BUSINESS REQUIREMENTS

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| **Company Name**: BRIGHTCOM GROUP | **Date**: 06-06-2023 |
|  |  |
| **Project Name**: OTT PLATFORM | **Created By**: DEFENDERS |
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# Manager Approval and Project Status:

## Document Approval:

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| **Approver** | **Title** | **Approval Date** |
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**Revision History:**

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| **Date** | **Author** | **Version** | **Summary Of Changes** | **Approved By** |
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## Executive Summary

The purpose of this document is to define the business requirements for developing an Over-The-Top (OTT) platform. The OTT platform aims to provide users with a seamless and personalized streaming experience across multiple devices.

In today's digital age, the demand for streaming services has surged. The proposed OTT platform will not only meet this growing demand but also exceed user expectations by delivering a cutting-edge streaming experience. By offering a diverse catalog of high-quality video content, the platform will cater to a wide audience, ensuring maximum user engagement and satisfaction. This document will outline the business objectives, project scope, and key features of the OTT platform.

## Business Objectives

The primary objective of the OTT platform is to deliver high-quality video content to users, enabling them to access and consume a wide range of movies, TV shows, and other video content on-demand. [More business objectives...]

User Acquisition: Attract a large user base through effective marketing and user-friendly features.

Monetization: Generate revenue through subscription models, pay-per-view options, and advertising partnerships.

Content Partnerships: Collaborate with content providers and creators to ensure a diverse and up-to-date library.

User Engagement: Enhance user engagement through interactive features, social integration, and personalized recommendations.

Scalability: Build a platform that can scale seamlessly to accommodate a growing user base and content library.

## Project Scope

The scope of the project is to develop an Over-The-Top (OTT) platform that enables users to access and stream a wide range of on-demand video content across multiple devices. The platform will include features such as user registration and authentication, content management and categorization, personalized content recommendations, seamless content discovery and playback, payment and subscription management, social interaction features, analytics and reporting, and robust security measures. [More project scope details...]

## Requirements

* 1. **Hardware Requirements**
     1. Processor: i3, i5, i7 processor
     2. RAM: 8GB+
     3. Hard Disk: 200GB+

## Software Requirements

The OTT platform app will consist of the following major components:

* Front-end: Using HTML, CSS, BOOTSTRAP, JAVASCRIPT, responsible for rendering the user interface and handling user interactions.
* Back-end: Using PYTHON and DJANGO, responsible for handling user requests, managing the application logic, and interacting with the database.
* Database: MySQL will be used as the database to store user profiles, content metadata, and other related information

# Cost-Benefit Analysis

Implementing an OTT platform offers several cost benefits for businesses. Firstly, it eliminates the need for traditional broadcast infrastructure, which can be expensive to maintain and upgrade. Instead, content distribution can be done over the internet, reducing the costs associated with satellite or cable transmission. Additionally, an OTT platform allows for global reach, enabling businesses to target a wider audience without the expenses of setting up physical distribution networks. Furthermore, the platform enables personalized content recommendations, leading to increased user engagement and customer satisfaction, which can translate into higher customer retention and revenue. By leveraging cloud-based infrastructure, scalability can be achieved without significant upfront investment, allowing businesses to adapt to changing demands and avoid excessive infrastructure costs. Finally, the platform can provide valuable data analytics and insights, enabling businesses to make data- driven decisions and optimize content offerings, marketing strategies, and revenue generation. Overall, an OTT platform presents a cost-effective solution with the potential for increased revenue and improved operational efficiency.

1. **Features**

# Existing Features

1. User Registration and Authentication: Implement a secure and user-friendly registration and login system to create and manage user profiles.
2. Content Management and Categorization: Develop robust content management tools to upload, categorize, and organize video content efficiently.
3. Personalized Content Recommendations: Utilize algorithms and user data to provide personalized content recommendations, enhancing user engagement and retention.
4. Seamless Content Discovery and Playback: Design an intuitive and user-friendly interface for content discovery and playback across various devices.
5. Payment and Subscription Management: Enable users to subscribe, make payments, and manage their subscriptions seamlessly.
6. Social Interaction Features: Incorporate social sharing, commenting, and recommendation features to promote user interaction and content discovery.
7. Analytics and Reporting: Implement comprehensive analytics tools to track user behavior, content performance, and platform usage for data-driven decision-making.
8. Robust Security Measures: Ensure data security and content protection through encryption, DRM (Digital Rights Management), and authentication mechanisms.
9. By encompassing these features within the project scope, the OTT platform will be well-equipped to meet user expectations and thrive in the competitive streaming industry.

