המכללה האקדמית להנדסה בראודה בכרמיאל

Video Conferencing Application With Speech Transcription

Capstone Project Phase II
Project Number 24-1-D-19

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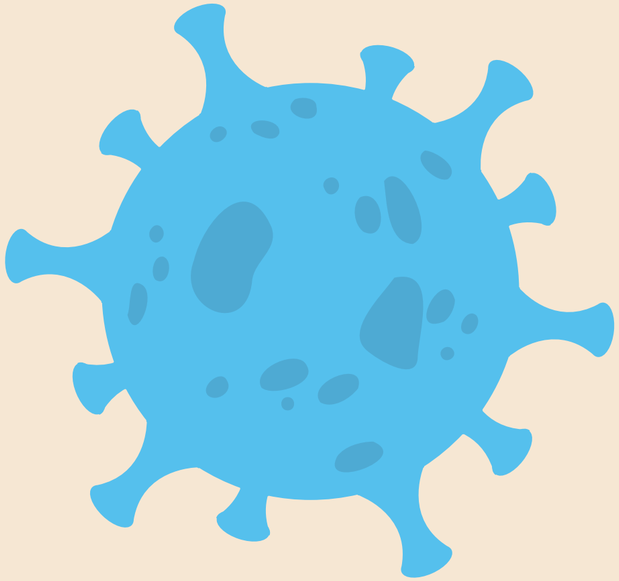
Introduction

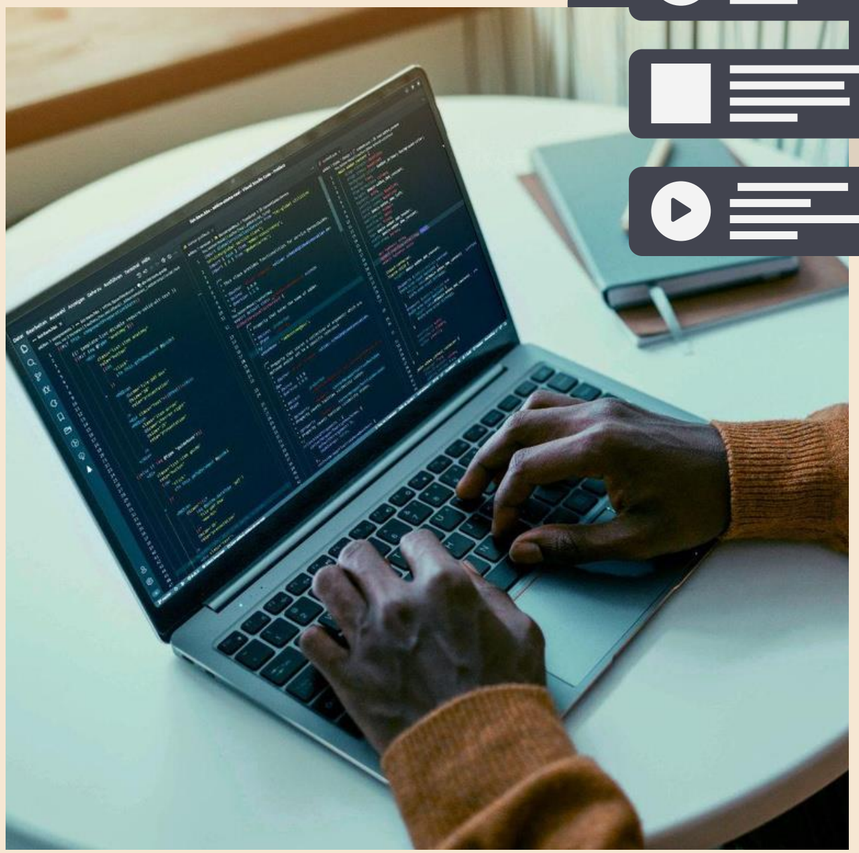
After COVID-19 remote conference became more and more popular, but untilll now all the applications dont have the ability to save the transcript of the conference .



