host	User Experience: The host can easily mark the attendance

Sprint -1 Summary

STORY ID	USER STORY	STORY POINTS
SIM-6	Discussion on framework selection	8
SIM-7	Create a React project	13
SIM-8	Research on WEBRTC	8
SIM-9	Research on Face Recognition Implementation	13

Sprint -2 Summary

STORY ID	USER STORY	STORY POINTS
SIM-10	Create webapp and connect to signaling server to generate ICE Candidates	8
SIM-12	Create UX & UI for user to create and join rooms	8
SIM-13	Research on SFU server for group calling feature	8
SIM -11	Create a connection between two peers and enable video and audio calling	20
SIM-24	Database analysis and Development	5
SIM-26	Connect business layer and database layer	5

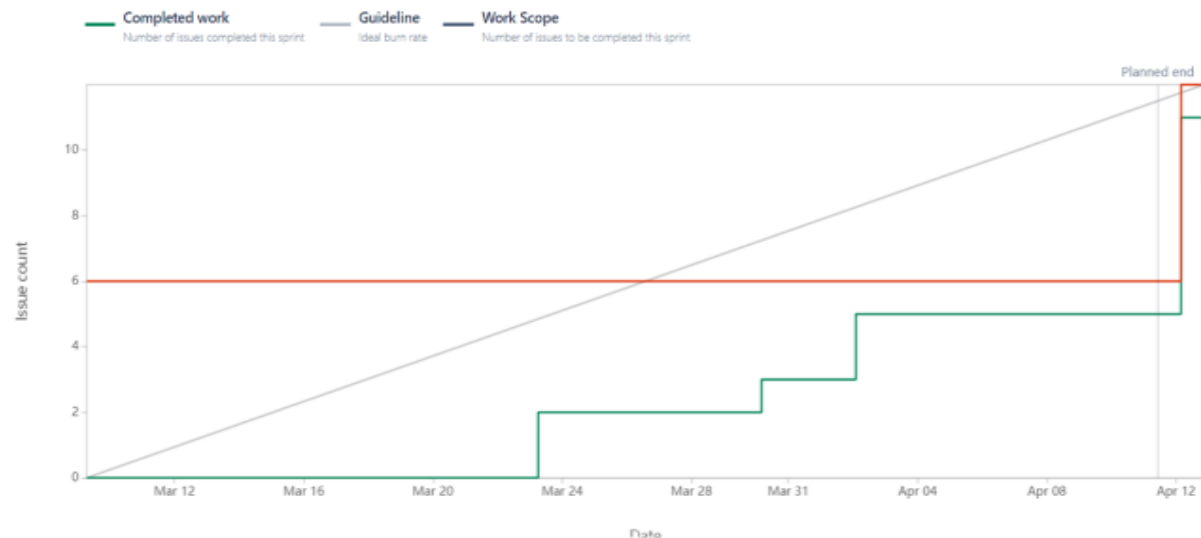


Sprint -3 Summary

ID	STORY	USER STORY	STORY POINTS
SIM-33		Face Recognition Implementation using deep face	40
SIM-34		Research on Deep face	4
SIM-35		Create a web API using flask to connect to Face recognition	8
SIM -36		Implement face recognition on UI	14
SIM-31		UX changes for better Interactivity	4
SIM-32		Implement video conference UI using agora server	16

Burndown chart

Date - 10 March 2023 - 12 April 2023



Sprint-4 Backlog

STORY ID	USER STORY	STORY POINTS
SIM-20	Enable attendance marking feature to room owners	20
SIM-30	Test of whole application functionality	13
SIM-17	Implement UI to mark attendance	13
SIM -28	Technical paper and documentation	20
SIM-29	Deployment Procedure	13
SIM-22	Test whole application and implementation of auto attendance system	20
SIM-21	Enable screen sharing feature	20

Test Cases

Unit to test	Scenario	Expected Result
Create Room	Create room	Room should be created and user should be redirected to Room page
Join Room	Join Existing Room with users already joined	User should be joined into the room and see other users in the room
Mic	Mic enable and disable	Mic should be enabled or disabled when user clicks on mic icon
Video	Video enable and disable	Video should be enabled or disabled when user clicks on video icon
Mark attendance Button	Enable to room owner	Visible on the screen to room owner
Face Recognition	Test face recognition model	Verify model with test images from UI