## Multilingual Content

The OTT platform should support multiple languages for content, including subtitles and audio tracks. Users should be able to select their preferred language for a seamless viewing experience.

Multilingual Content is a crucial feature for the OTT platform as it caters to a diverse audience. The platform should not only support multiple languages for content,but also provide a wide range of language options for subtitles and audio tracks. This inclusivity ensures that users from different linguistic backgrounds can fully enjoy the content.

Users should have the flexibility to easily switch between languages, whether they prefer watching in their native tongue or exploring content in a foreign language.

This feature enhances the global appeal of the platform and promotes a seamless viewing experience for all.

## Watchlist

Users should have the ability to create a personalized watchlist, where they can save content they are interested in watching later. This feature allows users to easily keep track of their favourite shows and movies.

The Watchlist feature adds a layer of personalization to the OTT platform. It allows users to curate their own collection of content they intend to watch in the future.

This feature is not just about convenience but also about engagement. Users can add their favorite TV shows, movies, or upcoming releases to their watchlist, making it a handy tool for keeping track of what's on their entertainment radar. It's like having a virtual library of entertainment at their fingertips, making it easier for users to plan their viewing schedule and discover new content that aligns with their interests.

## Search

The platform should provide a robust search functionality that enables users to quickly find specific content based on keywords, titles, genres, or other relevant criteria. The search feature should be efficient and accurate, delivering relevant results to enhance user experience.

Security is of paramount importance for any OTT platform. To protect user data, the platform must implement robust security measures. This includes secure authentication methods, data encryption both in transit and at rest, and adherence to industry best practices. By safeguarding personal information, payment details, and viewing history, the platform builds trust with users and ensures that their sensitive data remains confidential. Security measures should also include protection against unauthorized access, fraud prevention, and continuous monitoring to detect and mitigate potential threats.

## Security

The OTT platform must prioritize security measures to protect user data, including personal information, payment details, and viewing history. It should employ secure authentication protocols, encryption techniques, and follow industry best practices to ensure data privacy and prevent unauthorized access.

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## In-app purchases

The platform should support in-app purchases, allowing users to buy or rent additional content, such as movies, TV shows, or special events. This feature enhances monetization opportunities and provides users with a seamless transaction process within the platform.

In-app purchases are a valuable feature that enhances monetization opportunities for the OTT platform. Users should be able to seamlessly buy or rent additional content within the app. This feature not only generates revenue but also simplifies the transaction process, reducing friction for users. It may include options for purchasing individual movies, TV episodes, or accessing premium content packages. Offering a variety of purchase options can cater to different user preferences and encourage impulse buying.

## Payment integration

The OTT platform should integrate with various payment gateways to enable smooth and secure payment transactions. Users should be able to subscribe to premium content, purchase individual items, or set up recurring payments conveniently.

Payment integration is integral to the user experience on the platform. Users should have a hassle-free way to subscribe to premium content or make one-time purchases. The platform should support integration with multiple payment gateways, including credit cards, digital wallets, and other payment methods. Secure and user-friendly payment processing enhances user satisfaction and encourages users to make transactions confidently, contributing to the platform's revenue stream.

## Parental controls

To cater to a wide range of audiences, the platform should include parental control features. Parents or guardians should have the ability to set restrictions on content based on ratings, genres, or specific categories, ensuring a safe and appropriate viewing experience for younger audiences.

Parental controls are a vital feature to ensure that the platform caters to users of all ages. Parents or guardians should have the ability to set restrictions on the content accessible to younger audiences. This includes setting age-appropriate content ratings, genre filters, and even curating specific categories. Parental controls create a safer and more family-friendly environment, giving parents peace of mind that their children are viewing content suitable for their age and maturity level.

