**Cinema Management System**

**Vision**

**Version 1.0**

Revision History

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**Vision**

# Introduction

## *Purpose*

The Uno cinema system was established in 2020 with the aim of creating an entertainment venue. In order to quickly promote ticket payment and movie management, business processes need to be modernized with cinema management software.

## *Definitions, Acronyms and Abbreviations*

|  |  |
| --- | --- |
| **Term** | **Description** |
| CMS | Cinema Management System |

## *Reference*

[1] CMS Software Architect Document

# Positioning

## *Problem Statement*

The development of science and technology in recent years has brought about great achievements in economic development, improving the material and spiritual life of people. The results achieved even more science and technology, especially software engineering technology applied to life, developing faster and more strongly, handling many manual jobs before, significantly reducing the effort , get the job done quickly and accurately.

## *Product Position Statement*

Cinema UNO is a big movie theater. Demand for moviegoers is also increasing. But now the theater management whose focus is on choosing to import and buy movies; room arrangements and movie showtimes; manage the number of tickets sold; selling tickets, canceling ticket exchange for viewers ... still carried out manually. This situation causes many obstacles and difficulties for employees and managers, causing slow processing speed, overlapping tasks, errors,…. This adversely affects the quality of service, wastes resources and time and still causes trouble for viewers. They have affected the quality of service so it is necessary and urgent to change the new system.

In the thesis, the topic "Building a cinema management system" aims to achieve the following main goals:

* No overlap: the system needs to review the old system, then adjust the work so that the previous overlap is completely eliminated.
* Accuracy: updating and selecting showtimes must be appropriate, accurately minimize errors in order to improve service quality of theaters.
* Fast processing: making reports, statistics, updating data (movie list, cinema list, cinema list, ...) needs to be fast and accurate.
* Search easily: searching and searching for movie-related information, screening room, show time, ... should be easy. Whenever users need to find information, they will immediately know where to look and how to look.
* Management support: through the sold tickets, the package will give statistics about the movie, the best-selling time frame ... Out the types of movies that attract more viewers…. From the statistics, the table will help cinema managers easily calculate and give reasonable directions.
* Data safety and security: The system needs to have high reliability, the data will ensure safety, confidentiality and always ready to use. Data is backed up, restoring to minimize data loss. The system also needs to be highly secure, ensure that measures are taken to prevent and develop illegal access.
* User-friendly: the package is completely built in Vietnamese, using easy-to-understand and easy-to-read words. User-friendly interface construction. The user is easy to use with simple operation.

# User Descriptions

## *User Profiles*

There are two levels of users in the proposed CMS application, as following:

* Admin
* Employee

### Admin

As a cinema owner also manager, admin has full access to the CMS application, managing cinema resources, employees and so on. The information is required to detail the Admin, same as above:

* Full name
* Role
* E-mail address
* Mobile
* Date of birth
* Home address
* Other information (if any)

### Employee

Employees are people who work in the cinema and use the CMS application for their daily routine tasks, e.g. This information is needed for describing employees:

* Full name
* Role
* E-mail address
* Mobile
* Date of birth
* Home address
* Other information (if any)

## *User Task and Environment*

This briefly describes must-have abilities required to be implemented for the CMS application

* Host
  + Manage cinema resources, employee and so on
  + Generate business reports
  + Review feedback provided by customers
  + Manage systems
* Employee
* Ticket sales
* Service management department
* Projector room management
* Cinema management department
* Film management department

# Product Features

This describes briefly the CMS application, including the high-level capabilities of the system that are necessary to deliver benefits to the users, including admin employees etc.

* 1. *Booking Tickets*

The customer chooses the show according to the movie title, if the seats in the cinema room of that movie are full, the customer cannot book any more but must book according to the next show schedule. A room will have many chairs. Many movies will be shown on a schedule and will not show the same movie on a schedule. The movies will have a specific show schedule in a specific room. In order to create diversity, movies will be divided into 2D, 3D, movies with the same name but different formats can be shown on the same schedule. For ease of management, each show schedule will show a list of movies on an increasing schedule. In addition, if the movie theater of a show schedule is full, staff will advise customers on the next showtimes of the film.

