



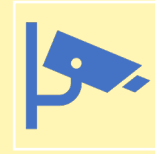
LiveLIVE

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What LiveLIVE does



App will allow authorized users to have video security surveillance of their desired properties/valuables.



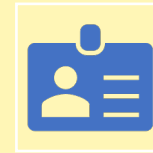
Creates a live streaming session and assigns authorized users to the live stream viewing list.



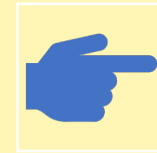
Broadcasts the video feed in real time.



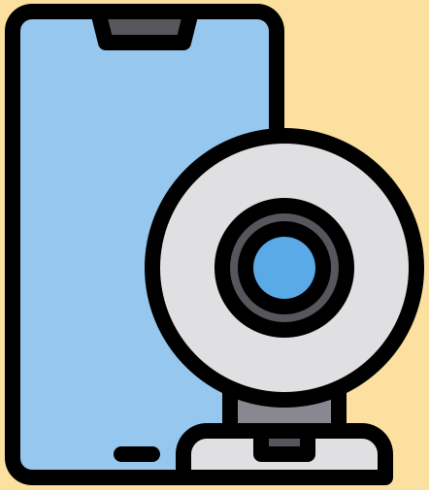
Livestreams the broadcasted video in real time.



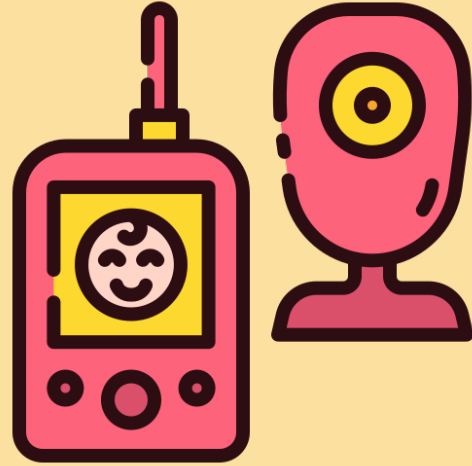
Only registered users with their login credentials and their face are allowed to view the livestream.



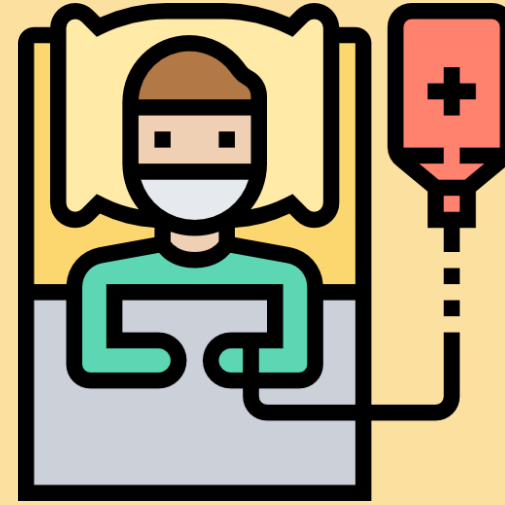
Allows user to enter into any livestream he or she is authorized to.



Public and Home Safety



Infant Monitoring



Patient Monitoring



Exam Monitoring

Use cases

Features In a Nutshell



- The live streaming app will create and broadcast a live stream and assign authorized users to the live stream (only authorized users can view the live stream).
- It can also stop the streaming and delete it.
- This app will be installed on a device doing the security surveillance.



