Introduction to Software Engineering ECCE 336

Online Software System for Movies

Feasibility Study

Done By:
- ***Alanood Alqaydi 100060365***
- ***Sultan Alshehhi 100060746***

I. Introduction

In this project, we aim to create a system that allows customers to find out what movies are available for sale online. The software system will serve as a comprehensive online database, containing information about movies themselves, their associated actors, directors, and other relevant data. The project deadline is July 12th, 2023. This report shows a feasibility analysis.

II. Project Scope

Objectives:

The project aims to provide details about movies, actors, and actresses, the system will serve as a centralized database. Within the scope of the project are the following key features and functionalities: Movie Information, Actor and Actress Information, Movie Studio Information, Producer Information and Director Information.

Goals:

The suggested software system seeks to deliver comprehensive movie information through a user-friendly interface. It will enable efficient navigation, advanced search, and filtering capabilities, scalability for future enhancements, and meet evolving customer needs and industry trends.

Deliverables:

1. **Functional software system:** The project should deliver a fully functional online software system.
2. **User interface design:** design and implementation of an intuitive and user-friendly interface.
3. **Database implementation:** The project should involve the development and integration of a database system.
4. **Search and filtering functionalities:** The software system should incorporate advanced search and filtering.
5. **Documentation and support:** comprehensive documentation, including user manuals and technical documentation. Ongoing support should also be provided.

III. Stakeholders

The project will affect various stakeholders in the movie industry. Their requirements and expectations are as follows:

1. **Client:** Expect a software system that will improve their movie production business and drive substantial revenue growth.
2. **Customers (users):** Expect easy access to comprehensive movie information, user-friendly navigation, advanced search options, personalized recommendations, and smooth purchasing.
3. **Movie Studios:** Expect dedicated promotion pages and high-quality media content.
4. **Producers and Directors:** Require tools for managing production progress and accurate filmography representation.
5. **Actors and Actresses:** Expect accurate representation of filmography, roles, and accomplishments.
6. **Software developers:** Require efficient database management, scalability, and integration capabilities.
7. **Development Managers:** Engaging with these stakeholders will ensure that the system meets their needs and adds value to the movie industry ecosystem.

IV. Market Analysis

The online movie database market is experiencing rapid growth as more people are using these systems to search for and access movie information. As the market expands, competition among companies offering online movie databases is also on the rise. While existing databases like IMDB and Rotten Tomatoes are available, they come with certain limitations. IMDb relies on user-generated content, leading to varying information quality, while Rotten Tomatoes is critic-driven and may not cater well to casual moviegoers.

To address these gaps in the market, a proposed online movie database aims to provide a high-quality and user-friendly platform for movie and actor/actress information. This system will cater to a diverse range of users, including casual moviegoers, movie buffs, and industry professionals.

V. Technical Feasibility Analysis

The technical feasibility of the project is high. The system will be developed using Java IDE and MySQL, which are popular and well-suited for developing web applications. The required hardware and software for the project are readily available, and the skills and resources needed for development are also readily accessible. The system will utilize a MySQL database for information storage. The software will be programmed using the Java language. Moreover, the dataset will be adapted from the Kaggle website. The following hardware and software requirements must be met to build an online movie system:

- **Hardware:** A server or computer with sufficient processing power, memory, and storage capacity to host the software and database such as a personal computer.
- **Software tools/packages:** a relational database management system such as MYSQL, Eclipse IDE, and Kaggle website.
- **Programming languages:** Java (Primary), and JavaScript.

VI. Financial Analysis

- **Cost of development:** The cost of developing the software system is estimated to be $100,000. This includes the cost of software development, testing, and deployment.
- **Cost of delivery:** The cost of delivering the software system to the client is estimated to be $50,000. This includes the cost of hardware, software licenses, and training.
- **Expected ROI:** The expected ROI for the project is estimated to be $200,000. This is based on the assumption that the software system will be used by 10,000 users and that each user will pay $20 per year for the service.

The total cost of the project is $150,000 and the expected ROI is $200,000, so the project is expected to be profitable.

VII. Legal & Regulatory Analysis

The proposed online movie information system will need to comply with a number of legal and regulatory requirements, including intellectual property laws and data privacy regulations. Here are some specific examples of legal and regulatory requirements that may impact the project:

- **Copyright law:** The system will need to obtain the necessary licenses and permissions to use copyrighted material, such as movie trailers and posters.
- **Data privacy regulations:** The system will need to implement appropriate data privacy measures to protect the personal information of users. This includes obtaining consent from users before collecting or using their personal information, and providing users with the ability to access, correct, or delete their personal information.

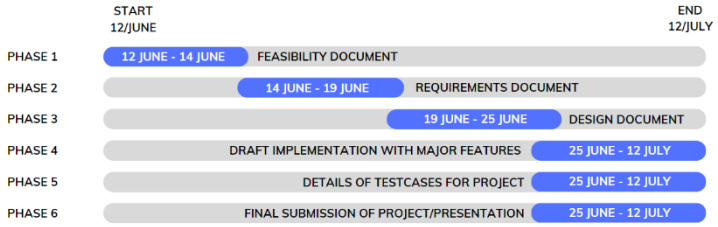
The system will also need to comply with other applicable laws and regulations, such as those governing advertising, and taxation.

VIII. Risk Assessment

- **Risks:**
  - The project may not meet all of the client's requirements.
  - The software may have technical problems, such as bugs, crashes, or glitches.
  - Data related to the software may not be secure enough or may be lost.
  - The project may not be completed on time.
- **Mitigation:**
  - Use the evolutionary development model to ensure that all of the client's requirements are met.
  - Follow the incremental development approach to allow the client to test their prioritized components.
  - Protect data by using encryption algorithms and authentications.
  - Test all possible cases after finishing each part of the project and perform a "stress test" at the end.

  By taking these steps, software development projects can be completed more successfully.

IX. Project Timeline



X. Recommendations

Based on the results of the feasibility study, it is recommended that the project proceed. The project has a high likelihood of success and the potential rewards outweigh the risks. The following action plan will be used to implement the project:

1. Develop a detailed project plan.
2. Acquire the necessary hardware and software.
3. Design the system.
4. Develop the system.
5. Test the system.
6. Deploy the system.
7. Market and promote the system.