

# V Cinema

Watch movies together with friends

**Cloud Computing and Big Data (COMSE6998\_013)**

Submitted To **Professor Sambit Sahu**

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Video Demo Youtube



# Introduction



## What is Virtual Cinema?

When was the last time you visited a **movie theatre**?

Virtual cinema brings the cinema experience to your room with all the intimate interactions at the movies between you and your loved ones.

This web app allows hosting a virtual watch party, similar to the popular Netflix Party chrome extension, but with more features for a cherishable experience.

Here friends can watch together the videos from websites which allow video embedding – YouTube, Vimeo, Streamable, and even from Facebook!





# Problem Statement & Approach

- A user sets up a link to a video and invites family, friends, or their loved ones to join. The host can invite users via SMS or email and set a particular time to start the video (similar to scheduled zoom meetings). By default, the video continues to play from when the users joined – just like what happens when you hop onto a YouTube live.
- When the watch party is started – the friends can type into the chat box their reactions – just like the live chat in YouTube live video.
- Users will be able to control the playback and speed of the video, which will be automatically synced.
- Users also can chat over voice, similar to the discord VoIP feature, to simulate the experience of laughing or being terrified at particular scenes.
- Users can choose to join with real time video for purposes of recording a reaction video with participants. After the video finishes, users will also have an option to export a recording of the entire session to share as a reaction video.
- Just like a subtitle file (e.g. .srt file extension), which we often see for movies, which store text for a video accompanied by its timestamps; we similarly store all the reactions (can be text/gifs/photos) of all the friends in a room in a file. The file will be saved in the theatre room's log, to be replayed at a later point of time for friends to relinquish their memories!



