***Formal Report on Cinema Employee Management Application***

***Executive Summary***

This report provides an analysis of the Cinema Employee Management Application, a console-based Kotlin application.

The application is designed to facilitate cinema employees in managing movies, sessions, ticket sales, and refunds. It provides a user-friendly interface for handling various operational tasks in a cinema with a single auditorium.

***Introduction***

The Cinema Employee Management Application is developed in response to the growing need for digital solutions in managing cinema operations. The application's primary aim is to streamline the process of selling and refunding tickets, managing session schedules, and editing movie information.

***Features and Functionalities***

1. ***Ticket Purchas***

-Description: This feature allows employees to sell tickets to customers. It includes choosing a movie, a session, and seat selection.

- Example: When a customer wants to purchase a ticket, the employee selects the 'Ticket purchase' option, chooses the movie and session, and then selects an available seat to complete the sale.

1. ***Ticket Refund***

- Description: Facilitates the refunding of tickets before the session starts.

- Example: If a customer decides to cancel their ticket, the employee selects the 'Ticket refund' option, identifies the ticket to be refunded, and processes the return.

1. ***Show Available and Booked Seats***

- Description: Displays all seats for a selected session, indicating which are available and which are booked.

- Example: To check the occupancy of a session, the employee selects the 'Show Available and Booked Seats' option and views the seat status.

1. ***Edit Movie and Session Data***

- Description: Enables editing details of movies and session timings. The password is mandatory in this case

- Example: If a movie's timing changes, the employee selects the 'Edit' option, chooses the relevant movie or session, and updates the information.

1. ***Data Saving***

- Description: Saves the current state of movies, sessions, and tickets to CSV files.

- Example: At the end of a shift, the employee uses the 'Save' option to ensure all data changes made during the day are saved.

1. ***Exit Application***

- Description: Allows the employee to exit the application with an option to save current data.

- Example: Upon completing their tasks, the employee selects 'Exit', where they are prompted to save before the application closes.

***User Interface***

The application employs a simple and intuitive console-based interface.

The main menu presents the functionalities as a numbered list, and the user interacts with the application by entering numbers corresponding to different options.

*File Structure and Code Analysis*

- Main.kt: Serves as the entry point of the application.

- StartApp.kt: Manages the main application workflow and user interface.

- Movie.kt, Seans.kt, Ticket.kt: Define the data structures for movies, sessions, and tickets.

- Editing.kt: Handles the editing of movie and session information.

- TicketsService.kt: Manages the processes related to ticket transactions.

- Util.kt: Responsible for file operations, including reading and writing data to CSV files.

*Conclusion*

The Cinema Employee Management Application is a tool designed to optimize the efficiency of cinema operations.

Its functionality addresses the essential needs of ticket management, session scheduling, and data handling.

The application's simple interface and effective organization of features make it suitable for quick adaptation by cinema employees.