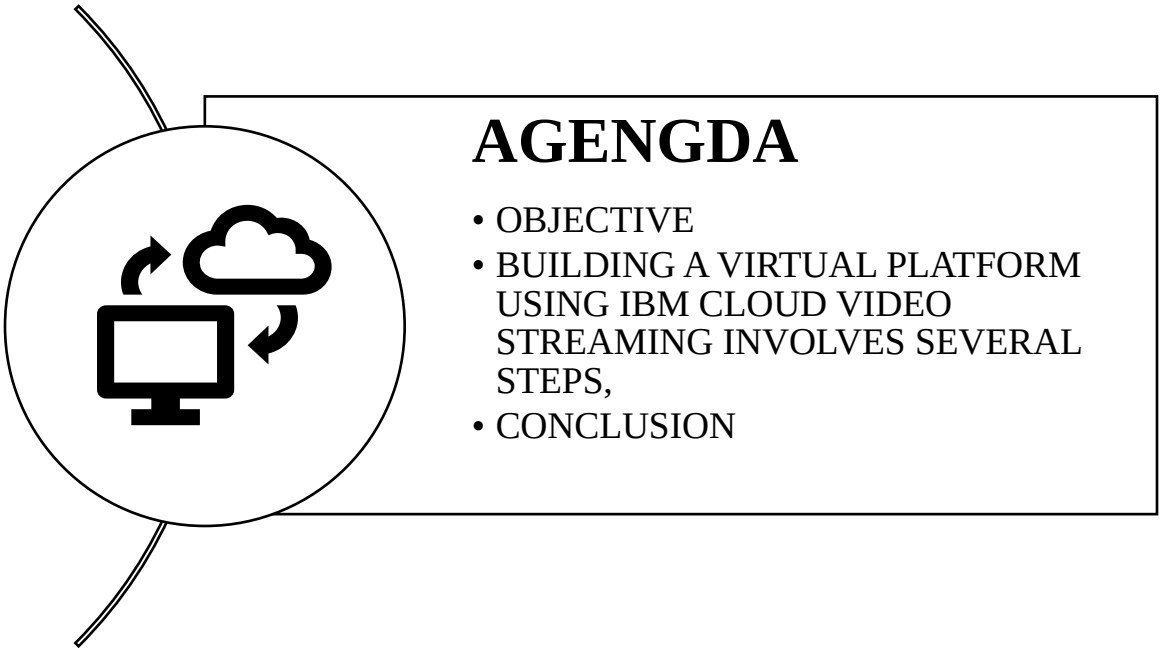
# MEDIA STREAMING WITH IBM CLOUD VIDEO STREAMING

# PHASE 3- DEVELOPMENT PART-1



## AGENGDA

- OBJECTIVE
- BUILDING A VIRTUAL PLATFORM USING IBM CLOUD VIDEO STREAMING INVOLVES SEVERAL STEPS,
- CONCLUSION

## OBJECTIVE:

The goal of this project is to create a virtual platform that leverages IBM Cloud Video Streaming to facilitate interactive and secure video experiences. The platform will cater to diverse use cases such as virtual events, webinars, online education, and collaborative meetings.

## STEP 1: DEFINE VIRTUAL PLATFORM FEATURES:

### 1. Live Video Streaming:

- Utilize IBM Cloud Video Streaming services for seamless and reliable live video streaming.
- Support for high-quality video with adaptive bitrate streaming.

### 2. Interactive Features:

- Real-time chat for audience interaction.
- Q&A sessions and polls during live events.
- Integration with social media platforms for sharing and engagement.

### 3. User Management:

- User profiles with customizable avatars.
- User roles (e.g., viewer, presenter, moderator) for different levels of access.
- Personalized content recommendations based on user preferences.

### 4. Virtual Rooms:

- Creation of virtual rooms for specific events or topics.
- Ability to schedule and manage multiple concurrent events.

### 5. Recording and Playback:

- Automatic recording of live sessions for later playback.
- User-friendly interface for accessing and managing recorded content.

## Step 2: Design an Intuitive User Interface:

### 1. Dashboard:

- Overview of upcoming events and recommended content.
- Quick access to ongoing live sessions and recorded content.

**2. Event Pages**:

- Clean and intuitive design for each virtual event page.
- Information about speakers, agenda, and participant list.

