

Livesitter FullStack Assignment

- Documentation for A RTSP Livestream App with Overlay

Setup

- Backend

- Open backend terminal folder in terminal and run

```
npm install
```

- Change the environment variables in `.env` file in backend folder.
- change MongoDB URI in `.env` file in backend folder.
- Change the port in `.env` file in backend folder.
- To start the server run

```
npm run dev
```

- Frontend

- Open frontend terminal folder in terminal and run

```
npm install
```

- To start react app run

```
npm run dev
```

Using the App

- To view the app go to `http://localhost:{port assigned by react}` usually `http://localhost:5173`
- Then go to `/signup` route and register.
- You will be directed to the login screen and login with your credentials.
- Now you will be in the app at `/overlay` route.



App Main Page

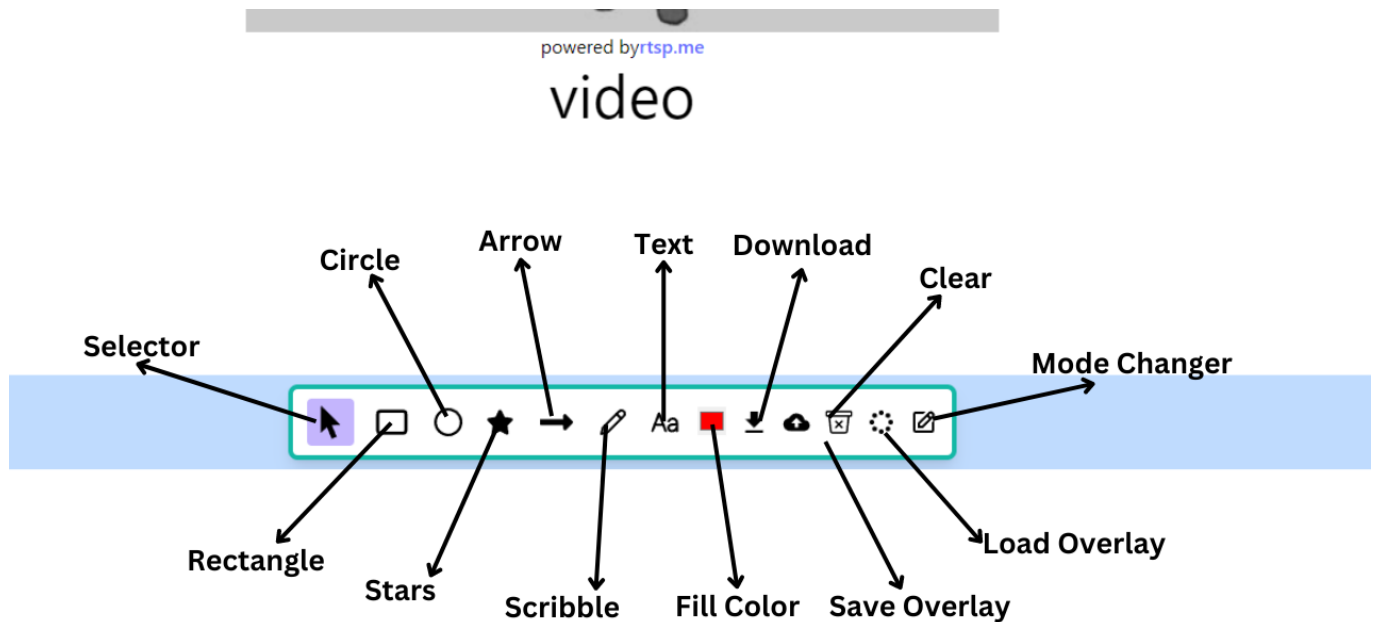
- Now you can start the livestream.
- The Play, Pause, Volume controls are Fullscreen controls are available.

RTSP URL

- I am using [RTSP.me](#) for generating rtsp to http livestream.
- So I have embedded the url in the `overlay.jsx` in the app as `iFrame` component.
- To change the url, just change the url in `overlay.jsx` with the new url from [RTSP.me](#) and it will change the url in the app.

Overlay

- Before we start putting overlays lets look at the [Overlay board](#) below.



overlay board

1. **Selector** - Use selector to activate selector mode, move around and resize the shapes. Make sure you are normally in the selector mode.
2. **Rectangle** - For drawing Rectangle shapes.
3. **Circle** - For drawing Circle shapes.
4. **Stars** - This will spawn draggable stars on the screen.
5. **Arrow** - For drawing Arrows.
6. **Scribble** - For drawing Scribbles.
7. **Text** - For adding text on the screen.
8. **Fill Color** - For choosing fill color of shapes
9. **Download** - To download the overlay as image.
10. **Save** - To save the overlay in database.
11. **Clear** - To clear or delete the overlay from database.
12. **Load** - To load the overlay from database.
13. **Mode Selector** - To switch between overlay and video mode.

- Important Note

- So to start putting the overlay on the screen, click on the **Mode Selector** button to activate overlay mode and it will say "**Overlay**" above the video.
- To Access the video controls click on the **Mode Selector** button again to go back to video mode and it will say "**Video**" below the video.

- Deleting Overlay

- To delete the overlay from database click on the **Clear** button and then click on the **Save** button.

Some Issues

- Its good to be transparent so i should talk about features that require more work to be done.

1. The **Text** feature is not working as expected.

- You can only have one proper text element.
- Adding multiple text does not work properly.
- As they share some states like the text value, color etc.
- So multiple unique texts are not possible yet.

2. I have used MERN stack for the project that means I used NodeJS and ExpressJS as Backend Framework.

- The recommended tech stack for backend framework was Python Flask.
- But I was more Comfortable with NodeJS and ExpressJS also we don't have much time for the assignment project and i had to focus on making the project which was a challenging one.
- So I decided to use MERN stack for the project.