IBM Phase 4

Media Streaming With IBM Cloud video Streaming

Last time , We discussed about development of our project and stated its features, now we will continue our development by integrating video streaming services and on-demand playback.

By giving access to users to upload movies/videos, we need to remember that to remove any copyrighted movies in our platform and maintaining policies of others is essential.

Let’s move on to our development:

First we have to sign-in an account:

**Signing up for IBM Cloud for Video Streaming:**

1. Go to the IBM Cloud website (<https://cloud.ibm.com/>).
2. Click on "Sign Up" to create a new account if you don't already have one.
3. Fill in your information, including your email address, first name, last name, and password. Accept the terms and conditions and click "Next."
4. Provide additional information such as your phone number and company details.
5. Verify your email address by clicking on the confirmation link sent to your email.
6. Once your account is set up, log in to the IBM Cloud Dashboard.
7. In the dashboard, go to the "Create Resource" option and search for "Video Streaming."
8. Select the "Video Streaming" service and follow the prompts to create your instance.

Implementing Functionality for users to upload :

1.User Authentication and Management

2.File Upload and Storage

3.Video Encoding and Trancoding

4.IBM Cloud Video Streaming Integration

5.Video Metadata Management

6.Video Playback Interface

7.UI

8.Content Moderation

9.Testing and Quality Assurance

10.Continuous Improvement

1. **User Authentication and Management:**
   * Implement a user authentication system to ensure secure access and user management.
   * Allow users to register, log in, and manage their profiles.
2. **File Upload and Storage:**
   * Develop an interface for users to upload their videos. This interface should allow them to select video files from their devices.
   * Choose a storage solution to store these uploaded videos. You can use cloud storage services like Amazon S3, Google Cloud Storage, or Azure Blob Storage.
3. **Video Encoding and Transcoding:**
   * Implement a video encoding/transcoding system to ensure that uploaded videos are in the appropriate format and resolution for streaming. You can use services like FFmpeg or cloud-based encoding services.
   * Ensure that the transcoded videos are optimized for different devices and bandwidths.
4. **IBM Cloud Video Streaming Integration:**
   * Set up an IBM Cloud Video Streaming account if you don't have one already.
   * Integrate the IBM Cloud Video Streaming API into your platform. You'll need to obtain API keys and credentials from IBM.
   * Use the API to create channels for streaming and to manage video content. IBM provides comprehensive documentation for this.
5. **Video Metadata Management:**
   * Develop a database to store metadata about each uploaded video. This metadata should include information like the title, description, duration, author, upload date, and the video's location in your storage system.
   * Link each video's metadata to its corresponding video file.
6. **Video Playback Interface:**
   * Create a video player interface that supports on-demand playback. You can use HTML5 video players or third-party video player libraries for a smooth and consistent user experience.
   * Integrate the IBM Cloud Video Streaming player into your platform to ensure high-quality video playback.
7. **User Interface and User Experience:**
   * Design user-friendly interfaces for video uploading, video management, and video playback.
   * Implement features like video thumbnails, progress bars, and video categorization to enhance user experience.
8. **Content Moderation:**
   * Implement content moderation features to prevent the upload of inappropriate or prohibited content. You can use AI-based content moderation tools for this.
9. **Testing and Quality Assurance:**
   * Thoroughly test your platform to ensure smooth video upload, transcoding, and playback.
   * Test for performance and scalability to handle a large number of users and videos.
10. **Continuous Improvement:**
    * Regularly update and improve your platform based on user feedback and emerging technologies

All these are implemented by IBM Cloud video streaming services

We will further Improve our development in upcoming phases!

Thank You!!