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Object Oriented Programming Project Report

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# Introduction

In this Cinema Ticket Booking System, it covers a variety topics of Object Oriented Programming including Introduction to Class and Objects, Static Method, Array, Class Relationships (Association, Aggregation & Composition), Inheritance and Exception Handling. The Cinema Ticket Booking System is a programmed system that helps the user to book the movie tickets, as well as buying snacks, and verifying the membership status that could get discount on the spending.

The system will first request the user to select the movie by entering the number, then select the show time. Meanwhile, if the user selected the wrong movie or time, the user can enter “0” to return to the previous menu. Otherwise, the seat status will be shown. The seats with ( [ ] ) indicate that the seats are available and can be booked, while the seats with ( [ X ] ) are the seats that booked by other customers thus are not available. The system prompts the user to enter the number of tickets that are going to book, then prompts the seats number. If the user entered the invalid seats number, the seats cannot be booked.

If the seats are successfully booked, the system will print the cinema tickets that showing the movie name, show time, show hall, seat number, and ticket price. The next menu is the snacks combo menu. The user can select different packages of snacks with various price. Consequently, it can be looped to buy more snacks or enter “0” to proceed to next stage. The system will display the total price including cinema tickets price and snacks price.

In the following phase, the system will ask the user the membership status, …

After going through the booking ticket stage, buying snacks stage and verifying membership stage, the overall total price will be displayed.

# Objectives

The objectives of Cinema Ticket Booking System are:

1. Facilitates the process of booking cinema tickets.
2. Displays the showing movies.
3. Displays the showing time.
4. Shows the seats that are either booked or still available.
5. Computerizes the procedure of buying snacks.
6. Verify the membership status of users.
7. Calculates the overall total price of cinema tickets, snacks and membership discount.

# Scopes

The Cinema Ticket Booking System is aimed for:

1. Customers

To calculate the total price of booked cinema tickets as well as snacks.

1. Stuffs

To help counter arrived customers book the cinema tickets.

# Classes

Add a caption here //not done yet

# System Design

UML diagram

|  |
| --- |
| Customer |
| -fname: String  -lname: String  -icNo: String  -telNo: String  -gender: char |
| + Customer (String, String, String, String, char)  + getFirstName(): String  + getLastName(): String  + getIcNo(): String  + getTelNo(): String  + signup(): void  + getTelNo(): String  + memberDisc (boolean): double  + display(): void |

|  |
| --- |
| Ticket |
| -hall: int  -movie: int  -time: int  -seatNo: String[]  -seatPrice: double  -totalSeatPrice: static double |
| + Ticket()  + Ticket(int, int)  + setMovie(m): void  + setTime (t): void  + setHall (h): void  + getNo(): int  + getTotalSeatPrice(): static double  + getMovie(): String  + getTime(): String  + getHall(): int  + toString(int): String  + bookSeat(): int |

|  |
| --- |
| Member |
| -status: boolean |
| + Member ()  + ValidateMembership(): boolean |

|  |
| --- |
| Cinema |
|  |
| + main(String[]): static void |

|  |
| --- |
| Combo |
| -comboNumber: int  -order: int  -comboName: String  -comboPrice: double  - totalComboPrice: static double |
| + determineCombo(int): void  + displayCombo(): void  + displayTotalComboPrice(): static void  + getTotalComboPrice(): double |

|  |
| --- |
| Price |
| -ticketPrice: double  -comboPrice: double  -membershipDiscount: double  -totalPrice: double |
| + Price(double, double, double)  + calculateTotalPrice(): double |