MOODFLIX

SOFTWARE DEVELOPEMENT LIFE CYCLE

Read More

OUR AGENDA

Planning 01

Requirements 02

Design 03

Developement 04

Testing 05

Deployment 06

Maintenance 07

PLANNING

Choices / Theories Learned

- Planning Phase – Key Points
- Define app scope & goals
- Check feasibility (tech, cost, operations)
- Gather requirements early
- Identify & plan for risks
- Choose methodology: Waterfall vs Agile
- Plan resources & timeline

Our Choice / Application

- Scope & Goal: Mobile app recommends movies based on mood
- Feasibility: Prototype-first, no heavy backend needed initially
- Requirements: Core features: mood selection, movie database, search, favorites
- Project Management: Agile/Scrum-lite with short iterations
- Resources: Figma for design, small mobile friendly design, free movie data sets, small team

Reason for Our Choice

- Clear scope avoids feature creep
- Prototype-first validated idea quickly & cheaply
- Agile allowed easy feedback-driven changes
- Lightweight tools kept costs and complexity low

REQUIREMENTS

Choices / Theory Learned

- Gather functional and non-functional requirements from stakeholders (users, developers, business team).
- Use interviews, surveys, and observation to understand user moods and preferences.
- Prioritize requirements using MoSCoW method (Must have, Should have, Could have, Won't have).

Reason / Justification

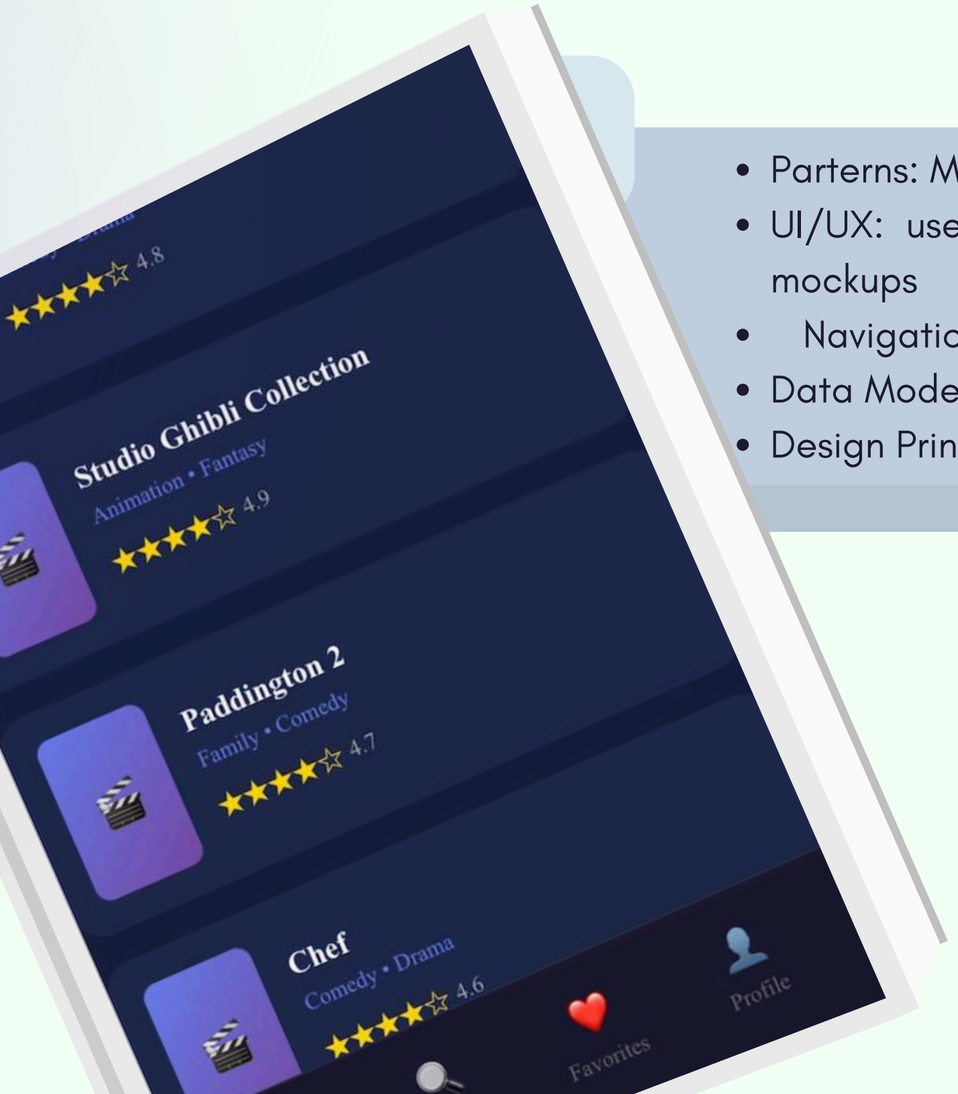
- Ensures MoodFlix addresses real user emotions effectively.
- Reduces development risk by clarifying requirements upfront.
- Supports delivering a satisfying, stress-free movie experience tailored to users' feelings.