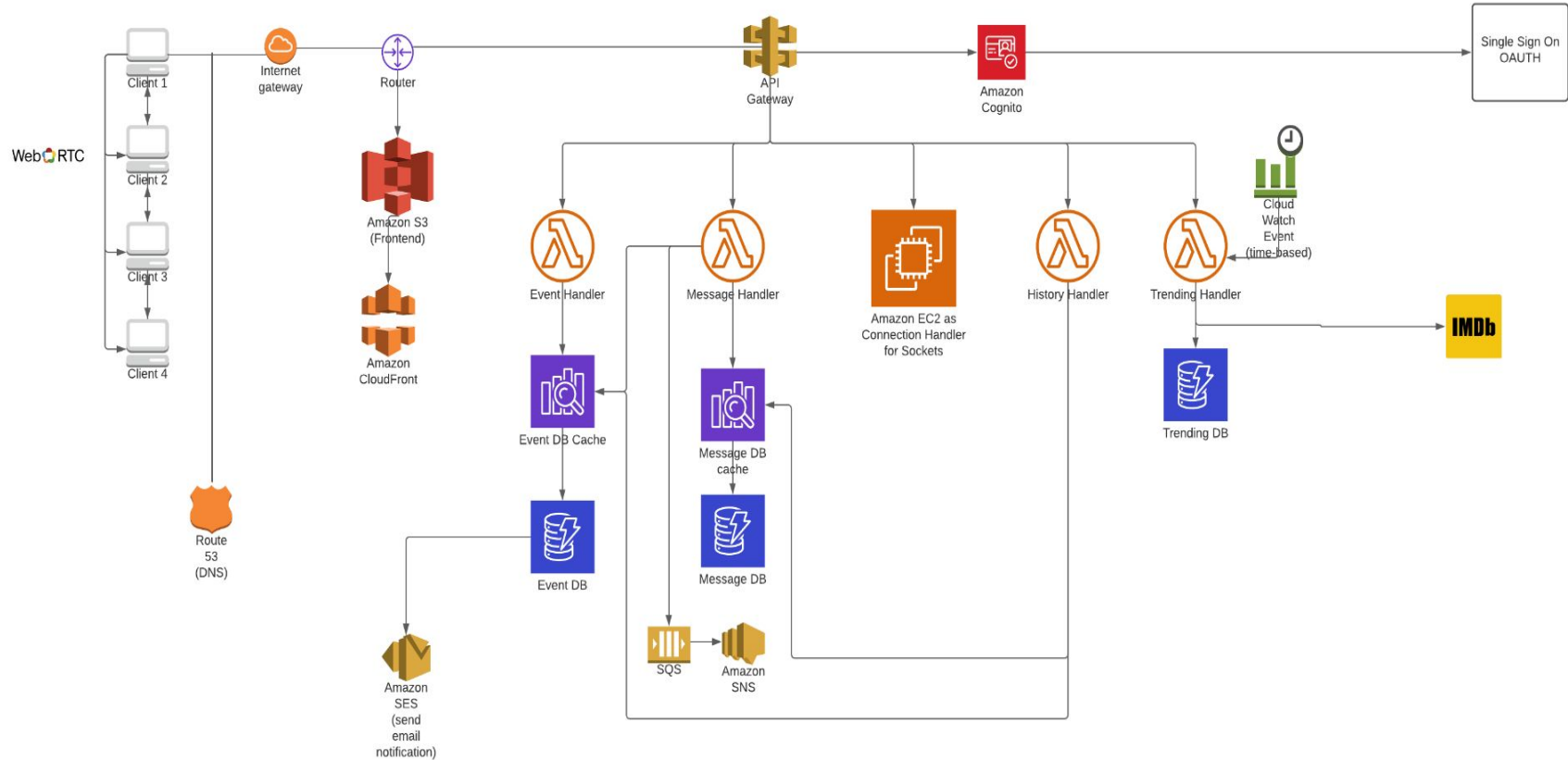
# Features Supported

**We are supporting the following features**

- User Login and Authentication
- Creating new Youtube watch party
- Inviting friends over email for Youtube watch party
- Displaying user's upcoming streams
- Displaying user's previous watch history
- Messages logs of previous watch party
- Video synchronization using Socket Programming
- Any participant can pause the video, can go forward and backward (for all participants)
- Supporting 'reaction' animation on video player
- All Users' live video and Audio feed



# Architecture Diagram





# APIs

API Resource	Description	Method	Route	Lambda
Event	Create Event	POST	/event/{eventID}	<a href="#">vidsync-store-event-details</a>
	Get One Event	GET	/event/{id}	<a href="#">vidsync-get-events-data</a>
	Get All User Events	GET	/event/	<a href="#">vidsync-get-all-events-for-user</a>
Message	Get messages for event	GET	/message/{eventID}	<a href="#">vidsync-get-event-history</a>
	Publish message	POST	/message/	<a href="#">vidsync-publish-message</a>
Auth	Save a user account on registration with the service	POST	/auth	<a href="#">vidsync-store-user</a>
	Get a user account on login	GET	/auth/	<a href="#">vidsync-get-user-information</a>





# Code Structure

## API Gateway

Fetching User  
Info

Publishing  
Messages

Fetching Event  
History

Event  
Scheduling



**AWS Cognito**  
(Authentication)

## Connection Handler

Video Player Sync

Reaction Sync

Video/Audio Call



# Design Details

## Frontend Design

1. React-js
2. AWS Components used: S3 + CloudFront (for SSL support to allow video/audio permissions)

## Backend Design

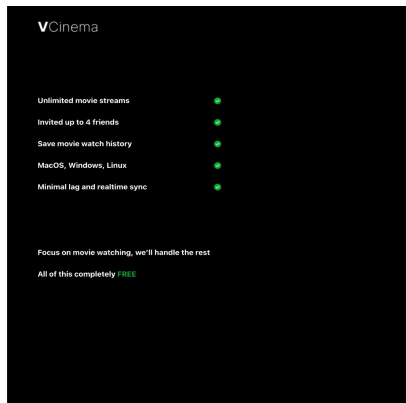
1. Backend was segregated into three sections:
  - Events handling
  - Messages handling
  - User information, Signup/Login, Authentication
2. AWS Components used:
  - Cognito
  - API Gateway
  - Lambda Functions
  - DynamoDB and Trigger
  - SES
  - EC2 (socket connection handler)

## Other:

- Route 53 (DNS)



# Project Screenshots



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## Create Account

For the purpose of industry regulation, your details are required.