Project Goal

Why we need such system?

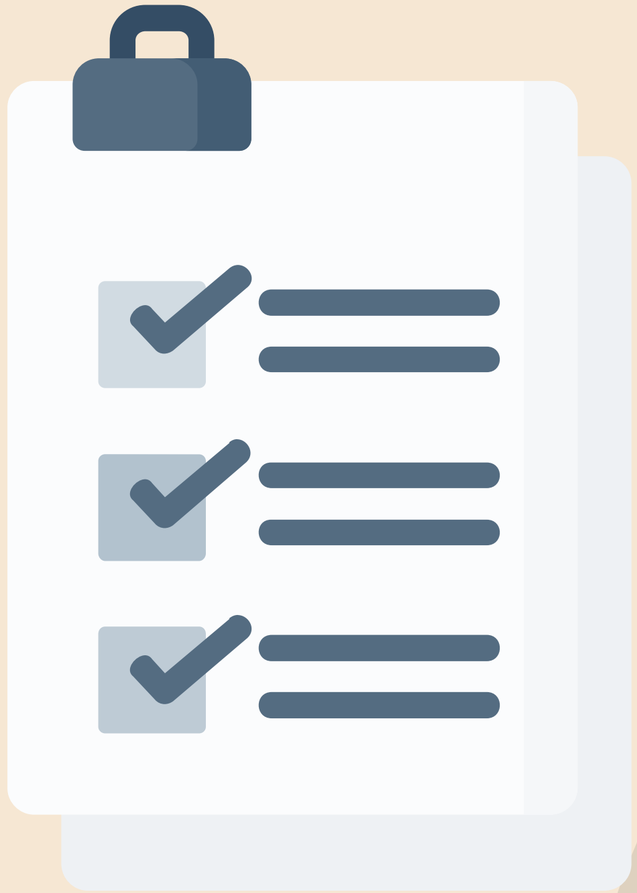
- Indvidulas with hearing problems
- language barriers.
- Study and learning.
- Note-taking



System requirements

Functional

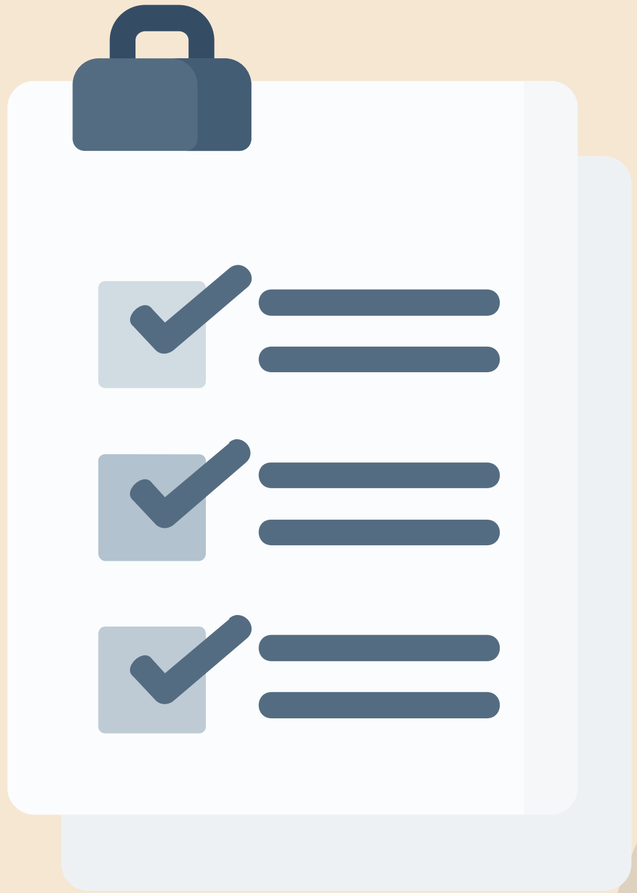
- video calls.
- meeting controls.
- speech-to-text integration.
- data privacy.
- viewing transcriptions.

