MEDIA STREAMING WITH IBM CLOUD VIDEO STREAMING

**OBJECTIVE:**

The objective of this project is to create a robust and scalable media streaming platform using IBM Cloud Video Streaming. The platform aims to provide users with a seamless experience for uploading, managing, and streaming various types of media content, including videos, live broadcasts, and on-demand content.

**DESIGN THINKING PROCESS:**

* **Empathize**:

Conducted user interviews and market research to understand the needs and preferences of content creators and consumers in the media streaming industry.

* **Define**:

Identified key features such as video upload, live streaming, content categorization, user subscriptions, analytics, and monetization options.

* **Ideate**:

Brainstormed the user interface, content management workflow, and backend architecture to support the identified features.

* **Prototype**:

Created wireframes and interactive prototypes to visualize the platform's layout and user interactions.

* **Test**:

Conducted usability testing with potential users to gather feedback on the prototype and iteratively refine the design.

**Development Phases:Phase 1: Environment Setup and IntegrationTask:**  Provisioned the necessary resources and integrated IBM Cloud Video Streaming services.**Activities:**•Created an IBM Cloud account and provisioned the Video Streaming service.•Configured authentication and API access for media upload and streaming.**Phase 2: Core Feature DevelopmentTask:**

Developed the core features of the media streaming platform.**Activities**:•Implemented user authentication and profile management.•Created a media upload mechanism with support for various formats.•Integrated live streaming capabilities with real-time chat functionality.

**Phase 3: Content Management and AnalyticsTask:**

Provided tools for content creators to manage their media and gather insights.**Activities**:•Designed a content management dashboard for creators to upload, categorize, and schedule content.•Implemented analytics to track viewership, engagement metrics, and user behavior.**Phase 4: Monetization and Subscription ModelsTask:**

Added features for content monetization and user subscription options.**Activities**:•Integrated payment gateways for content purchases and subscriptions.•Developed a subscription management system for both creators and consumers.**Phase 5: Testing, Debugging, and OptimizationTask:**

Ensured the platform is stable, secure, and optimized for performance.**Activities**:•Conducted extensive testing, including load testing and security assessments.•Addressed and resolved any identified bugs or performance issues.**Platform Layout, Features, and Technical Implementation:Layout**:•Utilized a modern and intuitive interface for easy navigation and content discovery.•Implemented responsive design principles for optimal viewing on various devices.Features:•User authentication and profile customization.•Media upload, including videos, live broadcasts, and on-demand content.•Content categorization, search, and recommendation algorithms.•Real-time chat for interactive live streaming experiences.•Monetization options through subscriptions, pay-per-view, and ad integration.**Technical Implementation:**•Frontend: HTML5, CSS3, JavaScript (React.js).•Backend: Node.js, Express.js, MongoDB for data storage.•Video Streaming: IBM Cloud Video Streaming APIs.•Payment Integration: Stripe API for secure transactions.