Chosen Approach / Application

- Applied user-centered analysis to focus on emotional-based recommendations.
- Created user personas to capture specific needs.
- Defined core features: mood detection, personalized movie suggestions, seamless UX.

DESIGN

Overview

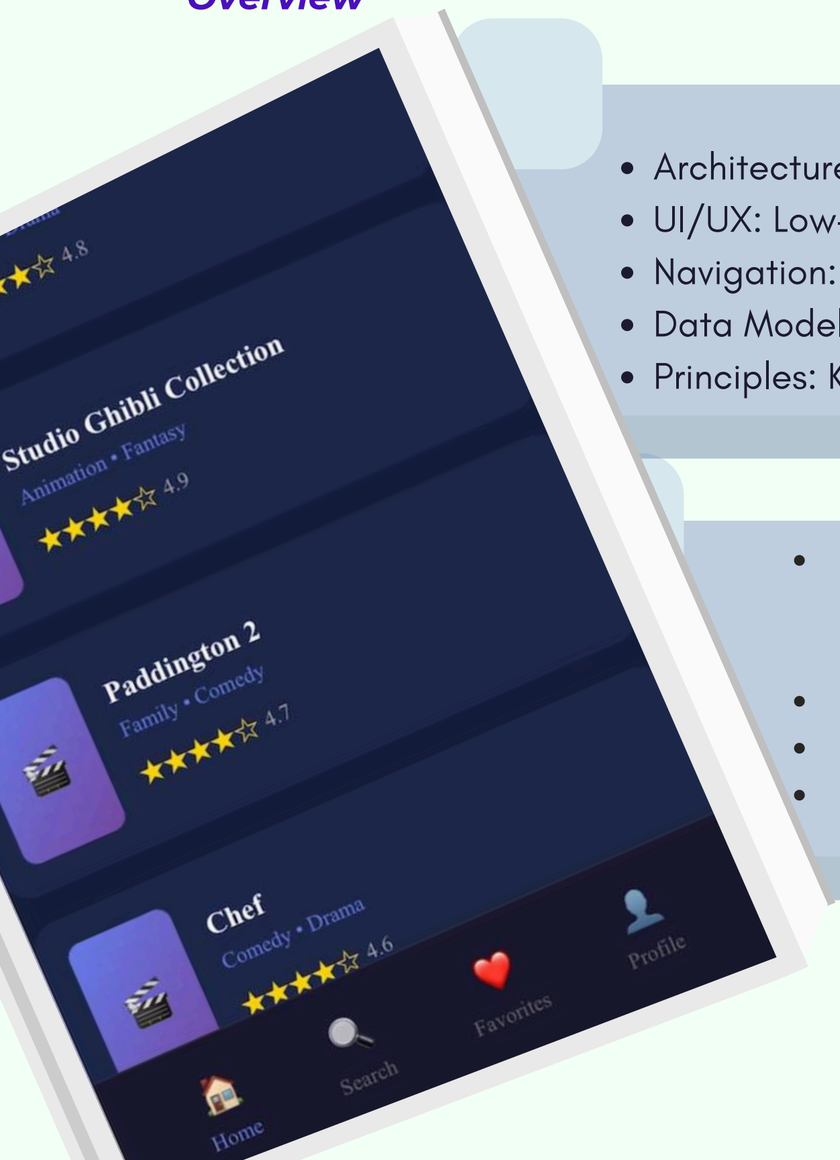


Choices and Theories:

- Parterns: MVC, MVVM, layered
- UI/UX: user-centered Design, wireframes, high-fidelity mockups
- Navigation Partterns: Bottom Bar vs Hamburger menu
- Data Model: Relational VS NoSQL
- Design Principle: SOLID, KISS, DRY, accessibility

DESIGN

Overview

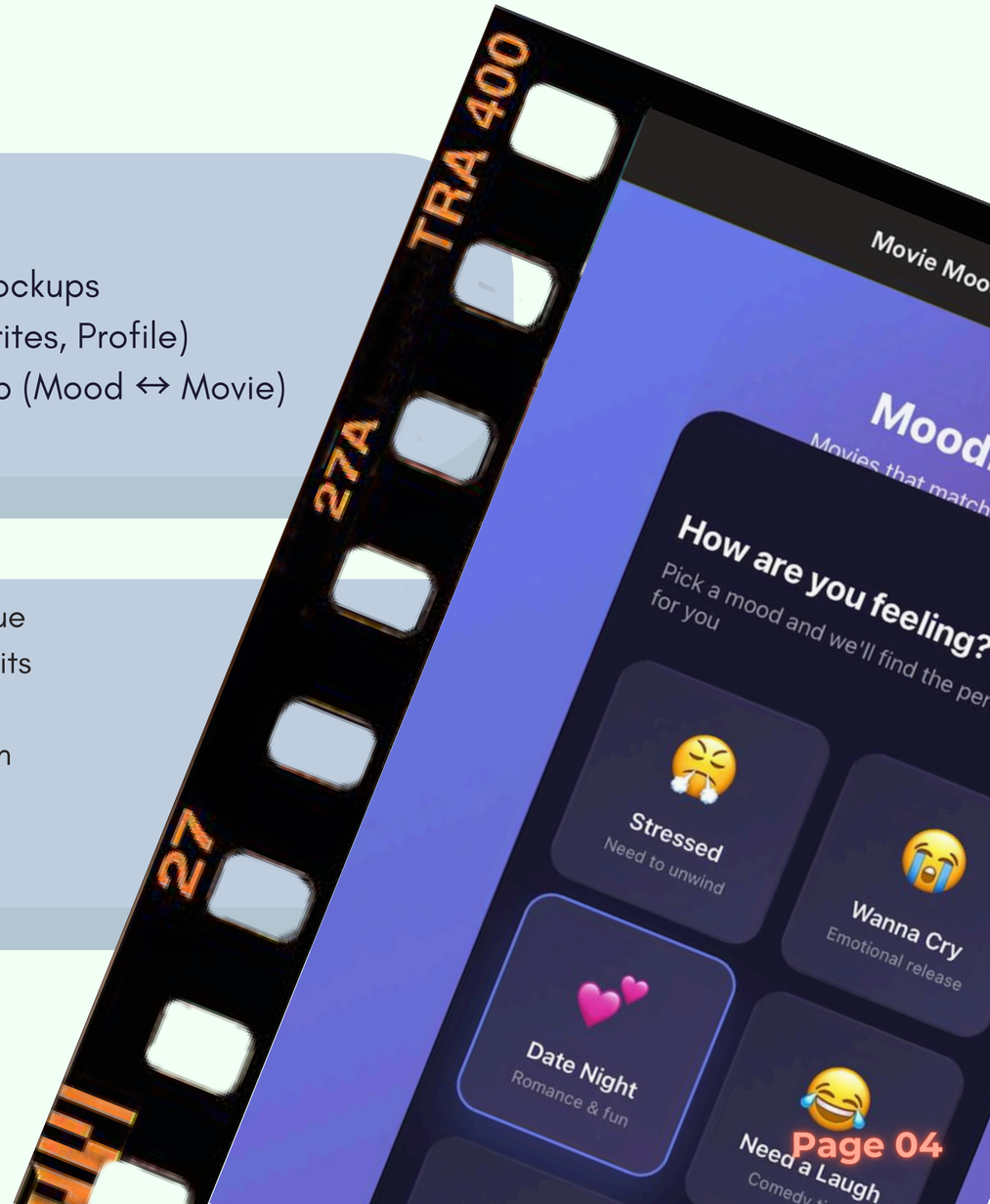


Our Application

- Architecture: MVC pattern
- UI/UX: Low-fidelity wireframes → high-fidelity Figma mockups
- Navigation: Bottom navigation bar (Home, Search, Favorites, Profile)
- Data Model: ER diagram with many-to-many relationship (Mood ↔ Movie)
- Principles: KISS for simplicity, SOLID for maintainability