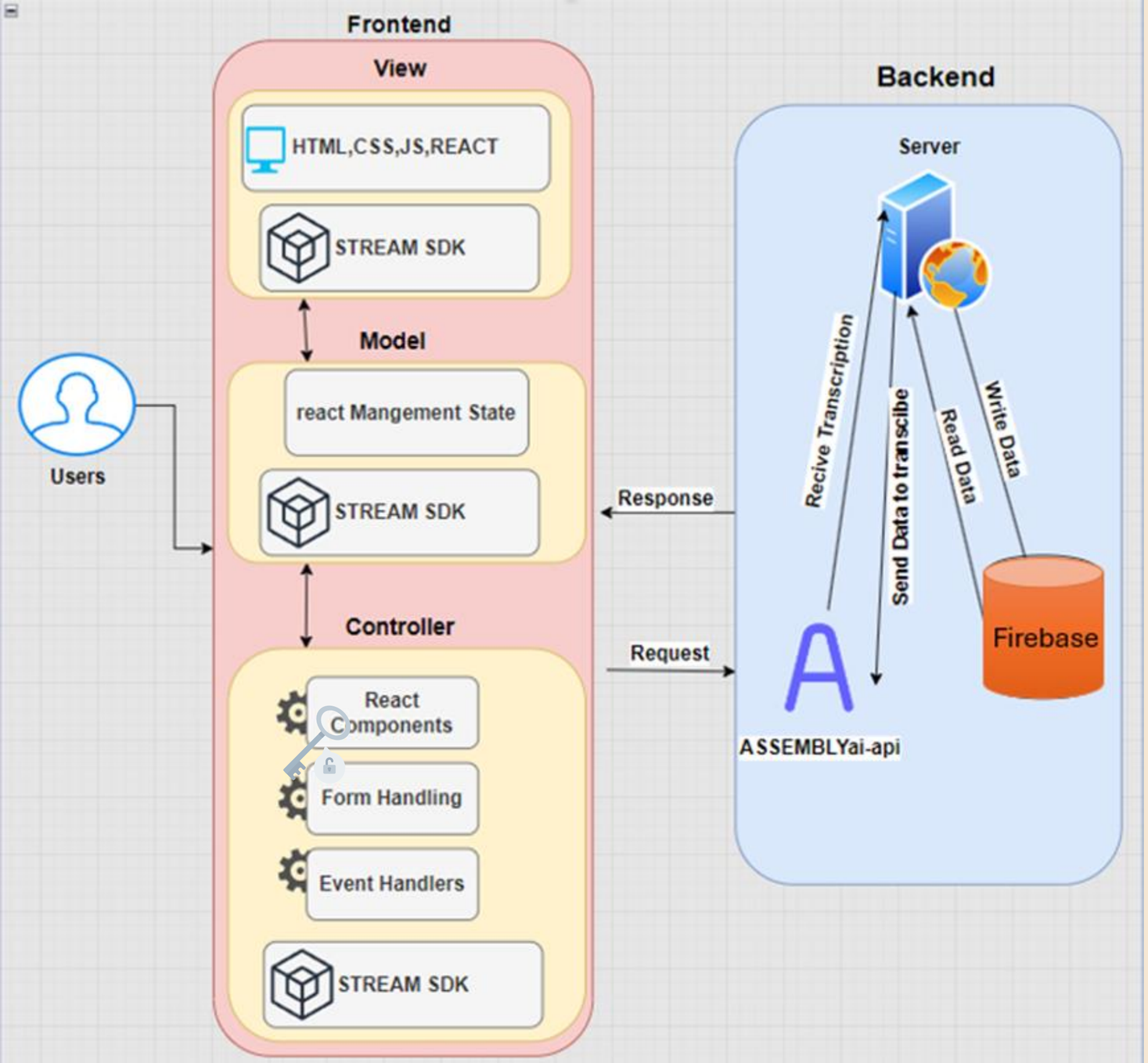


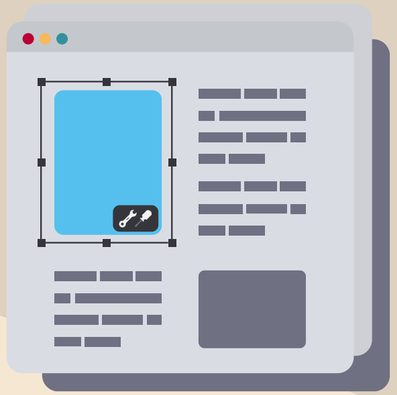
System requirements

Non-Functional