**3. User Profile:**

- Editable user profiles with personalization options.
- History of attended events and saved content.

**4. Interactive Elements:**

- Intuitive chat interface with emoji support.
- Clear options for submitting questions and participating in polls.

**5. Responsive Design:**

- Ensure compatibility across various devices (desktop, tablet, mobile).

## STEP 3: SET UP USER REGISTRATION AND AUTHENTICATION:

**1. User Registration**:

- Secure registration process with email verification.
- Option for social media login (OAuth) for convenience.

**2. Authentication Mechanisms:**

- Implement multi-factor authentication for added security.
- Token-based authentication for API access.

**3. Role-Based Access Control:**

- Define roles such as viewer, presenter, and moderator.
- Different levels of access based on user roles.

**4. Privacy and Data Security:**

- SSL encryption for data in transit.
- Compliance with data protection regulations.

## STEP 4: IBM CLOUD INTEGRATION:

**1. IBM Cloud Video Streaming Service:**

- Set up and configure the IBM Cloud Video Streaming service.
- Integrate APIs for live streaming and content management.

**2. Scalability and Performance**:

- Optimize the platform for scalability during peak usage.
- Implement CDN integration for efficient content delivery.

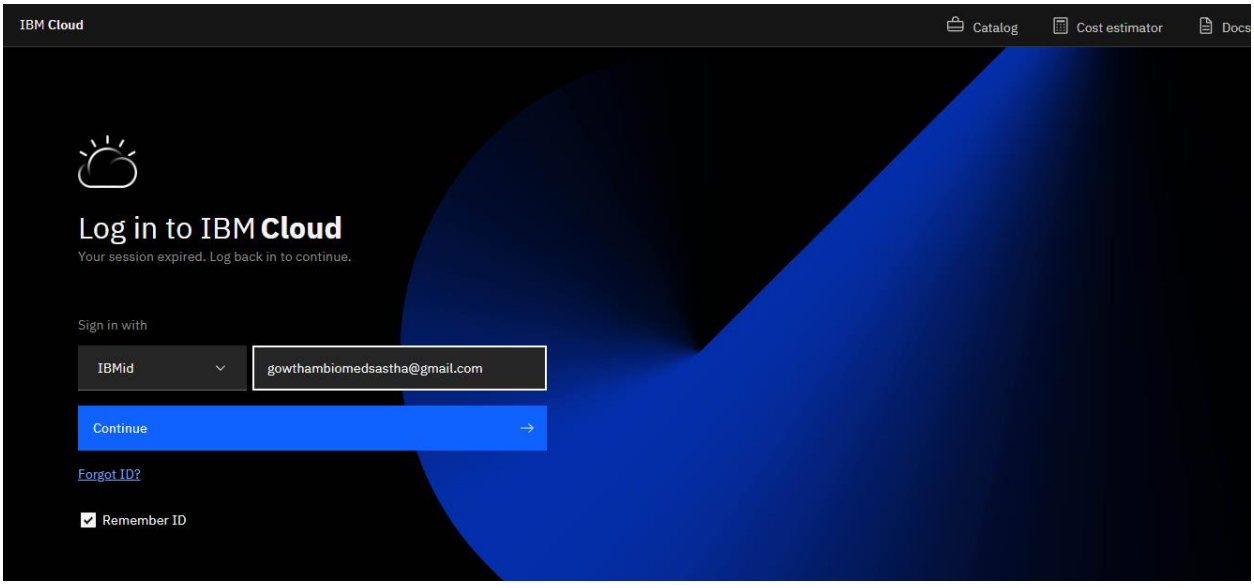
**3. Monitoring and Analytics:**

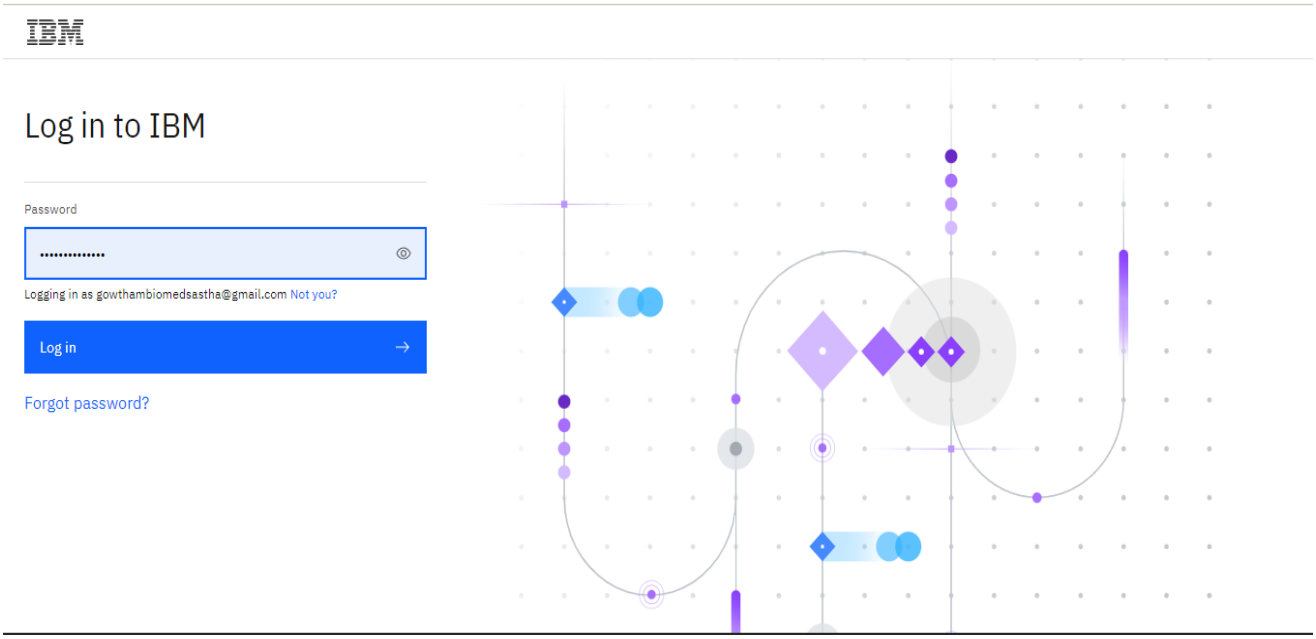
- Use IBM Cloud monitoring tools for real-time performance insights.
- Implement analytics to track user engagement and content popularity.

**Building a virtual platform using IBM Cloud Video Streaming involves several steps, including setting up an IBM Cloud account, creating a video streaming instance, configuring your streaming settings, and integrating the streaming service into your application or website. Here's a general guide to help you get started:**

## Step 1: Sign up for IBM Cloud

- **Go to the IBM Cloud website**: IBM Cloud
- **Sign up for an account**: Follow the registration process to create an IBM Cloud account if you don't have one.