Completed tasks and not Completed tasks

STORY ID	USER STORY	STORY POINTS	Status
SIM-20	Enable attendance marking feature to room owners	20	Done
SIM-30	Test of whole application functionality	13	Done
SIM-17	Implement UI to mark attendance	13	Done
SIM -28	Technical paper and documentation	20	Done
SIM-29	Deployment Procedure	13	Done
SIM-22	Test whole application and implementation of auto attendance system	20	Done
SIM-21	Enable screen sharing feature	20	In Progress

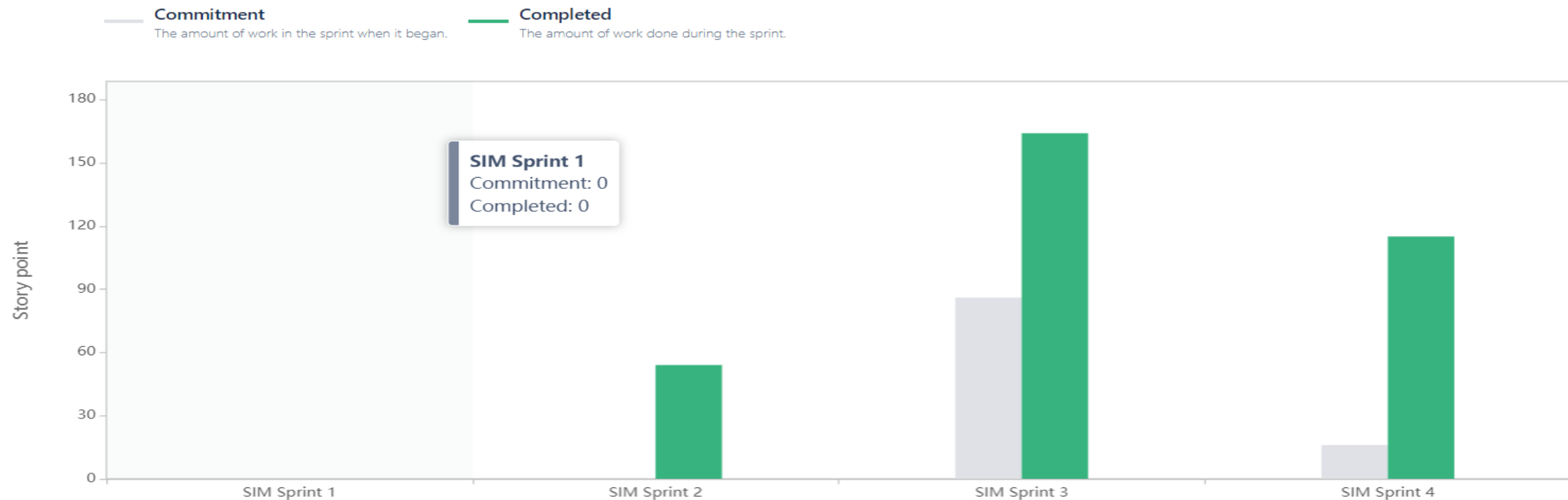