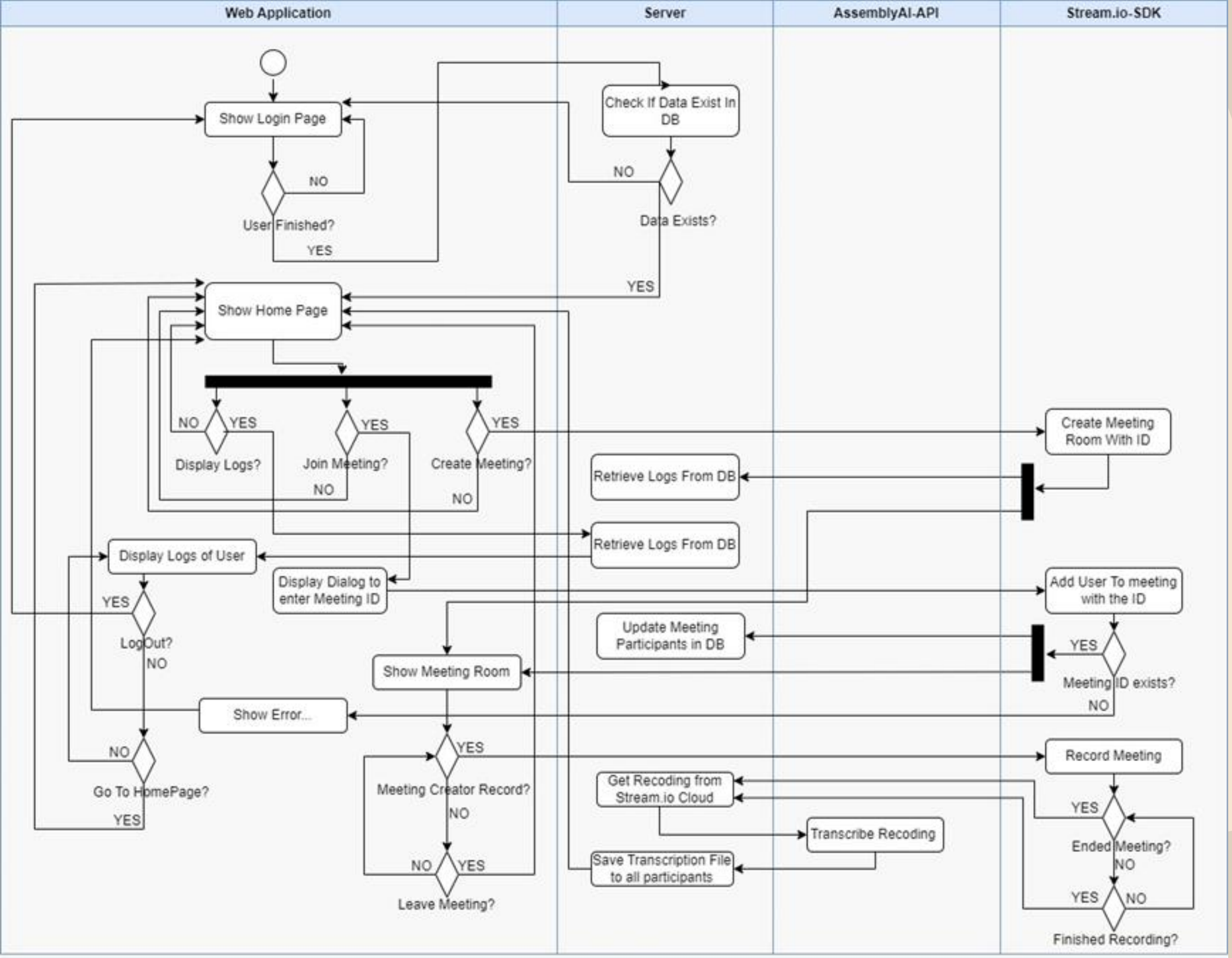
- Low latency and responsivness.
- scalability.
- Device Compatibility .
- User-Friendly Interface.
- Maintainability.