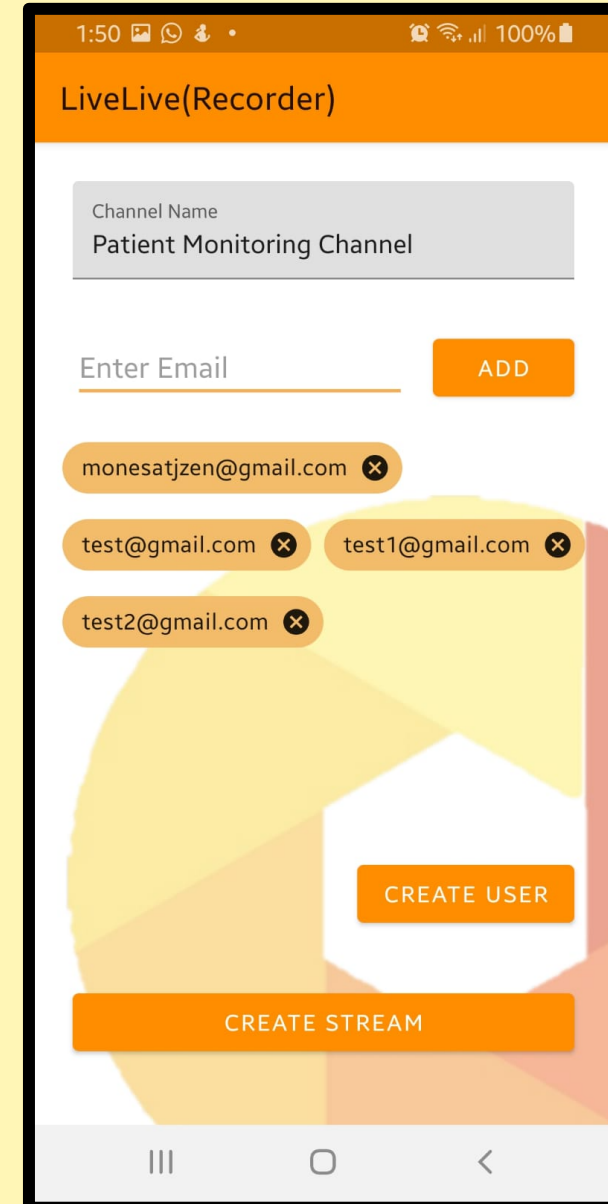
- The viewing app will implement multi-factor authentication using password and face verification.
- While unlocking the app, the face presented to the app screen should match the user profile picture uploaded while creating an account.



- In the viewing app, users can view a list of live video streams they are authorized to monitor.
- They can pick any of the streams and start viewing the content the link is streaming for surveillance.

Streaming App – Creating a Channel

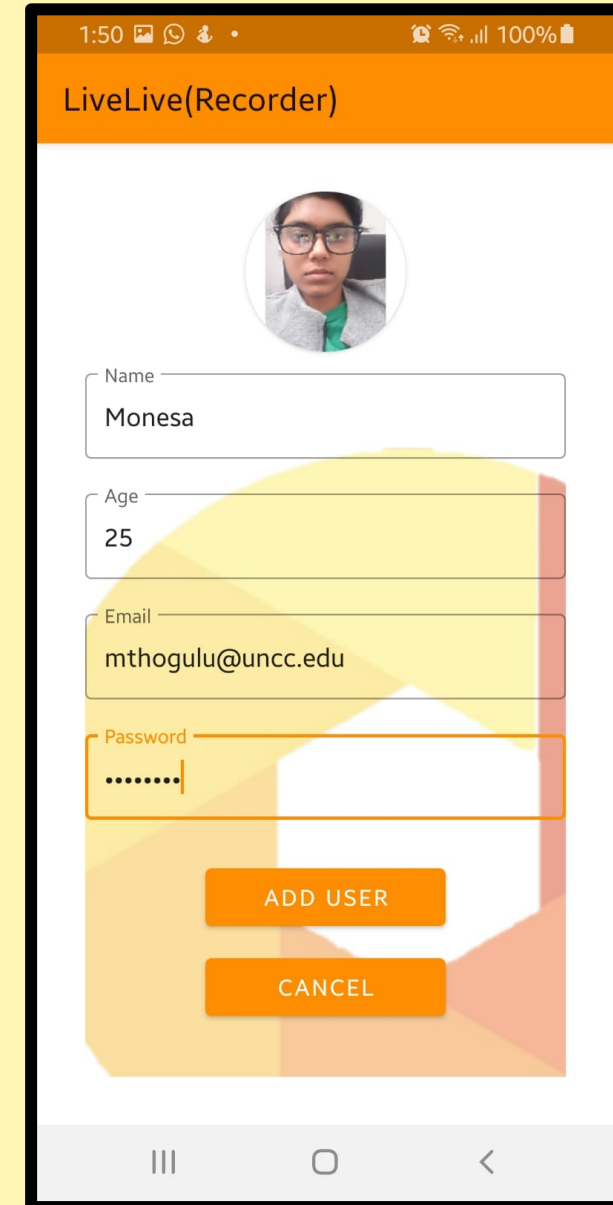
- A user with admin role has access to the streaming app using their assigned username and password.
- Here, the admin can create a new channel to broadcast live video stream.
- The admin needs to provide the following to create a channel:
 1. Channel Name
 2. 1 to 4 authorized users
- At a time, an admin can own only one channel