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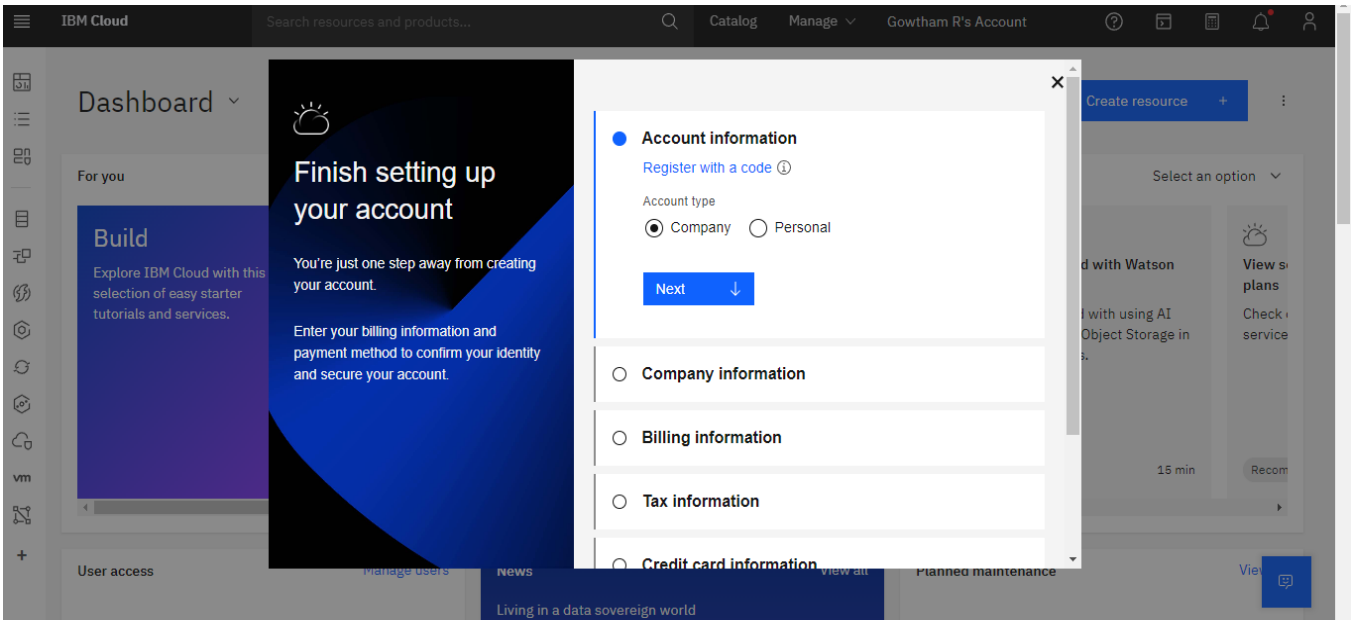
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Select an option
Build
Explore IBM Cloud with this selection of easy starter tutorials and services.
Finish setting up your account
You're just one step away from creating your account.
Enter your billing information and payment method to confirm your identity and secure your account.
Account information
Register with a code
Account type
Company
Personal
Next
Company information
Billing information
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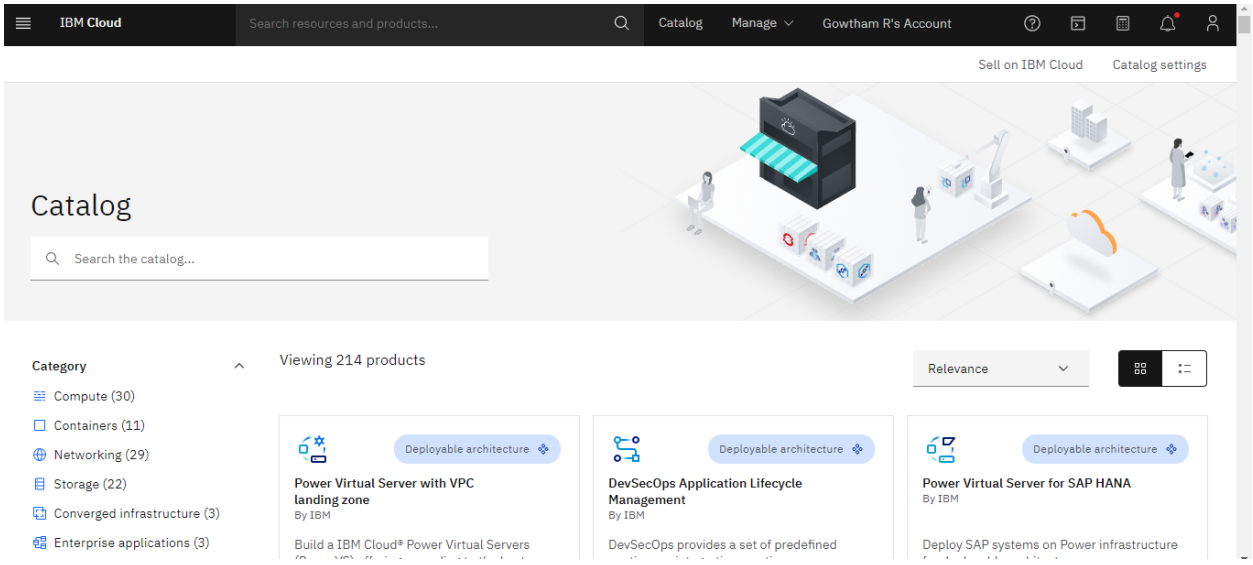
Planned maintenance