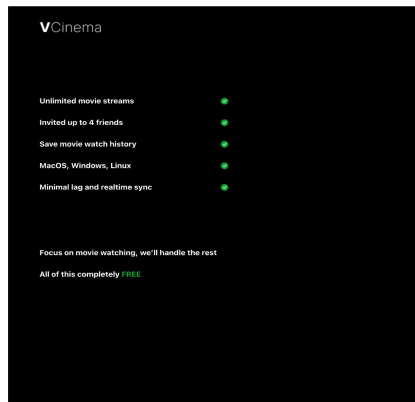
Your fullname\*

Email address\*

Create password\*

☐ I agree to terms & conditions

Register Account



< Back

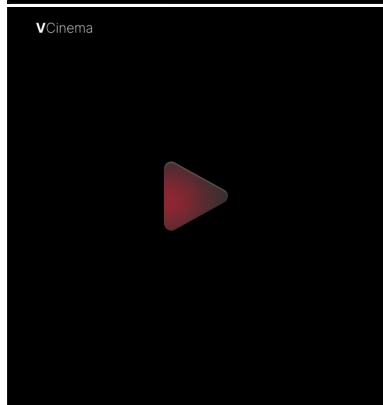
## Login

Email address\*

Password\*

☐ Remember me

Login



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## Create Stream

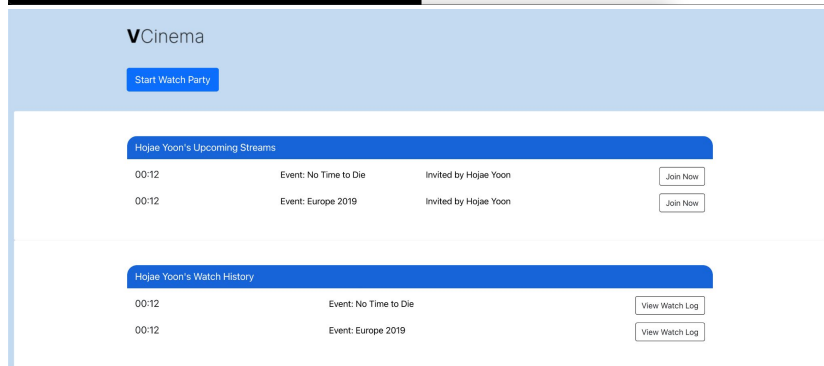
URL of movie

Title

Schedule a time

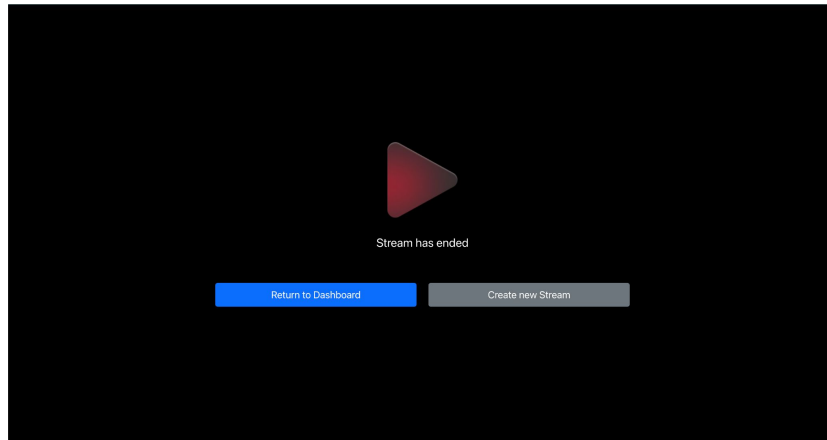
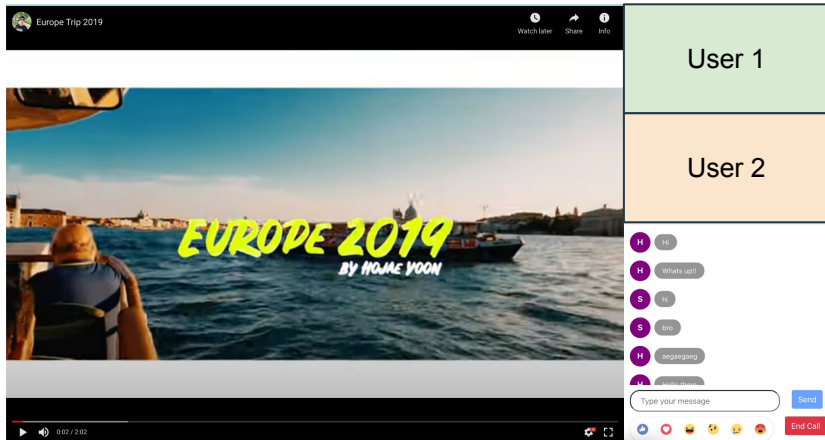
Invite users by email

Schedule Event





# Project Screenshots






# Project Screenshots


V Cinema

Unlimited movie streams 

Invited up to 4 friends 

Save movie watch history 

MacOS, Windows, Linux 

Minimal lag and realtime sync 

Focus on movie watching, we'll handle the rest

All of this completely **FREE**

[< Back](#)

## Create Account

For the purpose of industry regulation, your details are required.

**Your fullname\***

**Email address\***

**Create password\***

☐ I agree to terms & conditions

Register Account



# Project Screenshots

V Cinema

- Unlimited movie streams ✓
- Invited up to 4 friends ✓
- Save movie watch history ✓
- MacOS, Windows, Linux ✓
- Minimal lag and realtime sync ✓

Focus on movie watching, we'll handle the rest

All of this completely **FREE**

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## Login

Email address\*

Password\*

☐ Remember me

Login



# Project Screenshots

V Cinema



