



# Virtual Class Venture for CSE 402 at 22.02.2021

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## Proposed Main Features:

- Our project main target was to create video streaming based on webrtc.
- Screen controlling and Screen sharing while video streaming.
- Audio mute/unmute option.
- Chat between teacher and student while video streaming.
- Record teacher's activity during video streaming and save it on the system.
- Teacher can see the student participate list.
- Basic CRUD functionality (Profile create and maintenance by teacher and student).
- Admin panel for monitoring teacher and student activities and also manage other admin activities.

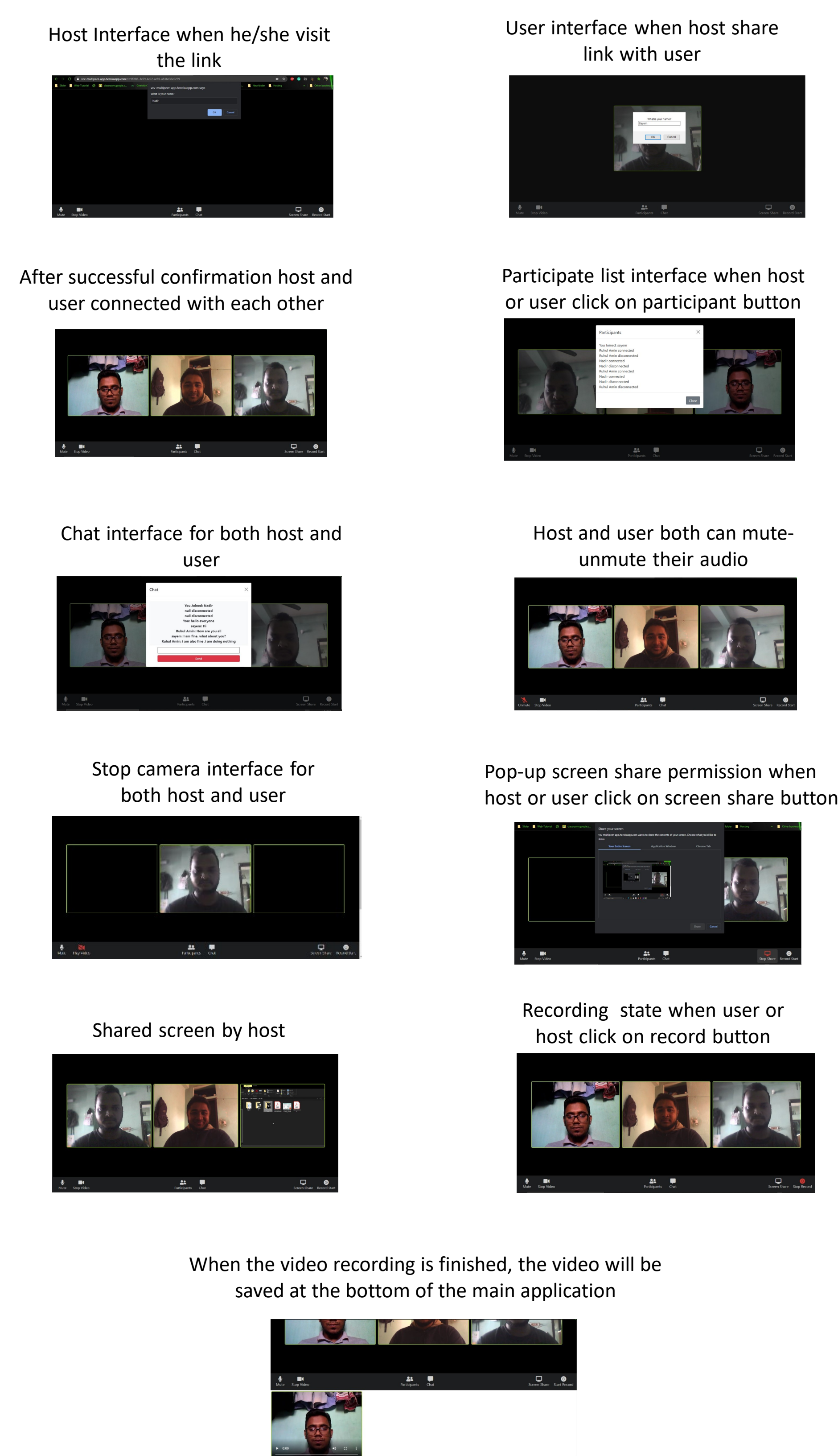
## Proposed Additional Features:

- Basic CRUD functionality include file upload, download, delete etc.
- Comment on post both teacher and student.
- Teacher will be able to take attendance dynamically.
- Teacher will be able to test student in quiz format.
- Create announcement by teacher.
- Teacher will be able to take assignment from student through the system.