* 1. *Promotions*

In order to increase customer interest in the company, the company organizes promotions. Each promotion, the company can give customers promotional coupon cards, each promotional coupon can be used to discount invoices in one of two ways:

* Discounts (tickets, popcorn).
* Donate items.

Below is a description of some coupons:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number | Coupon name | Type | Start day | End day |
| 1 | 30% discount on tickets | Discount | 01/01/2020 | 30/01/2020 |
| 2 | Free set of character sets BT21 limited with price 1,899,000 VND. | Donate items | 12/01/2020 | 01/12/2020 |
| 3 | 60% off popcorn if you buy a new flavor. | Discount | 02/03/2020 | 03/04/2020 |
| 4 | One free ticket if purchased 5 tickets. | Donate items | 01/04/2020 | 15/04/2020 |
| 5 | 50% off for couples | Discount | 10/02/2020 | 14/02/2020 |

When customers pay for goods, if they have a coupon and want to use it, the invoice will be discounted according to the coupon information that the customer uses.

Note: Each invoice can only use up to 1 coupon.

* 1. *Additional services*

Customers can buy more corn, water or not.

We offer popcorn in a variety of flavors and a variety of soft drinks and mineral water.

We also have a lower price corn and water combo.

* 1. *Payment*

Customers can pay right after receiving movie tickets. After the ticket office staff helps customers to book tickets and reconfirm movie information before printing tickets, the customer proceeds to pay for tickets plus other services such as meals, souvenirs, ... Month is stored, receipts are printed and sent to customers with detailed information, including time, theater name, cinema address, movie information, theater, seating location, services, fares , ...

Regarding payment methods, the RCP application can support cash, credit cards, gift cards, membership cards, ... Besides, administrators can add, modify or delete payment methods. new depending on the scalability of the RCP application.

* 1. *Report*

As an admin, he can view generated report.

The revenue report can be filtered by service (including start date, end date, total revenue). Or it can be done by date (including start date, end date, total revenue per month, year). It can be printed or exported.

* 1. *Search and information management*

Only admin can view, add and edit employee information. For that admin can easily manage employees.

# Non-Functional Requirements

## *Usability*

The CMS application must follow the latest user experience standards and supporting technologies, in order for the human actors to use easily the system and reduce the learning curve.

## *Security*

The CMS application must be secured, so that a customer can make online payments. It must support the following security services:

* Authentication: Login using at least a username and a password
* Authorization: According to their profile, online customer must be granted or not to perform some specific actions (gold customer, business partners, etc.).

For the Internet access, the following requirements are mandatory:

* Confidentiality: Sensitive data (credit card payments) must be encrypted using secure.
* Data integrity: Data sent across the network cannot be modified by a tier
* Auditing: Every sensitive action can be logged
* Non-repudiation: Gives evidence a specific action occurred

## *Availability*

The HMS application must ensure high availability architecture with failover capabilities.

## *Reliability*

The system must be robust and work according to the functional specification. The system cannot fail when executing the functionalities.

## *Performance*

Performance is characterized by the amount of useful work accomplished by a computer system compared to the time and resources used. This quality requirement is much related to reliability and high availability. The CMS application has a strong performance constraint when executing the functionalities.

## *Scalability*

Scalability is the ability of the system to handle growing amounts of work in a graceful manner or its ability to be enlarged with more resource to accommodate that growth.

### Internationalization (I18N)

The system must be able to deal with several languages (at least English and Vietnamese).

### Modifiability

The CMS application must follow an architectural style which supports modifiability. The N-tier architectural style enables the modifiability of the system natively

### Documentation

The CMS application should include user manual, administration guide.