The screenshot shows the 'LiveLive(Recorder)' app interface on a mobile device. The status bar at the top displays the time 1:50, battery level at 100%, and various connectivity icons. The app's title bar is orange and contains the text 'LiveLive(Recorder)'. Below the title bar, there is a form for creating a channel. It starts with a 'Channel Name' field containing the text 'Patient Monitoring Channel'. Below this is an 'Enter Email' field with an 'ADD' button to its right. Underneath the email field, there are four email addresses listed in orange pill-shaped containers, each with a close button (an 'X' icon): 'monesatjzen@gmail.com', 'test@gmail.com', 'test1@gmail.com', and 'test2@gmail.com'. At the bottom of the form, there are two orange buttons: 'CREATE USER' and 'CREATE STREAM'. The bottom of the screen shows the standard Android navigation bar with three icons: a square, a circle, and a triangle.

Streaming App – Creating Users

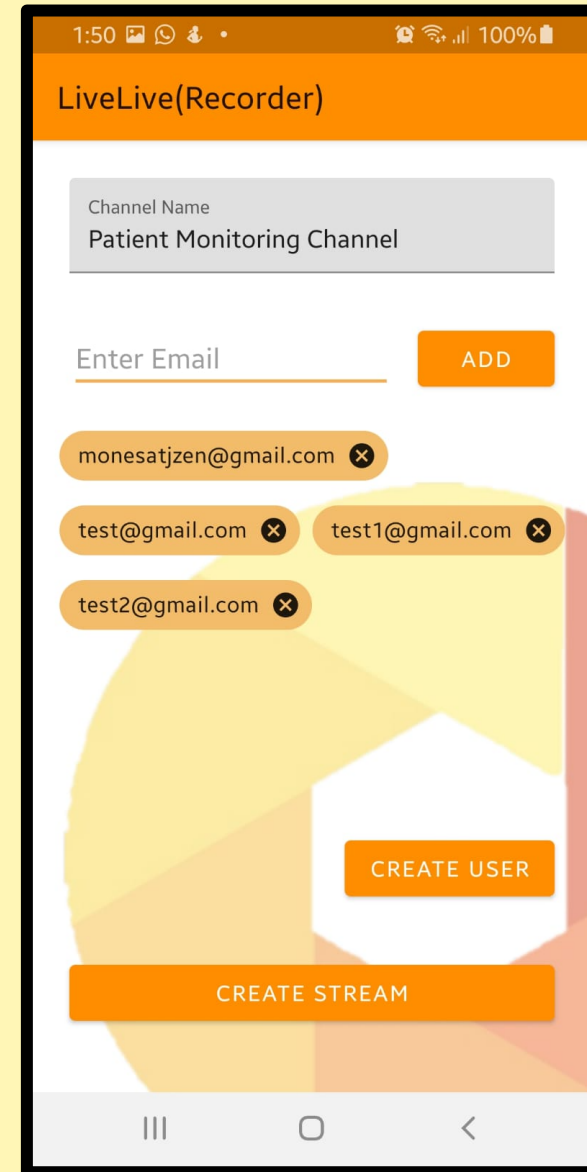
- While an admin creates a channel, they can also create a user.
- This user will not be a part of the system and will have authorized access to the admin created live stream.
- The following needs to be provided to create a user :
 1. Name
 2. Age (should be greater than 10)
 3. Email (should be unique)
 4. Password (length should be 6 to 20 characters)
 5. Valid user photo having only one face



The screenshot shows a mobile application interface titled "LiveLive(Recorder)". At the top, there is a status bar with the time 1:50, signal strength, and 100% battery. Below the title bar, there is a circular profile picture of a person with glasses. The form contains four input fields: "Name" with the value "Monesa", "Age" with the value "25", "Email" with the value "mthogulu@uncc.edu", and "Password" with masked characters ".....". At the bottom of the form, there are two orange buttons: "ADD USER" and "CANCEL". The bottom of the screen shows a standard Android navigation bar with three icons.

