Group Project Documentation   
Basic Cross-Platform Application Programming with .NET

*Movie Theater Management*

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# Project Introduction

## Product Perspective

The product perspective of the movie theater system management project is to provide a software solution that can streamline and enhance the operations and transactions of a movie theater business. The product will be a web-based system that can be accessed by the theater staff and customers through any device with an internet connection. The product will integrate with the existing hardware and software systems of the theater, such as the ticketing machines, projectors, speakers, and accounting software. The product will also interface with external systems, such as the movie distributors, payment gateways, and social media platforms. The product will offer various features and functionalities that can improve the efficiency and effectiveness of the theater management, such as:

* Movie scheduling: The system will allow the theater staff to create and update the movie schedules for each screen and date. The system will also display the movie schedules to the customers on the website and mobile app.
* Ticket pricing: The system will allow the theater staff to set and modify the ticket prices for each movie, screen, date, and time. The system will also apply discounts and promotions based on predefined rules and criteria.
* Seat availability: The system will track and update the seat availability for each movie show in real time. The system will also show the seat maps to the customers on the website and mobile app.
* Ticket booking: The system will enable the customers to book tickets online through the website or mobile app. The system will also allow the customers to choose their preferred seats, pay securely online, and receive confirmation emails and SMS.
* Ticket cancellation: The system will enable the customers to cancel their tickets online through the website or mobile app. The system will also refund the payment and update the seat availability accordingly.
* Report generation: The system will generate various reports and dashboards for the theater management to monitor and evaluate the performance and revenue of the theater. The system will also provide insights and recommendations for improving the theater business.

The product vision of the movie theater system management project is to become a leading software solution that can help movie theaters to optimize their operations and transactions, increase their customer satisfaction and loyalty, and grow their market share and profitability.

## User Classes and Characteristics

*<You should mention the important issue; other detailed information can be presented in the form of Business rules.>*

*<Identify the various user classes that you anticipate will use this project and describe their pertinent characteristics. Some requirements might pertain only to certain user classes.>*

# Database Design

*<A data model is a visual representation of the data objects and collections the project will process and the relationships between them. Include a data model for the business operations being addressed by the system, or a logical representation for the data that the system itself will manipulate.*

*Data models are most commonly created as an entity-relationship diagram.>*

# System Architecture

*<Describe the environment in which the project will operate, including the hardware platform; operating systems and versions; geographical locations of users, servers, and databases; and organizations that host the related databases, servers, and websites.>*

*<A detailed description of how you design the system. You should provide your understanding of your architecture and how your application implemented. The diagrams (eg UML: deployment diagram, class diagrams) should be provided if necessary.>*

*<A detailed description of any new technologies you find out (not in school) to develop applications.>*

# Implementation

## Deployment Considerations

*<Summarize the information and activities that are needed to ensure an effective deployment of the solution into its operating environment.>*

*<Describe the access that users will require to be able to use the system, such as whether the users are distributed over multiple time zones or located close to each other. State when the users in various locations need to access the system. If infrastructure changes are needed to support the software’s need for capacity, network access, data storage, or data migration, describe those changes.>*

*<Record any information that will be needed by people who will be preparing training or modifying business processes in conjunction with deployment of the new solution.>*

## Screenshots and explanations

*<Screen flow | Dialog Map>*

*<The screenshots and explanations>*

# References

1. *Beatty, Joy. Process Impact Intranet Development Standard, Version 1.3, www.processimpact.com/corporate/standards/PI Intranet Development Standard.pdf*
2. *Rath, Andrew. Process Impact Internet Application User Interface Standard, Version 2.0, www.processimpact.com/corporate/standards/PI Internet UI Standard.pdf*