METRICS

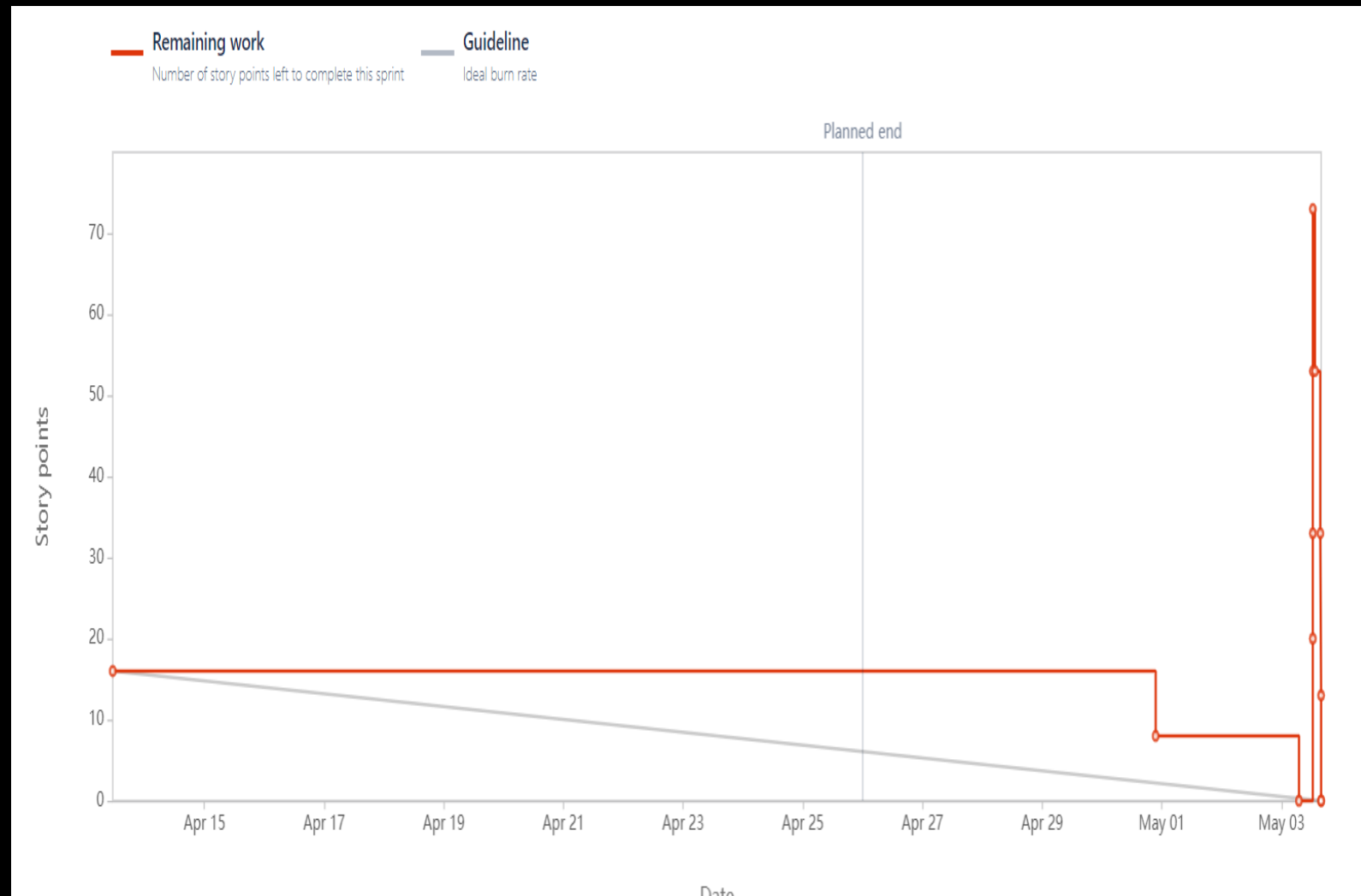
TEAM VELOCITY REPORT

Velocity report

[How to read this report](#)



Sprint Burndown Chart



COMMITTED AND COMPLETED RATIO



Sprint	Commitment	Completed
SIM Sprint 1	0	0
SIM Sprint 2	0	54
SIM Sprint 3	86	164
SIM Sprint 4	16	115

Retrospective

What went well:

- Completion of work on time
- Successfully resolved any issues or bugs that arose during the sprint

What didn't go well:

- Team communication or collaboration was not effective

Action Steps:

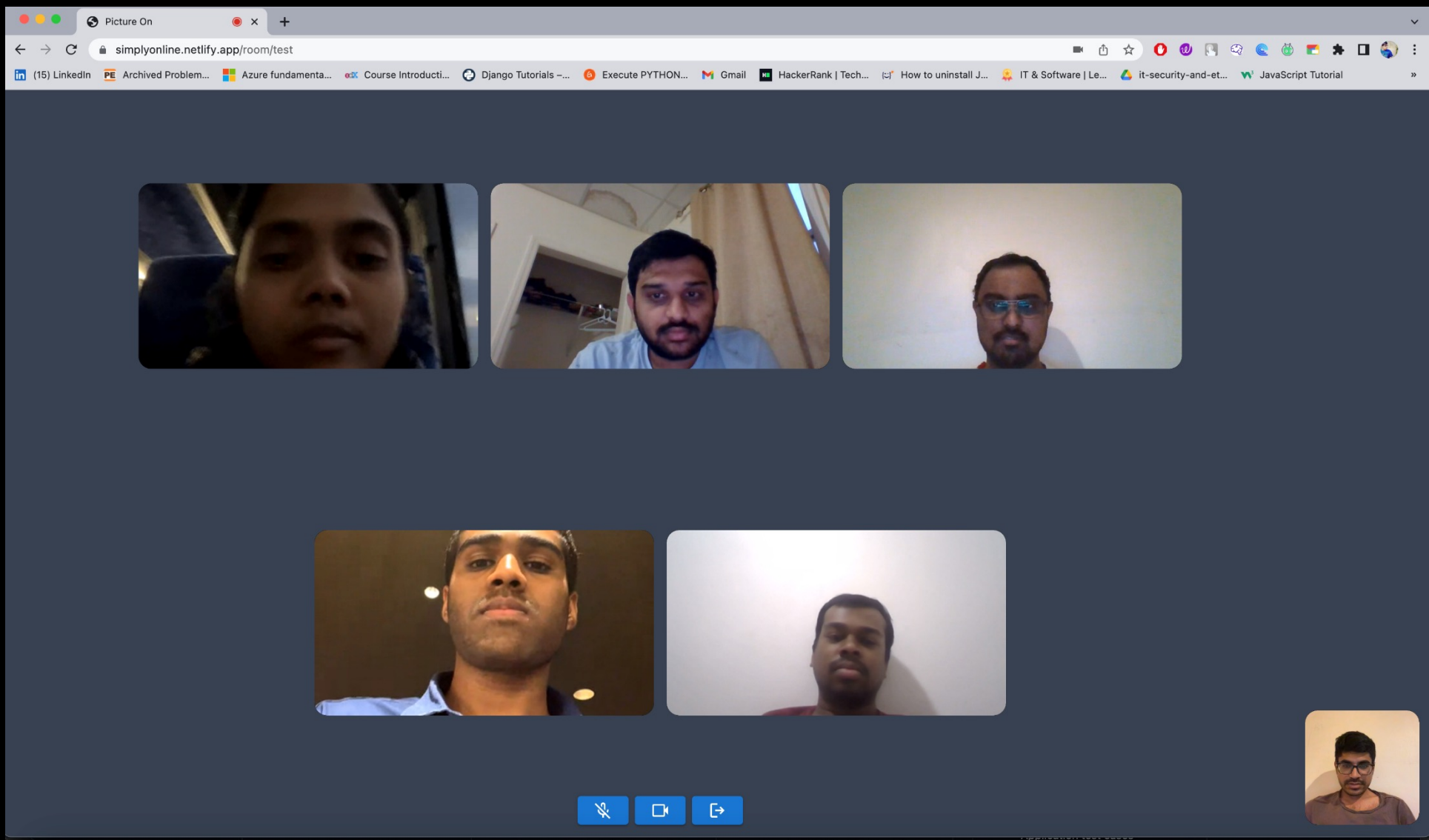
- Improving communication among team members by implementing regular meetings
- Regularly reviewing progress towards project goals and making sure that work is on track

Sprint - 5

STORY ID	USER STORY	STORY POINTS
SIM-39	Mark Attendance button Production Deployment	40
SIM-38	User Authentication and User Authorization	20
SIM-40	Test live application with many users	20