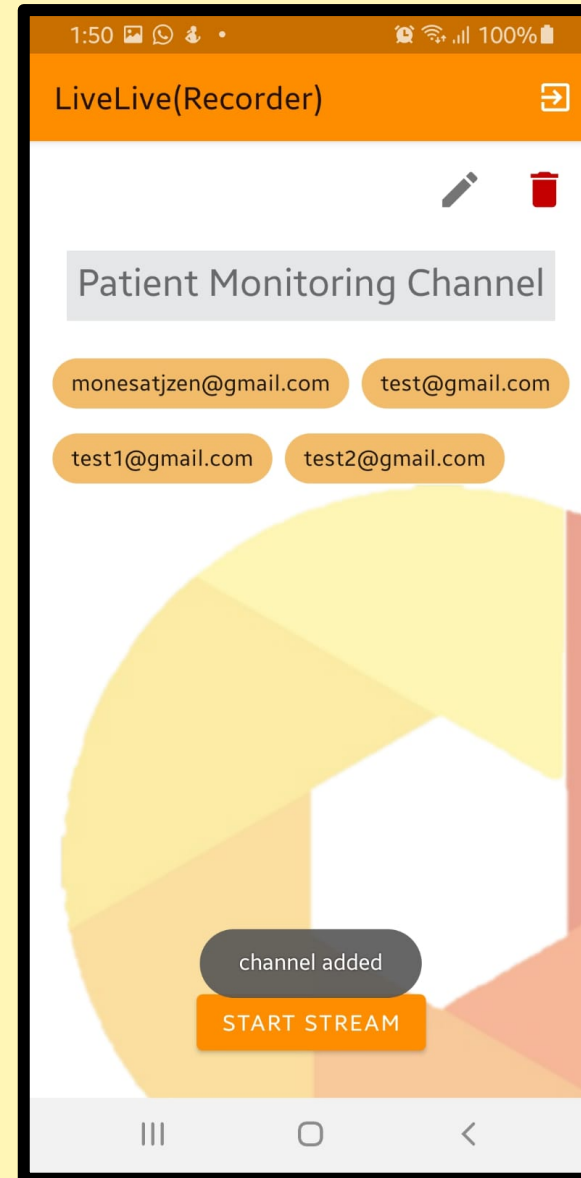
Streaming App – Editing a Channel

- And admin who owns a channel can also edit channel details like channel name and authorized users



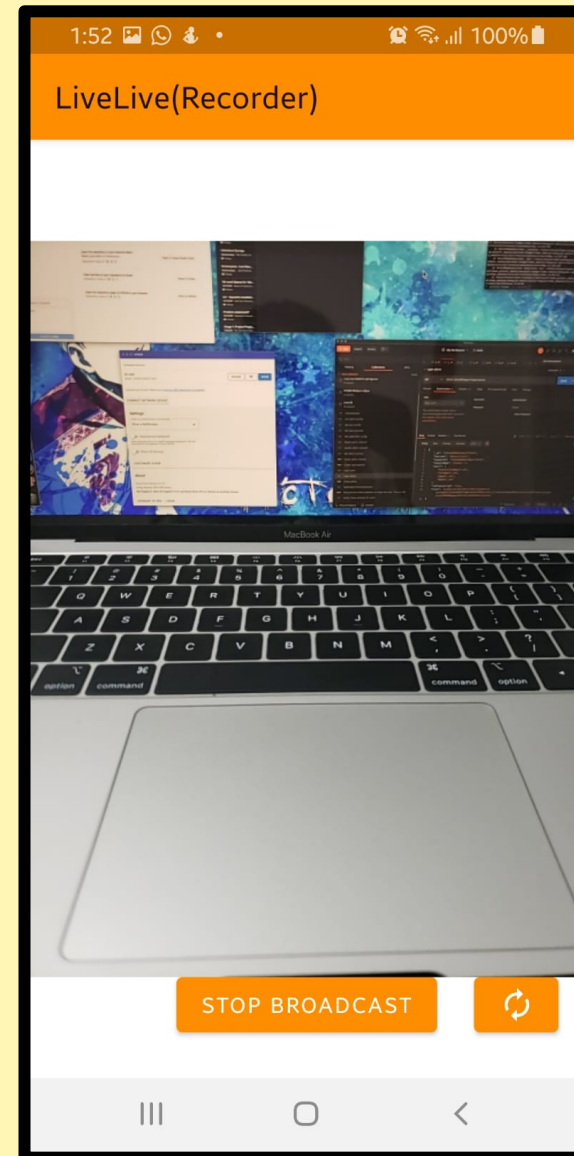
Streaming App – Deleting a channel

- An admin user can delete a previously created channel.



