PROJECT ANALYSIS AND DESIGN
ARKANSAS FILM DATABASE

ARKANSAS ECONOMIC DEVELOPMENT GROUP
123 MAIN STREET
LITTLE ROCK, AR 72205

PROJECT MANAGER/DEVELOPER:
MELISSA ECKER

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INTRODUCTION

This project analysis and design document provides a detailed plan for the Arkansas Film Database project. It outlines the system objectives, requirements, architecture, and implementation strategy for a dynamic, interactive website that promotes films, actors, and actresses with verifiable ties to the State of Arkansas.

The Arkansas Film Database will be a standalone, client-side web application that retrieves real-time data from The Movie Database (TMDb) API. Users will be able to explore interconnected film and talent profiles, view detailed metadata, and navigate seamlessly between films and cast members. The system is designed as a proof-of-concept platform to demonstrate how Arkansas's film industry and talent can be showcased through a modern, interactive digital experience.

SYSTEM OVERVIEW AND OBJECTIVES

The objective of the Arkansas Film Database is to provide an engaging, user-friendly platform that highlights Arkansas's contributions to film and television. The system will allow users to browse and explore films, actors, and actresses connected to the state using real-time data retrieved from The Movie Database API.

The website will be designed for a general audience of movie enthusiasts, particularly ages 20–40, and will emphasize intuitive navigation, visual appeal, and interconnected content. Users will be able to click on a film to view its details, then navigate to cast members, and continue exploring related content dynamically.

The primary goals of the system are:

- To promote Arkansas's film industry and talent.
- To demonstrate real-time API integration in a dynamic web application.
- To provide reusable templates for films and people profiles.
- To deliver a functional proof-of-concept website suitable for future expansion.
- To enable tracking of Google analytics to gauge traffic and popularity.

SYSTEM REQUIREMENTS

Functional Requirements:

- The system shall display films, actors, and actresses associated with Arkansas.
- The system shall retrieve data dynamically from The Movie Database API.
- The system shall allow users to click on any film, actor, or actress to view detailed profile pages.
- The system shall display film details including budget, genre, synopsis, popularity, awards (when available), poster images, and taglines.
- The system shall display actor and actress biographies and filmographies.
- The system shall use client-provided JSON data to initialize API searches.
- The system shall use dynamic templates that adapt to varying data fields returned by the API.

- The system shall not require user authentication or login.

Non-Functional Requirements:

- The website should be intuitive and easy to navigate for general users.
- The interface should use a modern, visually appealing design appropriate for ages 20–40.
- The system should function correctly across all major web browsers.
- The system should load and display content efficiently.
- The system should not store personal user data.
- The system should allow the client to track traffic and popularity analytics
- The system should be maintainable and structured for easy future enhancements.

System Architecture and Design

The Arkansas Film Database will be implemented as a client-side web application using the following architecture:

- **Frontend:** HTML5, CSS, and JavaScript.
- **API:** The Movie Database (TMDb) API.
- **Data Handling:** JSON responses processed via JavaScript.
- **Templates:** Reusable dynamic templates for films and people profiles.
- **Deployment:** Static web hosting environment.

The system design will follow a modular structure, separating concerns between data retrieval, data processing, and user interface rendering. JavaScript functions will handle API requests, parse responses, and populate the appropriate templates dynamically.

The user interface will include:

- A main browsing or landing page featuring Arkansas-related films and talent.
- Film detail pages displaying metadata, images, and cast lists.
- Actor and actress profile pages displaying biographies and filmographies.
- Clickable links between films and people to enable seamless navigation.
- Responsive layout and modern styling for usability and visual appeal.

TESTING STRATEGY

The testing strategy will focus on validating both functionality and usability of the system. Testing will include:

- Verifying API authentication and endpoint responses from The Movie Database API.
- Testing JavaScript functions for correct data retrieval and error-handling.
- Ensuring dynamic templates correctly render varying data fields.
- Validating navigation between films and actor/actress pages.
- Cross-browser testing to confirm consistent behavior and layout.
- User interface testing to ensure clarity, responsiveness, and usability.

Any defects or data handling issues discovered during testing will be corrected prior to final deployment.

DEPLOYMENT/IMPLEMENTATION PLAN

The implementation of the Arkansas Film Database will follow these steps:

- Design the user interface and overall site layout.
- Develop the front-end structure using HTML5 and CSS.
- Implement JavaScript logic for API integration and data handling.
- Integrate The Movie Database API and validate endpoints.
- Build and refine dynamic templates for films and people profiles.
- Conduct system testing and debugging.
- Finalize user interface styling and responsiveness.
- Deploy the proof-of-concept website.
- Prepare documentation and final presentation/demo.

CONCLUSION

The Arkansas Film Database project delivers a modern, interactive proof-of-concept platform that supports the Arkansas Economic Development Group's goal of promoting the state's film industry and creative talent. By leveraging real-time data from The Movie Database API and presenting it through a user-friendly, visually engaging interface, the system demonstrates how digital tools can enhance cultural and economic outreach.

This project not only highlights Arkansas's contributions to film and television but also establishes a scalable technical foundation for future expansion and enhancement.

APPROVAL
Approved by the Project Sponsor:

_____ Date: _____
Bruce Bauer
Arkansas Economic Development Group