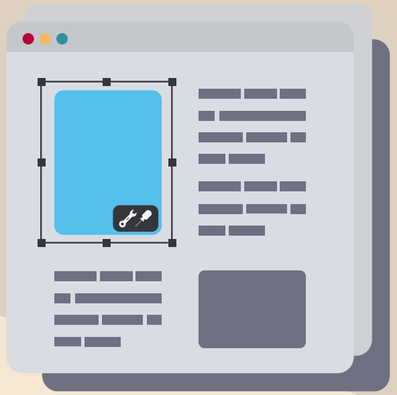




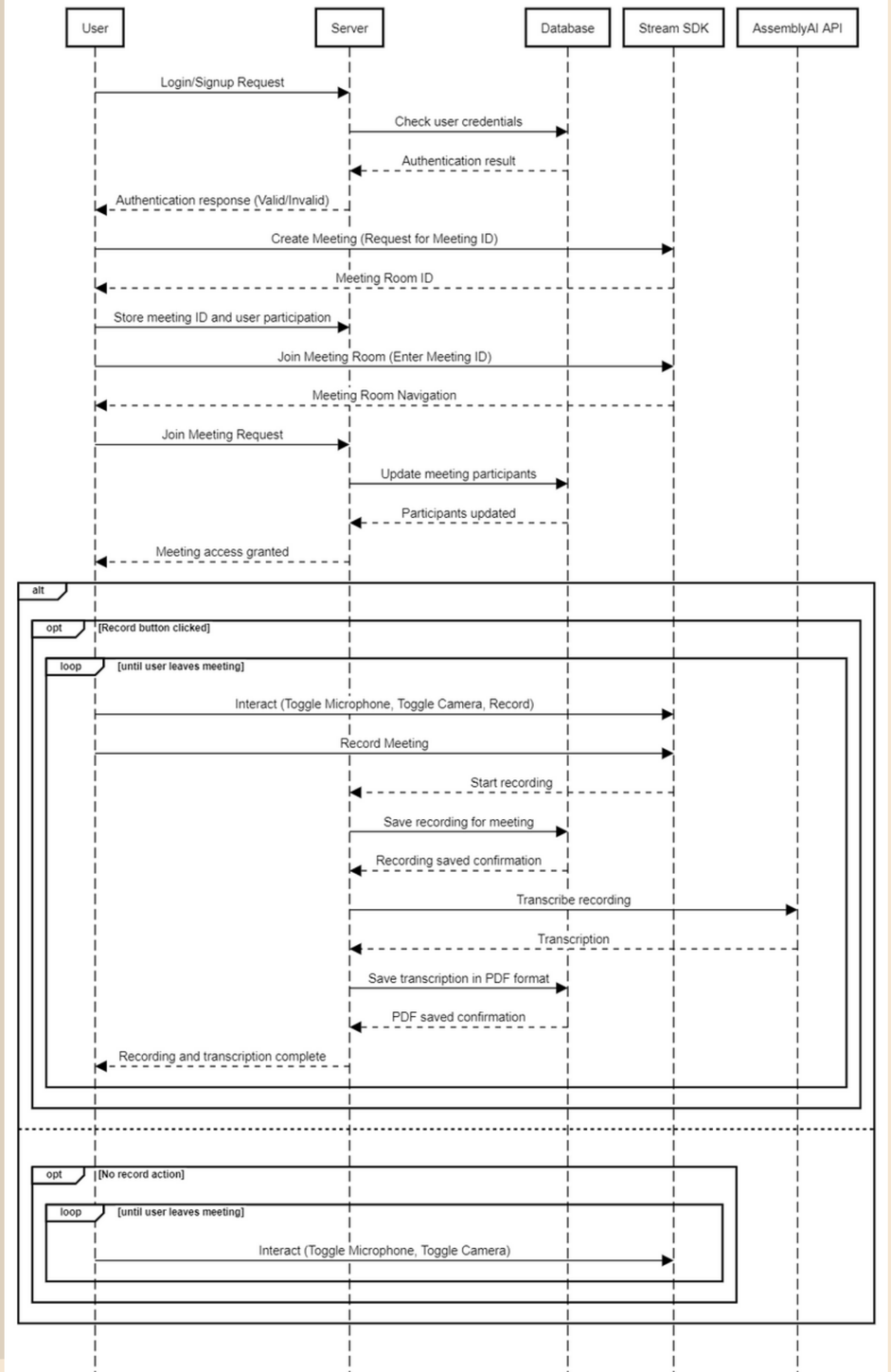


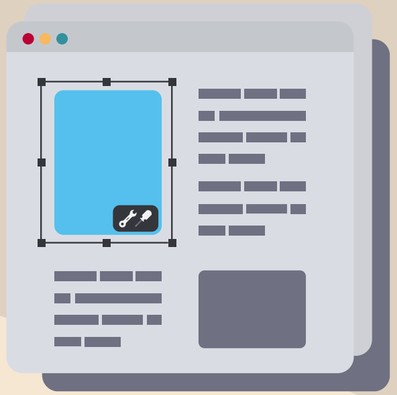
Solution Description - Architecture





Activity Diagram





Sequence Diagram

Success Criteria and Achievements

Criterion	achivement
video calls	create and join meetings
Transcription integration	transcription files