Streaming App – Start and Stop Broadcasting

- An admin can start and stop broadcasting security video footage on an exiting admin channel
- At a time, a logged in admin can broadcast a video stream from only one device.
- The admin can choose between the phone front and back camera to broadcast the video content.

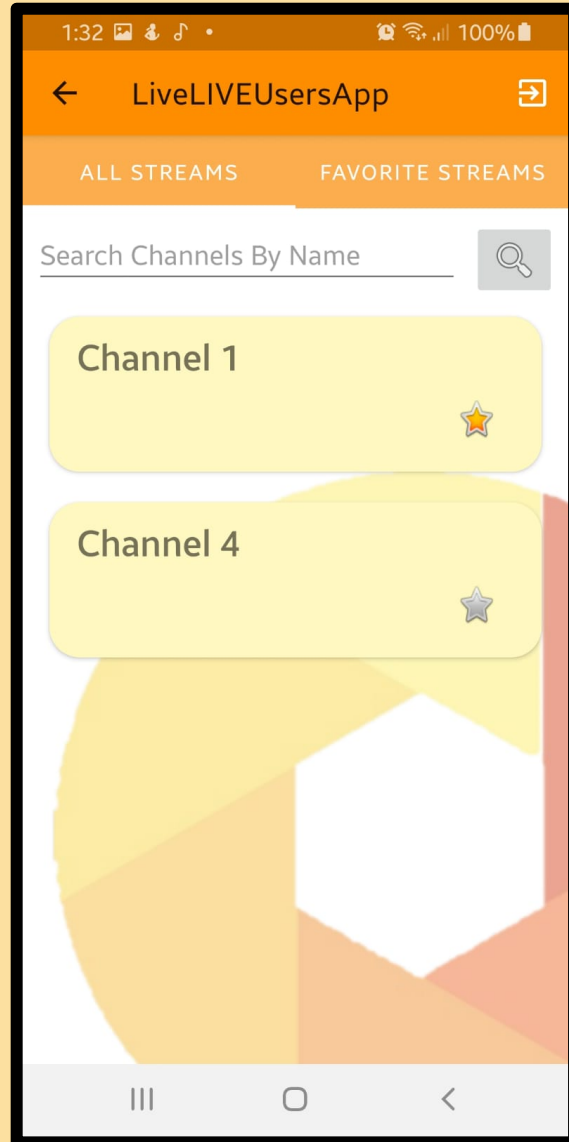


User App – Multifactor Authentication



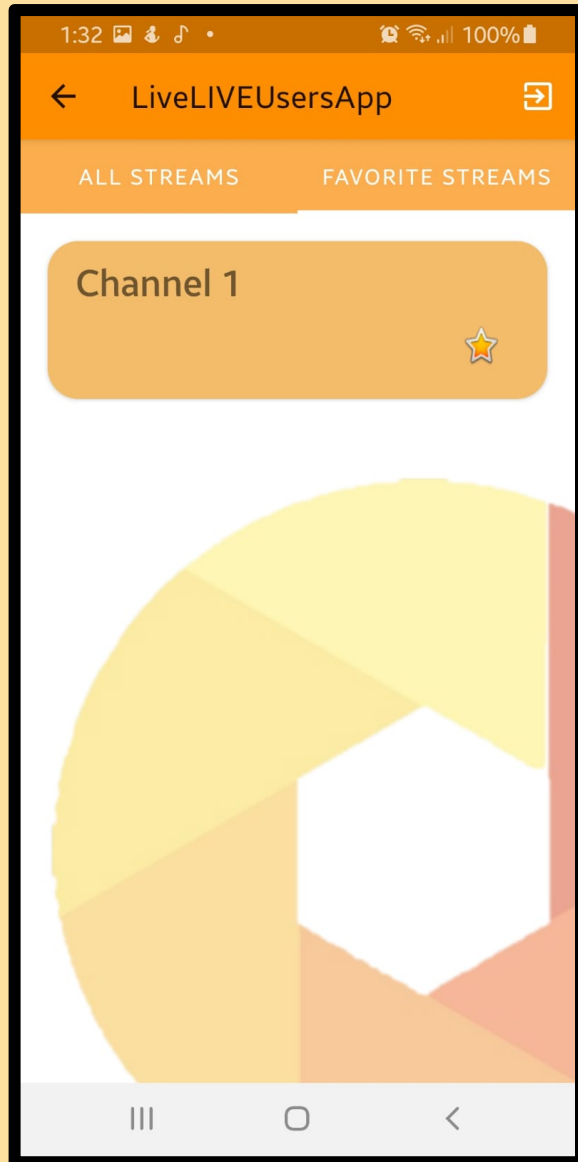
- In order to login to the user app, a user needs to provide two factors for authentication
 1. Text (Email + Password)
 2. Biometric (Face authentication)
- Only when these two factors are verified successfully for similarity, will the user be able to use the features of the app
- First, we will check if the user email and password match. If they do, we will check if the face of this user matches the face with which the user was registered.