## Offline Viewing

The platform should allow users to download selected content for offline viewing. This feature enables users to enjoy their favourite shows and movies even when they don't have an active internet connection, improving convenience and flexibility.

The Offline Viewing feature is a game-changer for users who want flexibility in their viewing habits. It allows users to download selected content, such as movies or episodes, for offline viewing. This is particularly useful when users are traveling or in areas with limited or no internet connectivity. Users can pre-download their favorite shows and movies to enjoy them without interruptions. Offline Viewing enhances convenience and ensures that users can make the most of their subscriptions, even in non-ideal network conditions.

## Multiple Profiles

The OTT platform should support multiple user profiles within a single account. Each profile can have personalized settings, preferences, and watchlists, allowing different members of a household to have their own customized experience.

Supporting Multiple Profiles within a single account is an essential feature for households with multiple users. Each profile should be customizable, allowing individual users to set their preferences, create their own watchlists, and track their viewing history separately. This feature ensures that family members or roommates can have their own tailored experiences within the same account, preventing conflicts over content choices and maintaining a sense of personalization.

## Streaming Quality

The platform should offer different streaming quality options to accommodate varying network conditions and user preferences. It should automatically adjust the video quality based on the user's internet connection, ensuring a smooth and uninterrupted streaming experience. Additionally, users may have the option to manually select the streaming quality to suit their preferences.

The Streaming Quality feature is designed to optimize the viewing experience for users under varying network conditions. The platform should automatically adjust the video quality based on the user's internet connection to ensure uninterrupted streaming. Users should also have the option to manually select the streaming quality, whether they prefer high-definition for a cinematic experience or lower quality for data-saving purposes. This adaptive approach to streaming quality caters to diverse user preferences and network capabilities, offering a seamless and enjoyable viewing experience.

## Review Session (commenting and Liking)

This feature allows users to engage with the content by providing comments and expressing their likes or dislikes. Users can post comments, share their thoughts, and discuss the content with other users. Additionally, users can like or dislike specific content items, providing feedback and contributing to the overall user rating and recommendation system.

## Daily and Weekly Subscription Options

With this new feature, the OTT platform offers users the flexibility to subscribe to content on a daily or weekly basis, in addition to the traditional monthly or annual subscription options. This allows users who prefer short-term access or want to explore specific content for a limited period to have more choices and control over their subscription plans. The daily and weekly subscription options provide convenience and affordability for users with different viewing preferences and usage patterns.

**7.Flow Representation**

Creating a flow representation for an OTT (Over-The-Top) platform involves illustrating the sequential steps or processes involved in user interaction and content delivery. Below is a simplified flowchart representing the user journey on an OTT platform:

OTT Platform User Flow Representation

User Registration/Login:

User begins by registering for an account or logging in if already registered.

Home Screen:

Upon successful login, the user is directed to the profiles,After click on specific profile will go to home screen.

The home screen displays personalized content recommendations based on user preferences and viewing history.

Content Selection:

User browses through available content categories, such as movies, TV shows, documentaries, etc.

Content Details:

User selects a specific title to view more details.

Details include a brief description, cast, ratings, and related content.

Playback:

User initiates content playback by clicking the "Play" button.

The video starts streaming in high quality.

Playback Controls:

During playback, the user has control options:

Play/Pause

Forward/Rewind

Volume Control

Subtitle/Audio Language Options

Full-Screen Mode

Recommendations and Continuation:

After content completion, the platform suggests similar titles for the user's next selection.

Search Functionality:

Users can perform content searches by keywords, genres, actors, etc.

User Profile:

Users can access their profiles to:

Update account information.

View watch history.

Manage subscription settings.

Add to Watchlist:

Users can add content to their watchlist for later viewing.

Offline Download (Optional):

If available, users can download content for offline viewing.

Logout/Session End:

Users can log out or end their session.

Support and Help Center (Optional):

Access to FAQs, customer support, and help resources.