## Tools that we have used:

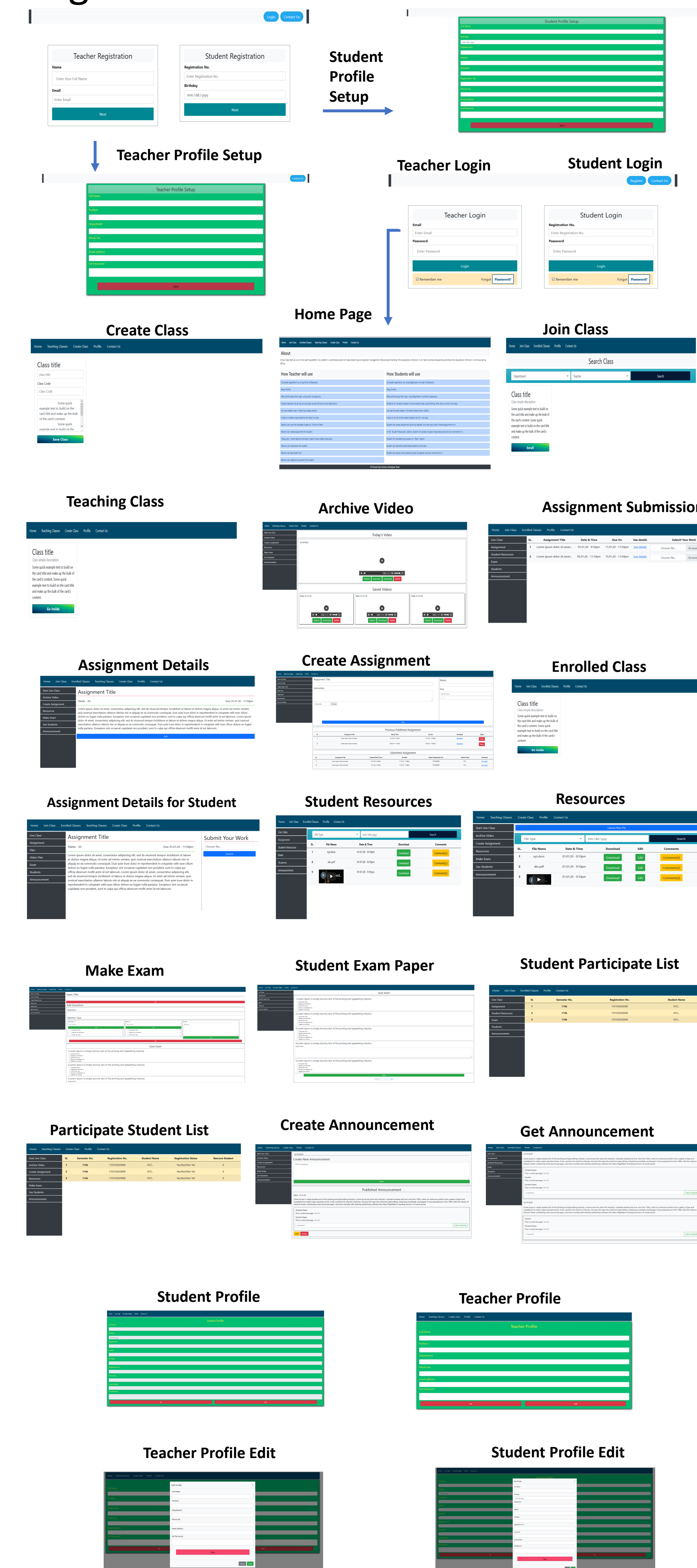
- We have used Bootstrap5 (Alpha) version for designing webpages with some custom CSS.
- For implementing WebRTC we have used Node.js.
- We have used JavaScript to design some feature.
- For developing some features we have used jQuery.
- We have used PeerJS library for peer to peer connection.