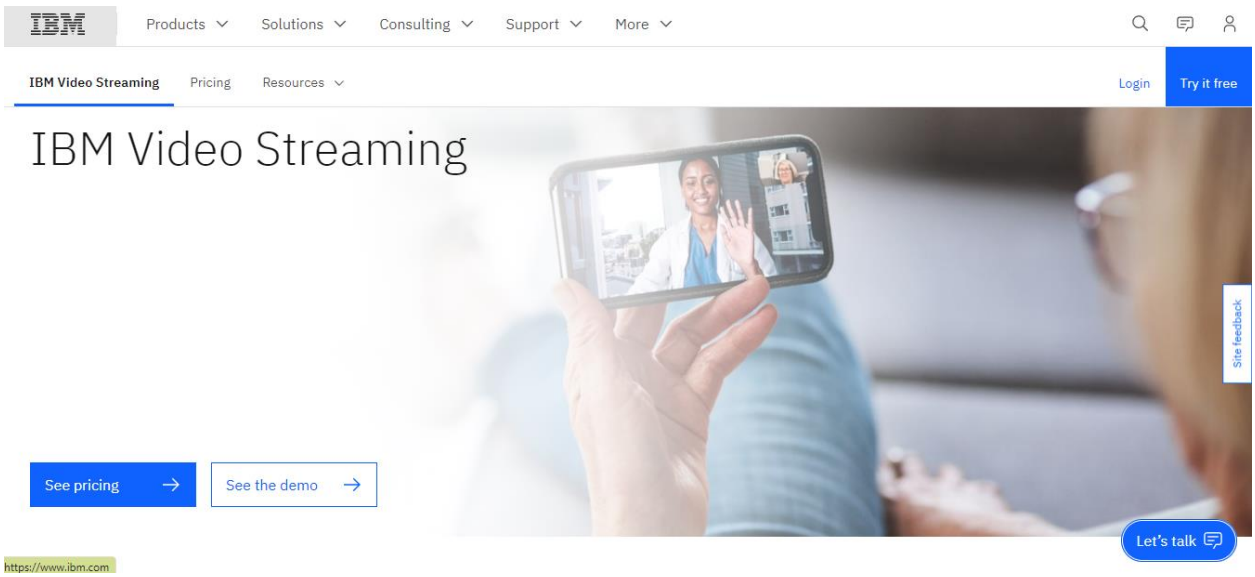
## Step 2: Create an IBM Cloud Video Streaming Instance

### 1. Log in to your IBM Cloud account.

### 2. Navigate to the IBM Cloud Video Streaming service:

- In the IBM Cloud Dashboard, click on "Catalog" in the top navigation bar.
- Search for "Video Streaming" in the catalog.
- Select the "Video Streaming" service from the results.



**3. Create an instance:**

- Click "Create" to create a new instance of the Video Streaming service.
- Choose your pricing plan and configure the instance settings.

## Step 3: Configure Video Streaming

**1. Access your Video Streaming instance:**

- After creating the instance, go to the IBM Cloud Dashboard.
- Find your Video Streaming service instance and click on it to access its settings.

**2. Configure your video settings:**

- Set up your streaming configurations, including video quality, security settings, and any other preferences you have.

## Step 4: Get Your API Key and Secret

**1. Generate API Key and Secret:**

- In your IBM Cloud Dashboard, go to “Manage” for your Video Streaming instance.
- Under “Service credentials,” create a new set of credentials that include an API Key and Secret.

## Step 5: Integrate Video Streaming into Your Virtual Platform

**1. Use the API Key and Secret in your application:**

- In your application's code, use the API Key and Secret to authenticate and interact with the IBM Cloud Video Streaming API.

