

## INTRODUCTION

The project aims to develop a comprehensive online platform that provides movie recommendations, booking services, and seamless movie streaming to users. The system will leverage advanced recommendation algorithms to personalize the user experience, simplify the booking process for movie tickets, and offer smooth, high-quality streaming for on-demand content. This platform will cater to the needs of movie enthusiasts by integrating multiple services into a single, user-friendly interface.

### REQUIREMENT ANALYSIS

FUNCTIONAL REQUIREMENTS

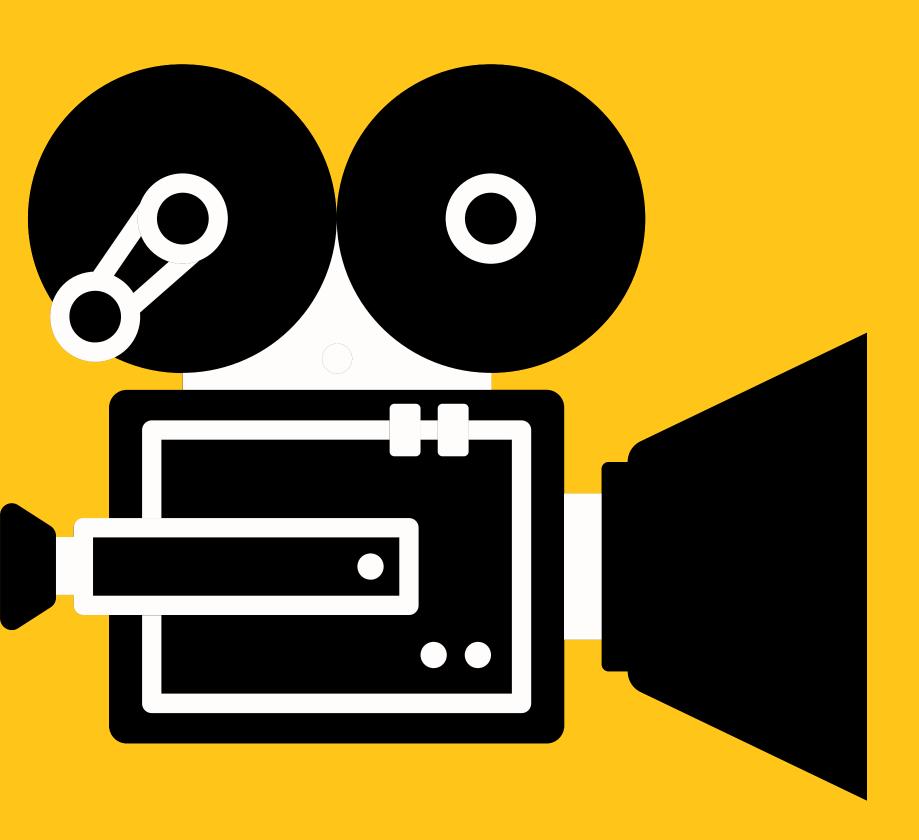
- USER MANAGEMENT
- MOVIE RECOMMENDATION SYSTEM
- MOVIE BOOKING SYSTEM
- STREAMING SYSTEM
- REVIEW AND RATING SYSTEM

NON-FUNCTIONAL REQUIREMENTS

- PERFORMANCE
- SCALABILITY
- SECURITY
- USABILITY



## PROCESS MODEL



#### AGILE DEVELOPMENT MODEL

- SPRINT PLANNING
- DESIGN & PROTOTYPING
- DEVELOPMENT PHASES
- TESTING
- DEPLOYMENT

## TECHSTACK



#### **FRONTEND**

HTML5, CSS3, JavaScript React.js or Angular.js



#### **BACKEND**

Node.js with Express.js or Django/ Flask Python



#### **DATABASE**

MongoDB



#### **STREAMING**

Google cloud storage



#### **PAYMENT GATEWAY**

Stripe or PayPal



#### **DEPLOYMENT & HOSTING**

AWS (EC2, S3, RDS) or Google Cloud Platform CI/CD pipeline using Jenkins or GitLab CI/CD

#### Effort Estimation (Minimized for a Team of 4 Developers):

The goal is to break down the effort estimation into specific tasks and allocate them efficiently, considering that you have a crew of 4 developers. To minimize the overall time and effort, we'll make sure tasks are divided evenly and leverage reusable components, frameworks, and automation tools.

Task	Effort (Person- Hours)	Task Distribution	Estimated Time Frame
UI/UX Design - Wireframes - UI Design - Prototyping & User Testing	80 20 40 20	1 Developer	3 Weeks
Frontend Development - Framework Setup (React/Angular) - Components & Layouts - Integration with APIs - Responsiveness & PWA	240 30 100 40 70	2 Developers	6 Weeks

Backend Developm  - User Authent - Movie Book System - Recommend Engine - Streaming St	ent tication king dation dervice on iteway	300 40 60 80 80 40	2 Developers	6 Weeks
Recommend Engine - Data Proces ML Mode - Integration Testing	sing & Is on &	100 60 40	1 Developer (Backend)	4 Weeks

Streaming Module  - Video Processing    & Storage  - Adaptive Bitrate    Streaming    - CDN Setup	160 80 40 40	2 Developers	4 Weeks
Testing & QA - Unit Testing - Integration     Testing - UAT & Bug Fixes	120 40 40 40 40	1 Developer (QA Focused)	4 Weeks

Deployment & Maintenance - Cloud Setup (AWS, GCP) - CI/CD Pipeline	60 30 30	1 Developer	2 Weeks
Total Effort (Person- Hours)	1060 hours		~ 12 Weeks (3 months)

#### INFRASTRUCTURE COSTS (CLOUD AND STREAMING):

TO MINIMIZE COSTS, WE CAN USE SCALABLE CLOUD SERVICES WITH PAY-AS-YOU-GO PRICING MODELS.

Task	Total Person-Hours	Cost (at \$30/hour)
UI/UX Design	80	\$2,400
Frontend Development	240	\$7,200
Backend Development	300	\$9,000
Recommendation Engine	100	\$3,000
Streaming Module	160	\$4,800
Testing & QA	120	\$3,600
Deployment & Maintenance	60	\$1,800
Total Cost (Labor)	1060 hours	\$31,800

Service	Estimated Cost/Month	Duration	Total
Cloud Hosting (AWS/GCP)	\$500	3 months	\$1,500
CDN for Streaming (AWS CloudFront)	\$200	3 months	\$600
Video Storage (S3/Google Storage)	\$200	3 months	\$600
Payment Gateway Fees (Stripe/PayPal)	\$100	-	\$100
Total Infrastructure Costs			\$2,800

#### **CONTINGENCY & MISCELLANEOUS:**

IT'S WISE TO ALLOCATE AROUND 10% OF THE TOTAL BUDGET FOR UNFORESEEN ISSUES,

MAINTENANCE, OR ADDITIONAL TOOLS.

CONTINGENCY (10%)

\$3,180

# Total Estimated Cost: Component

Cost Labor \$31,800

Infrastructure \$2,800

Contingency (10%) \$3,180

**Total Cost:** \$37,780



## CONCLUSION



The proposed online movie recommendation, booking, and streaming platform will provide a seamless experience for users, integrating multiple services into one unified interface. By utilizing scalable technologies and an agile development process, the platform will offer real-time recommendations, smooth video streaming, and convenient movie booking. With clear phases, effort, and cost estimation, this project is positioned to meet both business and user expectations efficiently.



# THANK YOU!