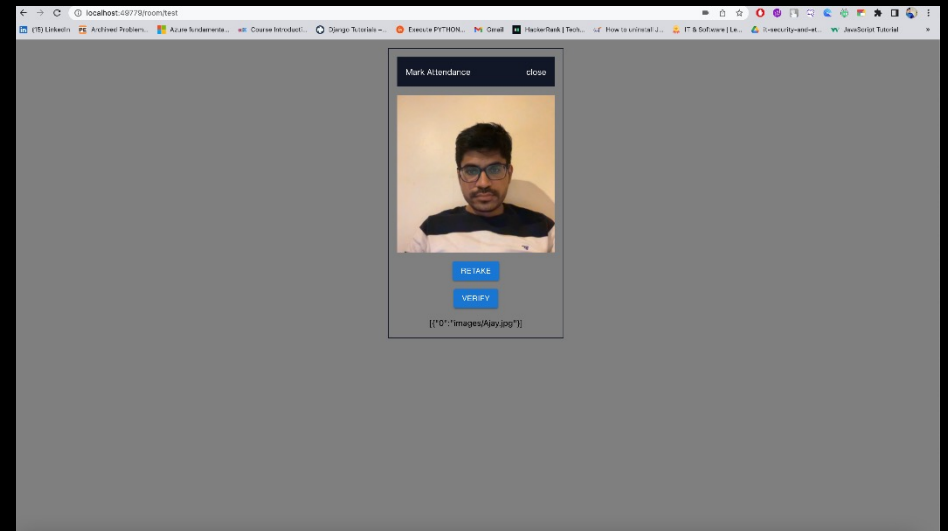
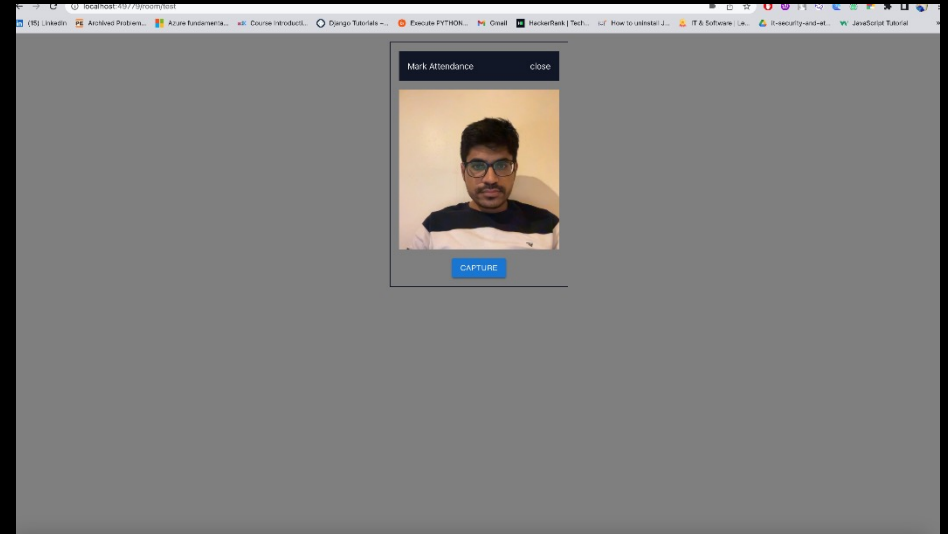


GROUP CALL



Mark Attendance/verify

- This screen allows user to capture the photo and verify that it is the same user or not



API'S

1. createService

This API endpoint creates a new service as specified by the end-user. This is a POST request. This is sent with the default "Content-Type" header of "application/x-www-form-urlencoded".

Request type: POST

Input body type: JSON Object

Output type: JSON Object

Sample request: <http://localhost:3001/createRoom>

Sample input:

```
{
  "room_name": "testing",
  "user_name": "ajay",
}
```

Sample output:

```
[
  [
    {
      "message": "Room created successfully."
    }
  ],
  {
    "fieldCount": 0,
    "affectedRows": 0,
    "insertId": 0,
    "info": "",
    "serverStatus": 34,
    "warningStatus": 0
  }
]
```

Request type: POST

Input body type: JSON Object

Output type: JSON Object

Sample request: <http://localhost:3001/joinRoom>

Sample input:

```
{
  "room_name": "testing11",
}
```

**Sample output*

```
[
  [
    {
      "room_id": 100019,
      "owner_name": "ajay",
      "room_name": "testing11",
      "room_description": "",
      "start_time": "2023-05-03T19:27:16.000Z",
      "end_time": "2023-05-04T19:27:16.000Z",
      "max_capacity": 100,
      "current_capacity": 0,
      "room_password": "",
      "is_locked": 0,
      "is_public": 1,
      "room_type": "",
      "is_valid": 1
    }
  ],
  {
    "fieldCount": 0,
    "affectedRows": 0,
    "insertId": 0,
    "info": "",
    "serverStatus": 34,
    "warningStatus": 0
  }
]
```

