

Media Streaming using Cloud

Problem Definition

The project involves creating a virtual cinema platform using IBM Cloud Video Streaming. The objective is to build a platform where users can upload and stream movies and videos on-demand. This project encompasses defining the virtual cinema platform, designing the user interface, integrating IBM Cloud Video Streaming services, enabling on-demand video playback, and ensuring a seamless and immersive cinematic experience.

Design Thinking

Platform Definition

The features of the video streaming platform involve

- Uploading and streaming the videos and movies of your choice using cloud, with the help of internet connection.
- User's "g-mail ID" will be used to create a channel of their own and register themselves in the platform to upload and stream videos.
- Internet connection is must to upload and stream videos on demand.
- Searching option will be available for the user to find the video or movie they like.

User Interface Design

- The user interface will be simple and easy to understand.

- Videos similar to user's taste will be recommended automatically in the home page.
- Once they click on a video it plays in another page to provide immersive experience.
- Search box can be used to find the video of their taste.
- Trending videos will be put together for the users to know what other people like to watch.
- Playback controls like play, pause, skip back and forward, changing the speed of the video will be available.
- Ratings and reviews of the users will be collected to improve their experience.
- The videos users like can be put together into playlists for them to find it easily.

Video Upload

- Users can upload and view the status of their video on demand.
- They can upload the videos with a title and description.
- If any inappropriate contents or copyrighted contents are present in the video it will be filtered out.
- Any reviews or ratings on the video will be notified to the video creator.
- Different privacy settings will be provided for better privacy.

Streaming Integration

- Integrate IBM Cloud Video Streaming services to enable smooth video playback and streaming.
- Create an account in IBM Cloud Video Streaming and set up account settings.
- Obtain API keys for authentication for safe and secure content streaming, use it to create channels, uploading videos and managing live streams.
- Choose a compatible video player for IBM Cloud Video Streaming.

- Provides adaptive streaming by automatically adjusting the quality of video based on the viewer's internet connection, ensuring smooth viewing experience.
- Implementing real time analytics for tracking video performance, viewership to gain insights and improve user experience.

User Experience

- Videos with high audio and video quality and adaptive streaming will be provided to prevent buffering.
- User friendly video player with play/pause, skip forward/backward, volume adjustment, full screen mode options with smooth and uninterrupted playback will be available.
- Platform accessible to wide range of devices.
- Subtitles and captions will be provided for better user experience.
- Navigation and search tools for user's ease.
- Offline viewing and feedback mechanism to improve the platform.
- Regular updates and maintenance will be done to provide seamless and immersive experience for the user.