**Theater Ticketing System**

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Our team plans to create a centralized system for movie theaters to manage their current feature films, create tickets for customers, and view the past transactions that had occurred at the theater. The theater manager will be able to access the system and create theater rooms by specifying their identifying number, amount of seats available and screen size. Once a theater is created, the manager can create movies that are currently being shown, including the title, director, actors, rating, runtime, premier date, and end date. Once a movie is created it will be assigned to one or more theater rooms and the system will then generate the showtimes for the given movie over the course of the specified run dates. Once the movie is assigned to the theater room, the system can be queried to show all showtimes and dates for a specific movie and which theater room the movie will be played in, all movies being shown on a specific day, and all showtimes for a specific theater room.

The system will then allow for theater attendants to generate tickets for a specific movie showing and the system will keep track and show how many seats are available in each theater to prevent double-booking. If the movie the customer has chosen to see is R rated, the attendant will be prompted to verify the age of the customer. Once the ticket is confirmed and purchased, the tickets will be generated in a printable format and a receipt for the sale will be generated. The transaction is then logged in the system and the theater attendant will be able to queue and view the transaction by either a date range or by the individual movies.