QUANTUM QUEST

C BYREGOWDA INSTITUTE OF TECHNOLOGY, KOLAR-563101

DEPARTMENT OF CSE

GROUP NAME: S4 SQUAD

DOMAIN: MEDIA & CONTENT

PROBLEM STATEMENT-2: Develop an AI-Powered Pre-Production Studio a unified web platform that helps creators organize research, auto-transcribe interviews, generate script suggestions, and maintain visual storyboards in one seamless interface.

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ABSTRACT:

This project introduces an AI-Powered Pre-Production Studio, a unified web platform for filmmakers and content creators. It streamlines research management, automatically transcribes interviews, provides AI-driven script suggestions, and enables interactive storyboarding. The platform supports real-time collaboration and includes genre-specific templates, helping users organize, create, and deploy pre-production workflows efficiently in a single, intuitive interface.

INTRODUCTION:

In the world of filmmaking and documentary creation, the pre-production phase plays a crucial role in shaping the final output. However, independent creators often face challenges due to the use of multiple disconnected tools — separate applications for note-taking, transcription, scriptwriting, and visual planning. This fragmented workflow makes organization difficult, consumes valuable time, and limits creativity.

To solve these challenges, the **AI-Powered Pre-Production Studio** introduces an all-in-one intelligent web platform that unifies every stage of pre-production under one system. The platform leverages the power of Artificial Intelligence to simplify complex tasks such as research organization, interview transcription, scriptwriting assistance, and visual storyboarding.

The system consists of four key modules:

- AI Research Hub, which collects and organizes research materials, automatically summarizes content, and tags resources using AI.
- AI Transcription System, which quickly converts audio or video interviews into timestamped and speaker-labeled transcripts with the help of speech recognition models.
- AI Script Editor, a smart writing environment offering AI-driven improvements in dialogue, pacing, and character consistency.
- **Digital Storyboard Creator**, which allows creators to visualize scenes through drag-and-drop layouts and AI-generated images.

By combining these advanced tools, the project aims to make pre-production more **efficient**, **organized**, **and creative**. It empowers filmmakers to focus on storytelling rather than technical complexity, ultimately transforming how ideas evolve from concept to screen.

DESIGN:

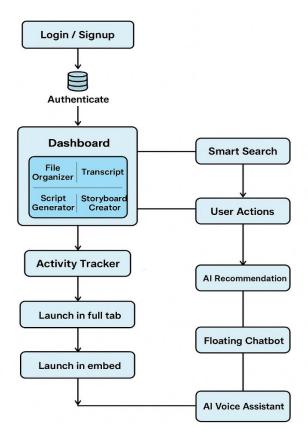


Figure: workflow of AI-Powered Pre-Production Studio

OUTCOME:

- A unified AI-powered web platform for filmmakers and creators.
- Helps to organize research materials in one place.
- Automatically transcribes video and audio interviews.
- Provides AI-based script suggestions for better writing.
- Offers an interactive storyboard to plan scenes visually.
- Enables real-time collaboration among team members.
- Makes the pre-production process faster, easier, and more organized