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## Create Stream

URL of movie

Netflix, Youtube URL

Title

Coldplay, Squid Games etc.

Schedule a time

--:-- --



Invite users by email

User 1 email

User 2 email (optional)

User 3 email (optional)

Schedule Event



# Project Screenshots

VCinema

Start Watch Party

## Hojae Yoon's Upcoming Streams

00:12	Event: No Time to Die	Invited by Hojae Yoon	<a href="#">Join Now</a>
00:12	Event: Europe 2019	Invited by Hojae Yoon	<a href="#">Join Now</a>

## Hojae Yoon's Watch History

00:12	Event: No Time to Die	<a href="#">View Watch Log</a>
00:12	Event: Europe 2019	<a href="#">View Watch Log</a>





# Project Screenshots



Europe Trip 2019



Watch later



Share



Info



0:02 / 2:02



User 1

User 2

H

Hi

H

Whats up!!

S

hi

S

bro

H

aegaegaeg

H

hello there

Type your message

Send



End Call



# Project Screenshots

vc.hojaeyoon.com/end-party



Stream has ended

[Return to Dashboard](#)

[Create new Stream](#)



# Meet our Amazing Team!

**Shrihan P. (sp3921)**

Frontend Master

25%

Frontend, Integration, bug fixes

Trait: Mr. Hard worker

**Sankalp Apharande (spa2138)**

Backend Expert

25%

AWS Backend, Integration, Bug fixes

Trait: Mr. Problem solver

**Yukti Khurana (yk2950)**

Integration Ninja

25%

AWS Backend, Integration, Bug fixes

Trait: Ms. Team Player

**Hojae Yoon (hy2714)**

Socket Star

25%

AWS Deployment, Integration, Sockets

Trait: Mr. CEO



# Questions?