- The photo for face verification needs to be clicked real time using the app. User cannot use a preexisting photo.

User App – Viewing Authorized Streams



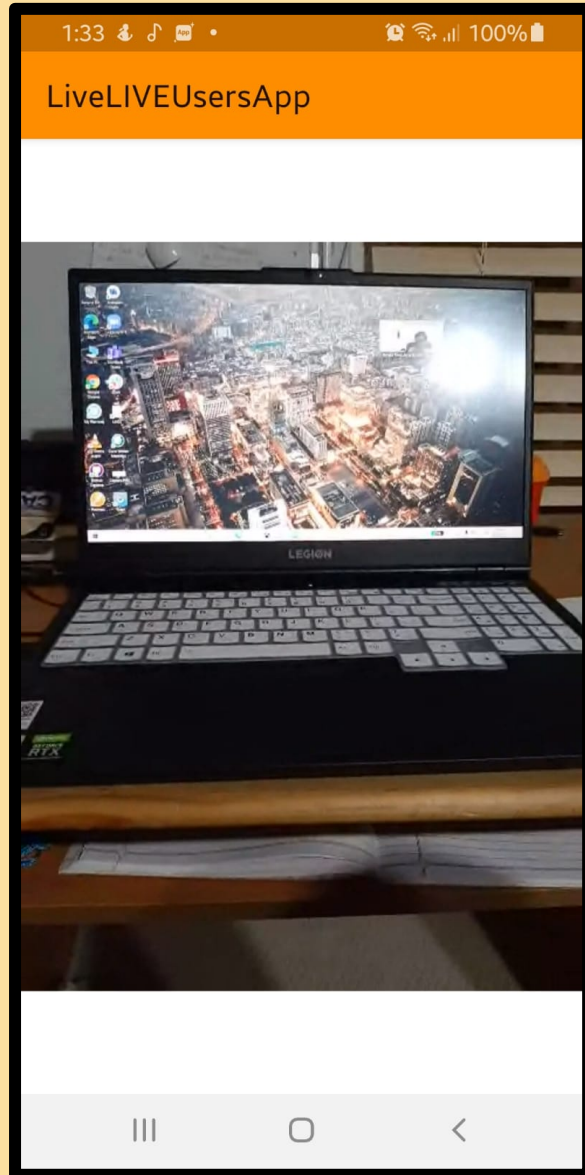
- A user when logged in, can view all the live streams they are authorized to view.
- Here, the user can also search for a particular live stream they are authorized to view by using the search bar

User App – Favorite Channels



- A user can also mark certain channels as Favorites.
- These channels will appear in the Favorites tab.
- Favorited channels can also be unfavorited.

User App – Viewing Live Streams



- A user can view any live stream video content by clicking on any of the live streams available.
- The user can also stop viewing the content by exiting the stream
- They can start viewing live streams from the home page as well as from the Favorites tab.



Questions