# Movie Theater Booking System

## Overview

This system is a desktop GUI (please use JavaFX) object oriented application to support the ticket sales for an entertainment complex. This system will provide information regarding which movie is playing in which theater and how many viewers are booked (tickets assigned) for any given show. The entertainment complex has multiple theaters (viewing rooms) which independently show films (movies). A viewer will book a seat in the appropriate theater that is showing the film they wish to see at a particular show time.

## Functional Description

The system will provide the following functionality:

- Assign films to theaters
- Sell tickets to viewers based on film and show times
- View current status of a given show (tickets sold, seats available)
- List status (tickets sold, seats available) of all shows by theater by show time
- List total number of viewers (tickets sold) by film

There are four theaters, each with a capacity for 50 viewers (50 seats). When a ticket is sold the ticket holder (viewer) will be assigned a specific seat in the theater (reserved seating). The seats in the theaters are numbered 1 through 50.

For any given theater the film is shown three times a day; 10:00 AM (morning), 3:00 PM (matinee), and 8:00 PM (evening).

Each show requires a theater and a show time.

Each theater contains seats and is assigned a film to show.

For simplicity assume that the program is only tracking today's shows.

Make the data persistent so the user can exit the program without losing the current data. This will require saving the information to files and reading the files when the program is restarted.

## Grading Criteria

20% Style and comments

20% Modularity and Object Oriented design.

60% Usability, error checking, and performance of each menu function