**2. Follow IBM's documentation:**

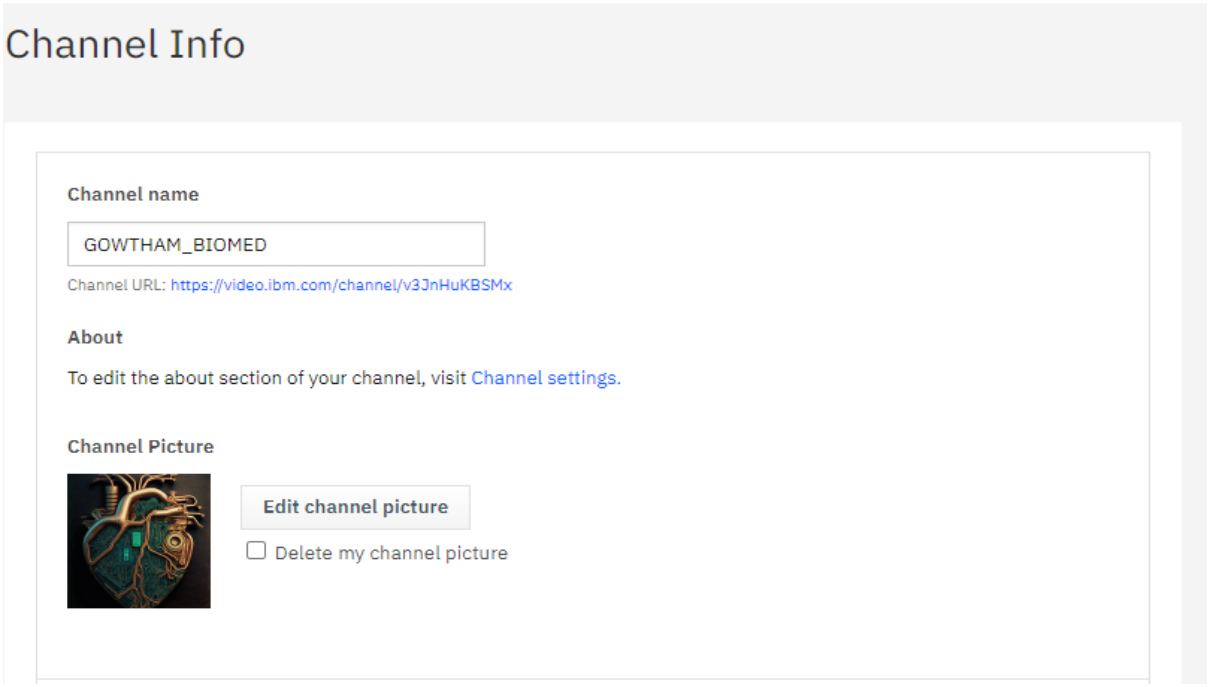
- Refer to the official IBM Cloud Video Streaming documentation for detailed information on API endpoints, integration options, and best practices.

