Movie Matchmaker

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Ctec-295 Software Development

Project Objective

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| Presentation with checklist with solid fill | In this course, you and a small group of your peers will be building a software project to solve some problem.  What that problem is, however, is up to you.  Create a document that describes a project you'd like to work on, covering the following details:   * The Elevator Pitch   + A one-paragraph description of the project that condenses it down to something easily understood   + It should be short enough but descriptive enough that you could describe it to someone in the amount of time it takes to ride an elevator with them completely understanding what you want to accomplish * Why you are interested in this project * Why you believe you could complete this project in 8 weeks   + Provide details.  For example, write out a timetable including all the problems you expect to face and how long it would take to solve each one. * What tools / experience you already have that would help you build this project * What tools / knowledge you would need to learn / research to build this project |

# The Elevator Pitch

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**Are you tired of endlessly scrolling through streaming services, trying to find a movie or show that everyone in your group will enjoy?**

**Introducing Movie Matchmaker**, the app designed to streamline your movie nights. With Movie Matchmaker, users can link their streaming service accounts and create lists of movies they would like to watch. The app then compares these lists, highlighting movies and shows that you and your friends or loved ones have in common. This way, you can easily select from a curated list, simplifying decision-making, reducing stress, and allowing you to spend more time enjoying your favorite films and shows.

Whether you are planning a cozy night with family, or a fun filled evening with friends, **Movie Matchmaker ensures everyone gets to watch what they love!**

# Why This Project?

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1. **Solves a Common Problem:** The app addresses a widespread issue many people face, finding a movie or show that everyone in a group wants to watch. It is a practical solution that makes movie nights more enjoyable.
2. **User Friendly:** Movie Matchmaker’s easy-to-use interface and ability to link multiple streaming accounts ensure that everyone’s preferences are considered, promoting a positive experience.
3. **Time and Stress Saver:** By curating a list of common items, the app significantly reduces the time spent scrolling through endless options. This means less stress and more time spent enjoying movie night.
4. **Innovative Use of Technology:** The project leverages modern technology to enhance social activity. We will incorporate algorithms to match users’ interests and provide a more efficient, and personalized, movie selection process.
5. **Market Potential:** There is a growing demand for apps that simplify entertainment choices. With the rise of various streaming services, Movie Matchmaker has the potential to become a popular tool for households and friends worldwide.
6. **Educational Value:** Working on this project will provide valuable experience in app development, user interface design, and integration with streaming services. It is an excellent opportunity for hands-on learning in a real-world context.
7. **Engaging and Fun:** Beyond its practicality, this project is for enjoyment! It encourages social interaction and shared experiences.

By choosing Movie Matchmaker, we will be working on a project that is innovative, will be a great learning experience, and may have significant market potential.

# Project Achievables and Timeline

**Week 1: Initial Research and Planning (10 hours)**

* **Tasks**:
  + Research similar apps and market needs (4 hours).
  + Define project requirements and features (2 hours).
  + Create a detailed project plan and timeline (2 hours).
  + Setup version control and project management tools (2 hours).
* **Expected Problems**:
  + Determining the most relevant features to include.
  + Defining the target user demographic.

**Week 2: Designing the User Interface (UI) (10 hours)**

* **Tasks**:
  + Create wireframes and mockups for the app (5 hours).
  + Review and iterate on design based on feedback (2 hours).
  + Finalize the UI design (3 hours).
* **Expected Problems**:
  + Ensuring the design is user-friendly and intuitive.
  + Balancing aesthetics with functionality.

**Week 3: Setting Up the Backend (15 hours)**

* **Tasks**:
  + Set up the server and database (5 hours).
  + Develop API endpoints for user accounts, movie lists, and streaming service integration (5 hours).
* **Expected Problems**:
  + Integrating with multiple streaming services.

**Week 4: Developing Core Features (15 hours)**

* **Tasks**:
  + Implement movie list creation and management (5 hours).
  + Develop the algorithm for comparing movie lists and making comparisons (5 hours).
  + Integrate streaming service APIs (5 hours).
* **Expected Problems**:
  + Handling discrepancies between different streaming service APIs.
  + Ensuring accurate and efficient recommendation generation.

**Week 5: Frontend Development (15 hours)**

* **Tasks**:
  + Develop the frontend based on the finalized UI design (10 hours).
  + Implement user interactions and data display (5 hours).
* **Expected Problems**:
  + Ensuring a responsive and smooth user experience across different devices.
  + Debugging UI/UX issues.

**Week 6: Testing and Bug Fixing (15 hours)**

* **Tasks**:
  + Conduct unit tests for backend and frontend components (5 hours).
  + Perform integration tests to ensure all parts work together seamlessly (5 hours).
  + Fix bugs and refine features based on test results (5 hours).
* **Expected Problems**:
  + Identifying and resolving edge cases.
  + Ensuring comprehensive coverage of tests.

**Week 7: Quality Testing and Final Changes (10 hours)**

* **Tasks**:
  + Perform user acceptance testing (UAT) with a small group of users (5 hours).
  + Gather feedback and make necessary adjustments (3 hours).
  + Conduct final round of testing to ensure app stability (2 hours).
* **Expected Problems**:
  + Addressing user feedback efficiently.
  + Ensuring no critical issues remain.

**Week 8: Deployment and Launch (10 hours)**

* **Tasks**:
  + Prepare deployment infrastructure and documentation (3 hours).
  + Deploy the application to web hosting (3 hours).
  + Monitor the app post-launch for any immediate issues (4 hours).
* **Expected Problems**:
  + Managing a smooth deployment process.
  + Addressing any post-launch issues quickly.

# Experience and Tools Required For Build

I bring valuable experience that will contribute significantly to the success of the Movie Matchmaker project. I have firsthand experience working with API calls, which will be essential for integrating various streaming services and ensuring seamless data retrieval. Additionally, I have basic experience with database management, which will aid in effectively storing and handling user data and movie lists. My background in web design ensures that the app will not only be functional but also visually appealing and user-friendly.

# Additional Knowledge and Tools for Success

For the Movie Matchmaker project, there are several areas of knowledge that would be beneficial to research more to successfully build the application. Advanced API integration is crucial for linking multiple streaming services, and tools like Postman will aid in testing.

Database management skills, including concepts like normalization and efficient query optimization, will be essential, with tools such as MongoDB being highly relevant. Backend development with frameworks like Node.js, Django, or Flask will also be important. Improving frontend development capabilities with modern frameworks like React, will ensure a responsive and user-friendly interface. Focusing on responsive design and user experience (UX) will be beneficial, utilizing tools like Figma, Adobe XD, and CSS frameworks like Bootstrap or Tailwind CSS.

Effective project management and collaboration are crucial, with GitHub for version control, a project management app could be beneficial, and Discord or Slack for communication. Finally, understanding testing methodologies and tools for frontend and backend testing will be essential to ensure application quality assurance.

# Conclusion

In conclusion, I believe we can successfully complete Phase 1 of the Movie Matchmaker project within 8 weeks. Positive initial results will pave the way for Phase 2, enhancing the application's features and reach. Let's work together to make movie nights fun again!