Request type: POST

Input body type: JSON Object

Output type: JSON Object

API'S

Sample request: <http://localhost:3001/startAttendance>

Sample input:

```
{
  "owner_name": "ajay",
  "room_name": "testing11",
}
```

*Sample output

```
[
  [
    {
      "id": 100044,
      "owner_name": "ajay",
      "room_name": "testing11",
      "created": "2023-05-03T20:11:56.000Z"
    }
  ],
  {
    "fieldCount": 0,
    "affectedRows": 0,
    "insertId": 0,
    "info": "",
    "serverStatus": 2,
    "warningStatus": 0
  }
]
```

Request type: POST

Input body type: JSON Object

Output type: JSON Object

Sample request: <http://localhost:5001/verify>

Sample input:

```
{
  {
    "data_url": "data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAQABAAQ/4gHYSUNDX1BST0ZJTEUAAQAAAAHIAAAQAAQwAABtnRyUkdCIFhZWiAH4AABAAEAAA"
  }
}
```

*Sample output

```
[
  "{\\\"identity\\\":{\\\"0\\\":\\\"images\\Ajay.jpg\\\"},\\\"source_x\\\":{\\\"0\\\":113},\\\"source_y\\\":{\\\"0\\\":109},\\\"source_w\\\":{\\\"0\\\":135},\\\"source_h\\":135}"
]
```


API'S

1. getServices

This API endpoint retrieves the list of services that the end-user can avail.

Request type: GET

Output type: JSON Array

Sample request: http://localhost:3001/attendanceLogs?attendance_id=100046

sample output:

```
[
  [
    {
      "attendance_log_id": 10000010,
      "attendance_id": 100046,
      "user_name": "ajay",
      "room_name": "testing22"
    }
  ],
  {
    "fieldCount": 0,
    "affectedRows": 0,
    "insertId": 0,
    "info": "",
    "serverStatus": 34,
    "warningStatus": 0
  }
]
```

WIKI PAGE

<https://github.com/htmhw/SimplyOnline/wiki>

Home

htmw1991 implemented this page in docusaurus. Contributions

SimplyOnline - Pace University Capstone Project

Project Description:

- The "SimplyOnline" web application aims to simplify the process of online classes.
- This application enables lecturers to connect with students online and simplifies the attendance tracking using facial recognition technology.
- Attendance can be automatically marked when the lecturer chooses to do so, which is particularly useful in large classes.

[View Project Description as PDF](#) | [Download Project Description as More Document](#)

Team Members:



Ajay Kumar Chikkar
(ac41262@pace.edu)



Amarendra Reddy Naimburi
(an42561n@pace.edu)



Pruthvi Raj Reddy Mintri
(pm13343@pace.edu)



Ravi Teja Reddy Seelam
(rs58778n@pace.edu)



Sreeja Reddy Dashireddy
(sd4785n@pace.edu)



Moumita Varshini
(mv42846n@pace.edu)

Project Design

Front end of simply online is implemented using React. WebRTC technology is used to add the video communication capabilities. Backend is implemented using Node.js and database system via used is MySQL.

Languages and Tools



CS691 - Spring 2023 Deliverables

1. View Deliverable 1 Presentation Slides as PDF
2. Download Deliverable 1 Presentation Slides as PowerPoint

Sprint Burndown Charts and Completed Tasks

1. Sprint 1 Burndown Chart and Completed Tasks

Edit View page

Pages (1)

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SimplyOnline - Pace University
Capstone Project
Project Description
Team Members
Project Design
Languages and Tools
CS691 - Spring 2023
Deliverables
Sprint Burndown Charts and
Completed Tasks
Retrospective
Team Working Agreement

1. Add a custom sidebar

Clone this site locally

[https://github.com/htmhw/SimplyOnline](#)

DEMO LINK

- https://www.youtube.com/watch?v=iP-q_YyqgfU&ab_channel=AmarendraReddyNamburi

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CS691 - Spring 2023 Deliverables

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1. Add a custom video

Clone this site locally

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THANK YOU