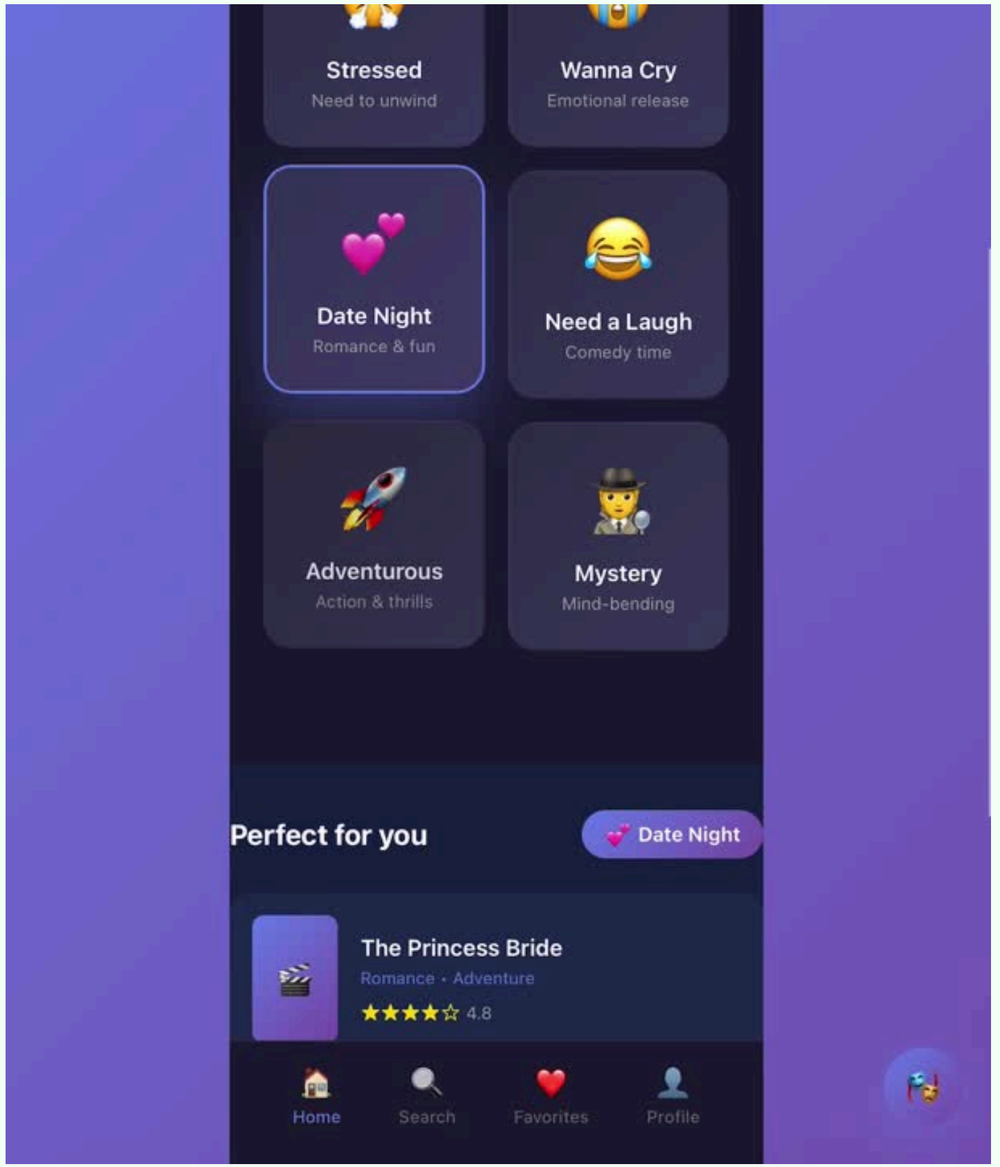
Why?