user controls inside meeting	full control
data privacy	user data encrypted

Now, lets see real meeting and check the transcription file generated by the system

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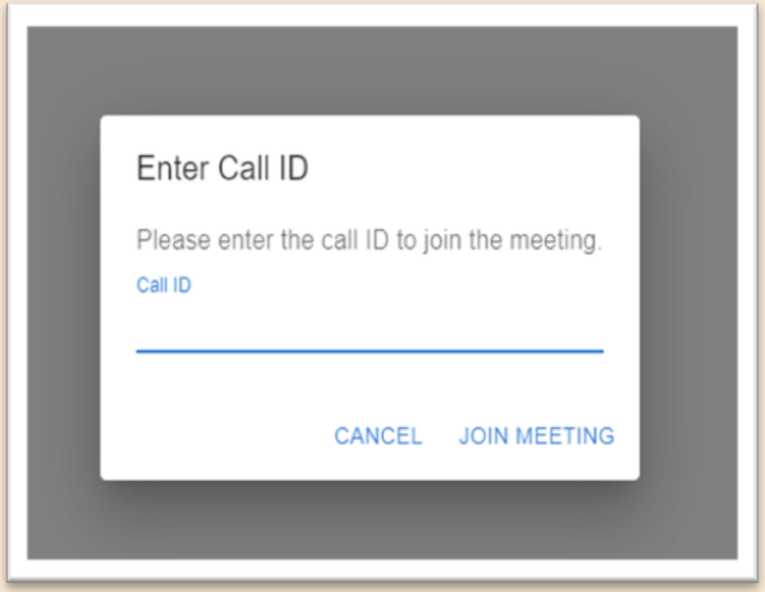
Challenges we faced

- Accuracy of Transcriptions.
- Sensitive data.
- Gateway Timeout Configuration.

