**Project Selected:** Movie Theater Management System

**Description:**

We have discussed the staff being able to add/remove other staff and giving the customer the ability to add/remove tickets, seats and concessions. We are also looking to track concession sales and gross sales for each movie. Tracking metrics for over-all sales of tickets for a given day or tracking different types of tickets sold and similar avenues of reporting. Another report we are looking to print would be information about the current employees and movie titles.

We have added two additional classes being “Seating” and “Concessions”. Below is a breakdown of what we are currently thinking with each class.

**Project Classes**

**CUSTOMER**

The customer can begin their experience by proceeding as guest or member and will have a 3 option menu to enter number, continue as guest or sign up. Members will be tracked via telephone number and store names along with their number and DOB. Members will be stored in a 2D array. And have a verification that they are a member or prompt to sign up or continue as guest.

The customer will then have a menu to purchase movie tickets or concessions.

Calls:

* Movie
* Seats
* Concessions

Staff

* Enter Password
* Employee Names
* Employee Titles
* Employee Salaries
* Change Movie Titles
* Change movie times
* Employee Discount (might be too much)

Movie

* Titles
* Runtimes
* Rating (R, PG etc)
* 3D
* Movie synopsis
* Cost

**SCREEN**

There will be a fixed number of screens for the theater. The movie and the time associated with each screen will have to be managed and linked to **MOVIE** to pull information and will need to be assigned by **STAFF**. The time could automatically be set based on the runtime parameter set in **MOVIE.** Each movie scheduled on a particular screen will create a new “Showing” array that will pull the current **SEATING** array so multiple screenings for each screen will have its own unique seat selections array. Screen will be tied to **SEATING**. There will need to be a built in function that allows **STAFF** to be able to select a date and time the movie will run and not allow another **MOVIE** to be assigned during the same date and time. Will also need to add a 20 minute buffer between movies for realism (cleaning staff etc). Movies typically air for a full week before the their scheduled times and screens are changed. Screens can be scheduled two weeks into the future.

Payment

* Needs cancellation option in menu.
* Credit Card
* Cash
* Apple
* Gift Card
* Voucher

Showtime

* Times

Concessions

* Menu
* Prices

**SEATING**

Seating will all have the same number of seats with the exception of IMAX. IMAX is stadium style seating with a lot bigger screen so it will have more seats. The number of seats for each screen will remain fixed and never change. Seating will be tied to each **SCREEN** and will have a different array created for each time a **MOVIE** is scheduled for each screen**.** During seat selection, the **CUSTOMER** will ideally be able to select seats, which will be temporarily replaced with an x until check out and **PAYMENT** is confirmed. If the seats value = x, there will be a prompt displaying unavailable. If the customer cancels the transaction in payment, the seats will be made available to purchase again. Each array will have to have a designation of IMAX or not. IMAX will be a different cost per seat. 3D will be a different cost per seat.