This simplified flowchart outlines the fundamental steps in a user's interaction with an OTT platform. In practice, OTT platforms may have more complex user flows, including payment processes, advertising integration, and social features. The specific flow can vary based on the platform's features and user interface design.

# Workflow Overview For OTT Platform

# 

Get Started

Forget Password

else

If login Success

Home Page

Open with existing profile or default profile

Add Profile

If required profile not exists

Profiles Page

SignIn

SignUp

**8.Technical requirements**

**Technical requirements for an OTT (Over-The-Top) platform involve the infrastructure, software, and hardware components needed to ensure reliable content delivery and a seamless user experience. Here are key technical requirements for an OTT platform:**

**Content Delivery Network (CDN):**

**A robust CDN is essential for efficient content distribution.**

**Multiple CDN providers may be used for redundancy and global reach.**

**Video Streaming Servers:**

**High-performance video streaming servers for encoding, transcoding, and delivering video content in various formats and bitrates.**

**Content Storage:**

**Scalable and redundant storage solutions for storing a vast library of multimedia content.**

**Integration with cloud storage services for cost-effective scaling.**

**Adaptive Bitrate Streaming (ABR):**

**ABR technology to adjust video quality based on users' internet connections.**

**Support for formats like HLS, DASH, and Smooth Streaming.**

**Cross-Platform Compatibility:**

**Compatibility with various devices and platforms, including web browsers, mobile apps (iOS and Android), Smart TVs, and streaming devices like Roku and Amazon Fire TV.**

**Content Protection and DRM:**

**Digital Rights Management (DRM) to protect copyrighted content.**

**Encryption and secure key management.**

**User Authentication and Authorization:**

**Secure login and authentication mechanisms.**

**Role-based access control for content.**

**Payment Gateway Integration:**

**Integration with payment gateways for subscription management and payment processing.**

**Content Management System (CMS):**

**A robust CMS for content ingestion, metadata management, and scheduling.**

**Bulk content upload and management tools.**

**Analytics and Monitoring:**

**Real-time monitoring of server performance, user engagement, and content delivery.**

**Analytics for user behavior, content popularity, and advertising effectiveness.**

**Scalability and Load Balancing:**

**Horizontal and vertical scalability to handle traffic spikes.**

**Load balancing to distribute user requests efficiently.**

**Content Recommendations and Personalization:**

**Machine learning algorithms for content recommendations based on user preferences and behavior.**

**Cross-Browser Compatibility:**

**Compatibility testing across multiple web browsers and versions.**

**Mobile App Development:**

**Native mobile app development for iOS and Android platforms.**

**Integration with app stores for distribution.**

**Smart TV and Streaming Device Support:**

**Custom apps for popular smart TVs and streaming devices.**

**Integration with app stores and marketplaces.**

**Content Search and Discovery:**

**Efficient search algorithms and recommendation engines.**

**Content categorization and tagging.**

**Content Monetization:**

**Ad insertion capabilities for ad-supported content.**

**Integration with ad networks and ad servers.**

**Offline Viewing (Optional):**

**Download feature for offline viewing on mobile devices.**

**Quality of Service (QoS) Monitoring:**

**Tools to monitor video quality, buffering, and user experience.**

**Troubleshooting and error reporting mechanisms.**

**Content Localization:**

**Support for multiple languages and subtitles.**

**Localization of metadata and user interfaces.**

**Accessibility Compliance:**

**Compliance with accessibility standards (e.g., WCAG) for users with disabilities.**

**Security Auditing and Penetration Testing:**

**Regular security audits and penetration testing to identify and address vulnerabilities.**

**Backup and Disaster Recovery:**

**Robust backup and disaster recovery plans to ensure minimal downtime.**

**APIs and Integration:**

**APIs for third-party integrations, such as social media, analytics, and advertising platforms.**

**Compliance and Licensing:**

**Compliance with legal and licensing requirements for content distribution.**

**User Support and Help Center:**

**Customer support tools and a help center to assist users.**

**These technical requirements form the foundation of a reliable and feature-rich OTT platform, enabling seamless content delivery and a positive user experience across various devices and platforms. Specific platform requirements may vary based on business goals, target audience, and regional considerations.**

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