Testing

Test	Tested Function	Expected Result	result
1	Page load	First page load<2s	lodaing time~400ms
2	Join meeting process.	A pop-up should appear asking for the meeting ID.	

Dimensions: iPhone SE ▾ 375 x 667 91% ▾ No throttling ▾

RM VIDEO CONFERENCE

Moaed Hamze

Software Engineer Department

Ronen Zelber

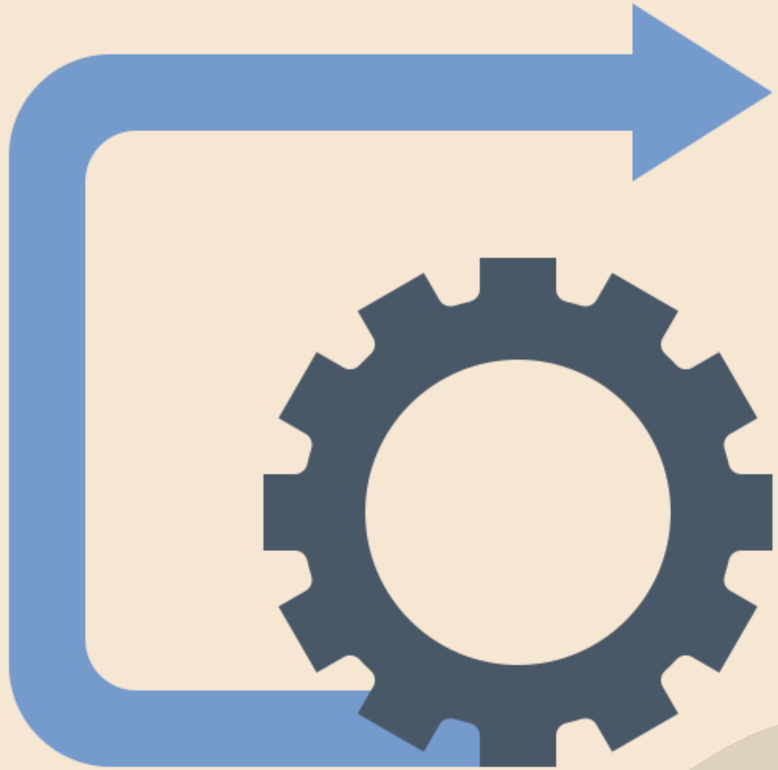
Project supervisor and Senior Software engineer,
Rafael Advanced Defense Systems

Conclusions

- Functional achievments.
- Performance.
- Challenges Addressed.

Future work

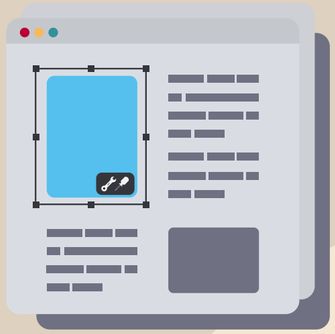
- Improving the UI.
- Multilingual website.
- Adding chat messagnig between users.
- Real-Time transcript.



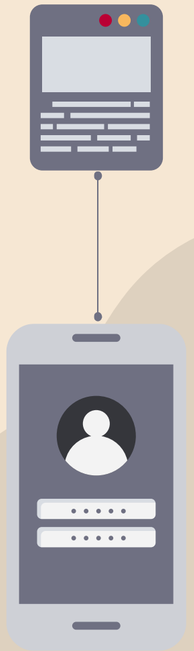
Video Conference

Website

Th



Thanks!

Do you have any questions?
ramiamasha84@gmail.com

https://github.com/RamiAmasha31/rm-video-call