- User-first experience: Clean dark purple UI (unique creativity and mystery) with bright emoji buttons fits the cinema vibe
- Scalability: MVC enables easy feature expansion
- Familiar navigation lowers learning curve
- Data integrity ensures reliable mood-to-movie matching



DESIGN

Overview



DEVELOPEMENT

Choices / Theory Learned

- During SDLC development, key choices include programming languages, frameworks, database systems, and integration methods.
- Theory emphasizes using the most suitable technology to meet functional and non-functional requirements.
- Agile development principles allow iterative coding, continuous testing, and user feedback integration.

Application / Choice for MoodFlix

- We chose React for front-end, Node.js for back-end, and MongoDB for the database to support real-time mood-based recommendations.
- Implemented modular code structure to handle dynamic movie suggestions based on user emotions.
- Continuous testing ensured the recommendation system aligns with moods: 💔, 😂, 😴, 😡.

Reason / Why

- These choices enhance flexibility, scalability, and user experience.
- Agile approach allows quick adjustments to improve emotional accuracy of movie recommendations.
- Goal: Watching a movie feels effortless, fun, and emotionally “just right”.

TESTING

Choices / Theory Learned

- We learned about various testing methods: unit testing, integration testing, system testing, acceptance testing, and usability testing.
- Each method ensures software quality at different levels: functionality, performance, and user experience.

Application / Chosen Approach

- For MoodFlix, we applied system testing and user acceptance testing (UAT).
- System testing ensures that the mood-based recommendation algorithm correctly matches movies to user emotions.
- UAT involves real users interacting with the app to confirm it delivers a seamless, intuitive, and satisfying movie selection experience.

Reason / Why

- Testing at both system and user levels guarantees that MoodFlix works reliably under various scenarios.
- Ensures users receive accurate recommendations that align with their emotional state, enhancing satisfaction and engagement.
- Reduces the risk of errors before the final launch, ensuring a high-quality product.

DEPLOYMENT

Choices / Theories Learned

- Centralized Portal Approach - A single official app store, like Apple's App Store or Google Play, where most apps are published.
- Decentralized Portal Approach - Developers can publish apps on multiple independent portals, offering flexibility but less control.
- Open-source platforms (e.g., Android, Symbian) allow more developer freedom. Closed platforms

(e.g., iOS) require strict approval and control by the platform provider.

Application / Chosen Approach

We choose the Centralized Portal Approach (e.g., deploying through the Google Play Store or Apple App Store). To do this:

- Register as a developer on the chosen platform and pay the annual fee.
- Carefully review and comply with all app store policies.
- Optimize the app by cleaning up code and removing logs or unnecessary files.
- Prepare high-quality visual assets, including the app icon and store screenshots.
- Package the application in the required format (.apk for Android or .ipa for iOS).
- Upload the application to the centralized portal and complete the required metadata such as app description, category, and pricing.
- Launch the app and monitor performance metrics using the app store dashboard.

Reasons

- Wider reach: access to millions of global users
- Trust & Security: Verified apps gain user confidence.
- Simplified Process: Handles billing, updates, and distribution.
- Built-in Promotion: Ratings and featured sections boost visibility.
- Data Insights: Provides analytics for future improvements.

MAINTENANCE

Choices / Theories (Models of Maintenance)

- Emergency-Oriented Maintenance → Fix urgent bugs/crashes.
- Feature-Oriented Maintenance → Frequent new features + stability.
- Constant Maintenance → Regular, short-cycle updates, focus on process discipline.
- (Also covers Corrective, Adaptive, Perfective, Preventive maintenance types).

Chosen Model / Application

- Constant Maintenance
- Apply short iterations (10–20 days).
- Regular bug fixes, improvements, and security patches.
- Add new features occasionally when user demand arises.
- Use Agile methods for flexibility.

Why This Choice?

- Balances stability and adaptability.
- Enhances user satisfaction with continuous improvements.
- Maintains market competitiveness with timely updates.
- Supports Agile principles for fast response to change.

THANK YOU

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