Media Streaming with IBM Cloud Video Streaming

Project Development Part 2

Introduction:

This document describes the development of a virtual cinema platform using IBM Cloud Video Streaming services. In this phase, we will continue building the platform by integrating video streaming services and enabling on-demand playback. We will also implement the functionality for users to upload their movies and videos to the platform.

Integration with IBM Cloud Video Streaming:

To integrate with IBM Cloud Video Streaming services, we will use the IBM Cloud Video Streaming SDK for Python. The SDK provides a simple and easy-to-use interface for uploading videos to IBM Cloud Video Streaming and generating video playback URLs.

On-Demand Playback:

To enable on-demand playback, we will store the video playback URLs in a database. When a user selects a video to watch, we will generate a video playback URL from the database and redirect the user to the video player.

Uploading Videos to the Platform:

To enable users to upload their movies and videos to the platform, we will implement a file upload form. The form will allow users to select a video file and upload it to the platform. Once the video file is uploaded, we will validate the video file and upload it to IBM Cloud Video Streaming. We will then store the video playback URL in the database.

Smooth and High-Quality Video Playback:

The platform uses IBM Cloud Video Streaming services to enable smooth and high-quality video playback. IBM Cloud Video Streaming services use a

variety of techniques to ensure that videos play smoothly and with high quality, even on devices with low bandwidth.

Implementation:

We will use the following technologies to implement the above features:

- Python
- IBM Cloud Video Streaming SDK
- Flask

Steps:

- Install the Flask framework
- Create a Flask application file
- Create a Video Streaming service instance on IBM Cloud.
- Create a database to store the video playback URLs.
- Implement the file upload form
- Implement the functionality to generate video playback URLs from the database and redirect users to the video player
- Test the platform to ensure that all features are working as expected.

Conclusion:

This document has described the development of a virtual cinema platform using IBM Cloud Video Streaming services. The platform enables users to register and create an account, browse and select movies and videos to watch, and upload their own movies and videos to the platform. The platform also allows users to watch videos on demand with smooth and high-quality video playback.