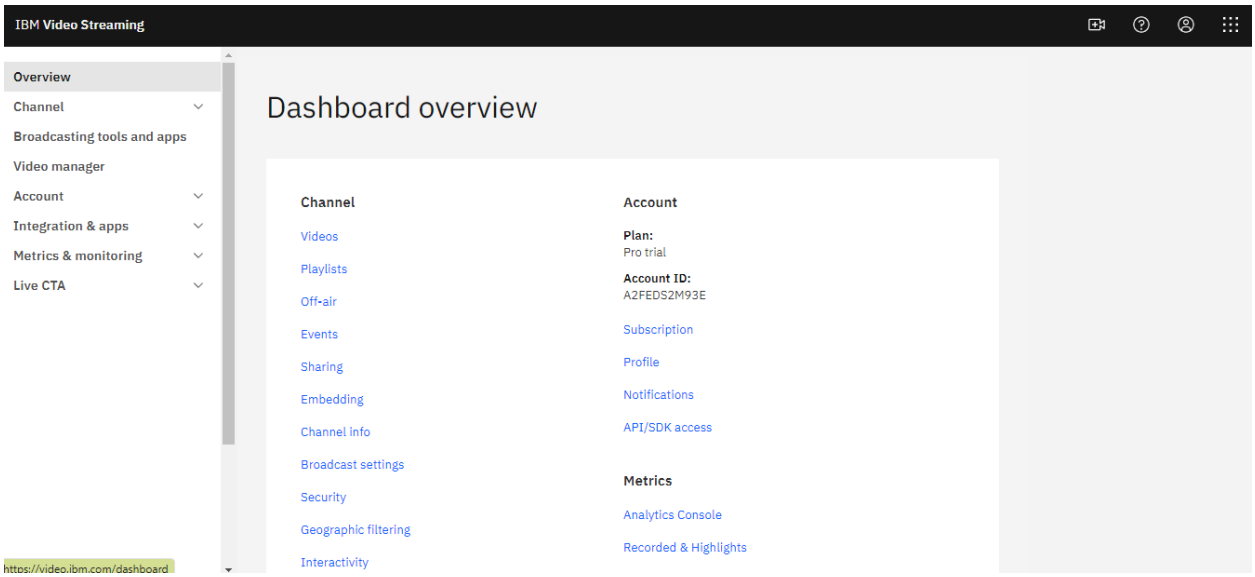
## Step 6: Test Your Virtual Platform

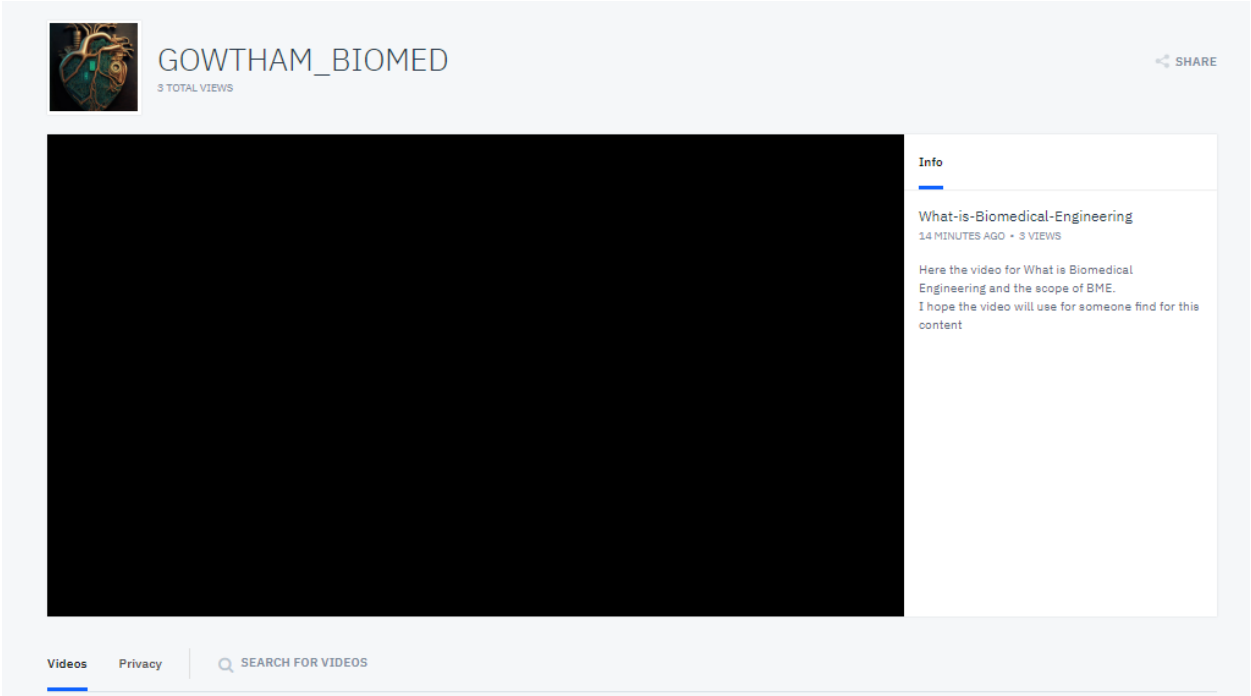
### 1. Test the video streaming:

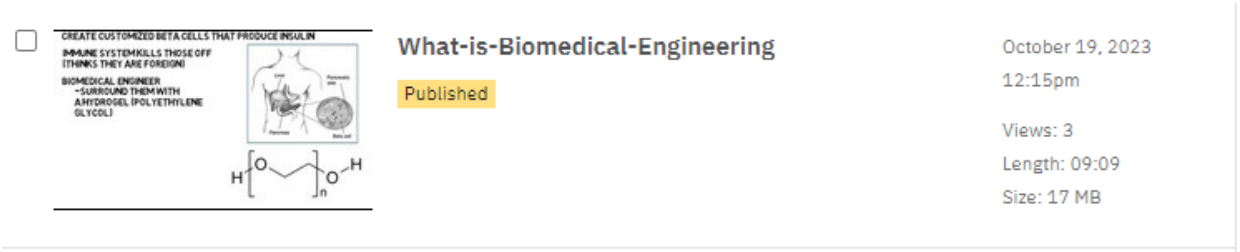
- Integrate video streaming into your virtual platform and test it to ensure that the streaming service is working as expected.
  I hereby attach my channel link and the broadcasted video also

**https://video.ibm.com/channel/v3JnHuKBSMx**






## CONCLUSION:

This project aims to deliver a feature-rich and secure virtual platform using IBM Cloud Video Streaming, offering users an immersive and interactive experience. The combination of live video streaming, interactive features, and robust user management will create a versatile platform suitable for a variety of applications. cure access to the virtual platform.