## RTC Interface:

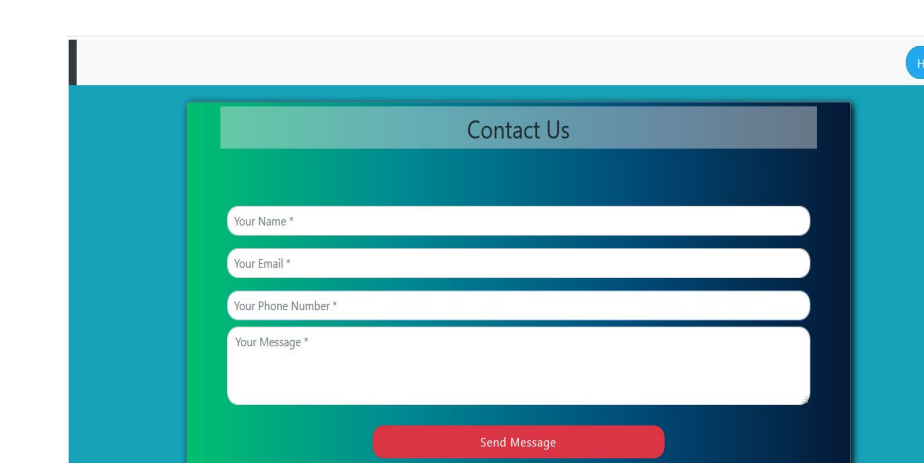


## User Interface Design:

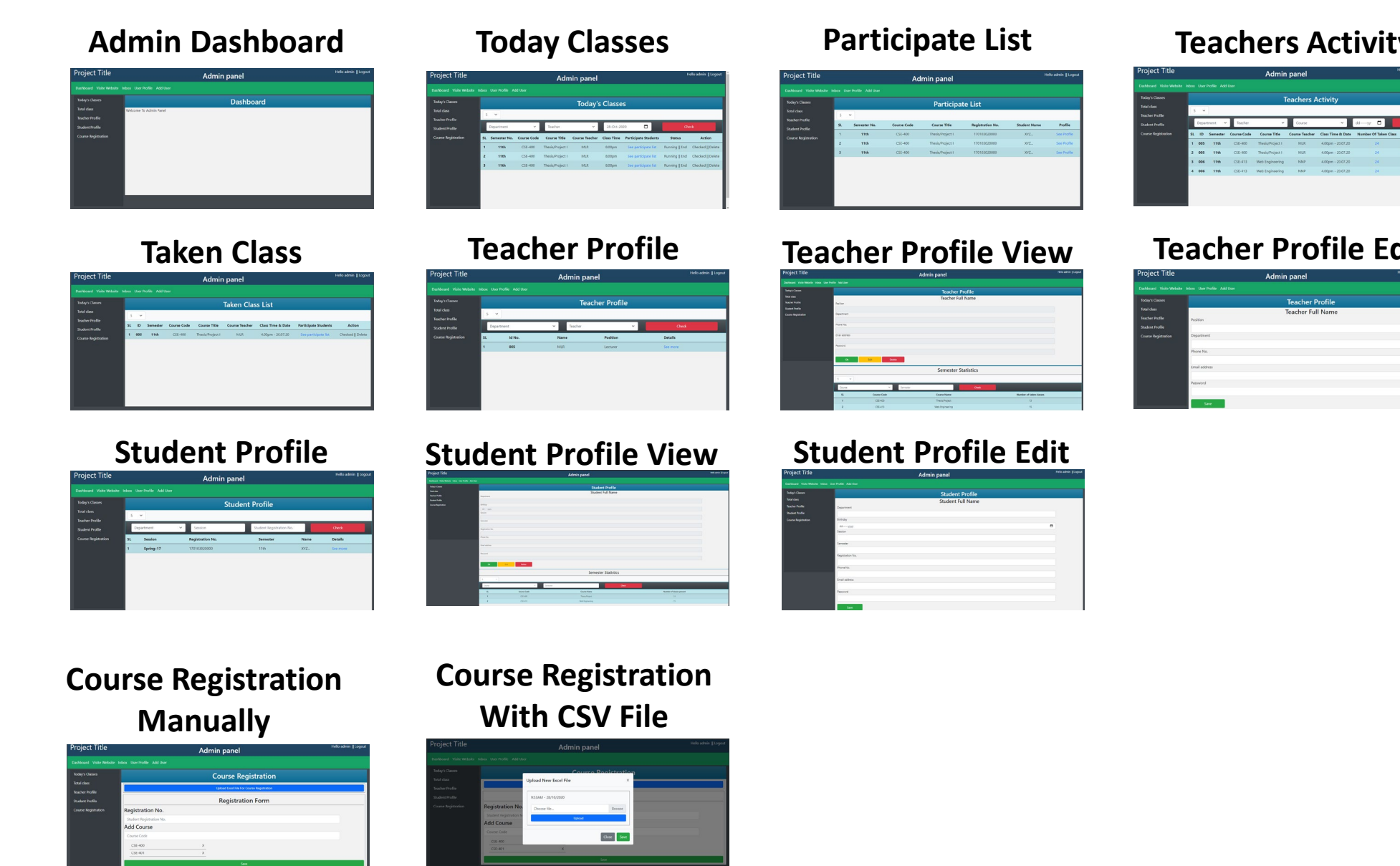
### Registration form



This is a general contact page. This can be used by both the student and the teacher for any query to the admin.



## Admin Interface:



## Works Done:

- We have completed our frontend.
- In this semester we have completed audio mute-unmute, video play-stop, participant list view, chat, screenshare, video recording and downloading part of RTC.
- We also have completed multipeer connection. All of the work which we defined above that we have implemented with multipeer connection.

## Future Work:

- In Future we believe that which works we didn't complete yet its will be completable in future, and we want to work with this project in future.

## Contribution:

- Nadir has done frontend, chat, participant list and Asif has done other part of WebRTC like as audio, video play-stop, screen share, record.
- We both understood every single line of code there is in the project whether it is frontend and RTC.