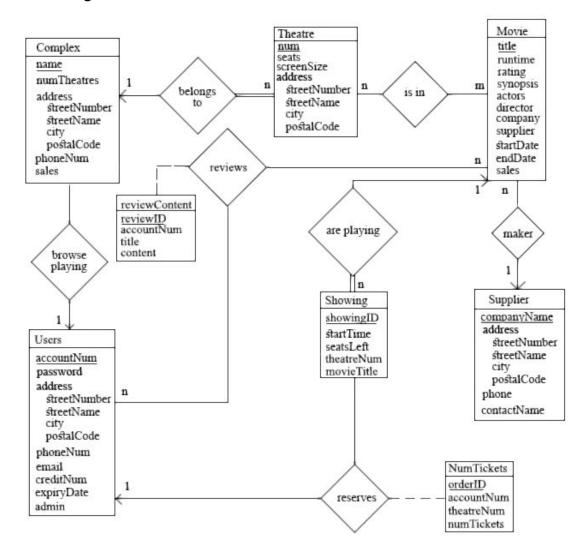
### CISC-332 Project - Group 69

## Deliverable 2: Application Demonstration / Final Report Tiffany Chan (10181522) & Spencer Delaney (10178519)

### **Assumptions**

- Every user must either login or register with the service before viewing any movies therefore first page user interacts with is a Login/Sign Up Page.
- Assume the user will always input the correct information. Therefore, we had minimal checking for proper input but if incorrect information is inputted user is notified.
- Assume the administrator knows the information needed to delete user and add/update movies, showings, theatres, and complexes. For example, while adding a movie, administrator already knows the existing suppliers.
- Assume that once user purchases a movie, no ticket is to be provided but can be viewed in "View Purchases".
- Assume that a user can also purchase tickets for a movie that will be coming out soon.
- Assume that the user does not have to go back and look at their written review as it was not part of the required functionalities. However, we know our "Write a Review" functionality worked as it does appear in our database.
- Assume that the Theatre entity needs the address attributes as it was one of our suggested feedback after Deliverable 1.
- Assume that since the most popular Complex and Movie must be computed, the easiest way to implement this was to have a sales attribute within a Complex and Movie that tracks and counts the amount of tickets sold.
- Assume that the user does not need to create a username that associates with their account as their email acts as their unique username.
- Assume that the entities Showing, NumTickets, and ReviewContent need unique primary keys therefore an ID attribute is added.
- Assume that we do not have to provide sample output from queries as Professor stated.

### **Final ER Diagram**



#### **Final Relational Schema**

Please refer to the attached .dml file for the complete and final relational schema.

### **SQL** Interactions with Database

Below you will find the queries we had in our php code for the various functionalities in order to interact with our database. Keep in mind that these are only the query lines in the code to give you a brief overview of the queries we made.

### Login Query:

query="SELECT \* FROM `Users` WHERE email='semail' AND password='spassword'"; //where \$email and \$password were variables that held the input from the user and we had an if statement that checked if admin flag was set to 1 for admin privileges

### Sign Up Query:

\$query1 = "SELECT accountNum FROM users ORDER BY accountNum DESC LIMIT 1";
\$accountNum = ++\$result['accountNum']; //increments new accountNum by 1

```
$query2 = "INSERT INTO users Values ('$accountNum', '$password', '$streetNumber',
'$streetName', '$city', '$postalCode', '$phoneNum', '$email', '$creditNum',
'$expiryDate', '0')";
Browse Movies
//currently playing query
$today = date("Y-m-d");
$query1 = "SELECT * FROM Movie WHERE (endDate > '$today' AND startDate <= '$today')</pre>
ORDER BY startDate DESC";
//coming soon query
$query2 = "SELECT * FROM Movie WHERE (startDate >'$today') ORDER BY startDate
DESC";
//previously played query
$query3 = "SELECT * FROM Movie WHERE (endDate < '$today') ORDER BY startDate DESC";</pre>
Purchase Movie Tickets
//lists all the currently playing/coming soon movies
$query1 = "SELECT * FROM Movie WHERE (endDate > '$today') ORDER BY startDate DESC";
//lists all the theatres playing the movie user selected
$query2 = "SELECT complexName FROM Theatre JOIN
            (SELECT theatreNum FROM Showing WHERE movieTitle='$movie') AS T
            ON Theatre.num = T.theatreNum";
//lists all available times based on movie and theatre user selected
$query = "SELECT startTime FROM Showing WHERE movieTitle='$movie'";
Cancel Purchase
$query = "SELECT orderID FROM NumTickets WHERE orderID='$orderNum'";
$query1 = "DELETE FROM NumTickets WHERE orderID='$orderNum'";
Browse Previous Purchases
$query = "SELECT accountNum FROM Users WHERE email='$email'";
$query1 = "SELECT * FROM NumTickets WHERE accountNum='$account'";
$query2 = "SELECT movieTitle FROM Showing WHERE Showing.theatreNum = $num";
$query3 = "SELECT endDate FROM Movie WHERE title='$movieTitle'";
$query4 = "SELECT complexName FROM Theatre WHERE num='$num'";
Write a Review
$query1 = "SELECT `reviewID` FROM ReviewContent ORDER BY reviewID DESC LIMIT 1";
$query2 = "SELECT accountNum FROM Users WHERE email='$email'";
$query3 = "INSERT INTO ReviewContent VALUES ('$id', '$account', '$title',
'$content')";
Edit Profile
//checked when user input var is not null, update that specific attribute
$query = "SELECT accountNum FROM Users WHERE email='$newEmail'";
$query1 = "UPDATE Users SET email = '$newEmail' WHERE accountNum='$accountNum'";
$query2 = "UPDATE Users SET password ='$newPassword' WHERE
accountNum='$accountNum'";
$query3 = "UPDATE Users SET streetNumber='$newStreetNumber' WHERE
accountNum='$accountNum'";
$query3 = "UPDATE Users SET streetName = '$newStreetName' WHERE
```

accountNum='\$accountNum'";

```
$updateStreetName = mysqli_query($conn, $query3) or die(mysqli_error($conn));
$query4 = "UPDATE Users SET phoneNum ='$newPhoneNum' WHERE
accountNum='$accountNum'";
$query5 = "UPDATE Users SET city='$newCity' WHERE accountNum='$accountNum'";
$query6 = "UPDATE Users SET postalCode ='$newPostalCode' WHERE
accountNum='$accountNum'";
$query7 = "UPDATE Users SET creditNum ='$newCreditNum' WHERE
accountNum='$accountNum'";
$query8 = "UPDATE Users SET expiryDate ='$newExpiryDate' WHERE
accountNum='$accountNum'";
```

#### List Members

```
$result = $conn->query("SELECT * FROM `users`");
```

#### Remove Members

```
$query = "DELETE FROM users WHERE accountNum = '$accountNum'";
```

### Add/Update Theatre Info (Complex has same idea)

```
//Similar structure to "Edit Profile" where it updates the attribute when the user
input var is not NULL
$query1 = "UPDATE theatre SET seats ='$newSeats' where num = '$num'";
$query2 = "UPDATE theatre SET streetNumber='$newStreetNumber' where num = '$num'";
$query3 = "UPDATE theatre SET streetName ='$newStreetName' where num = '$num'";
$query4 = "UPDATE theatre SET screenSize ='$newScreenSize' where num = '$num'";
$query5 = "UPDATE theatre SET city='$newCity' where num = '$num'";
$query6 = "UPDATE theatre SET postalCode ='$newPostalCode' where num = '$num'";
```

### Add Movies

```
$query2 = "INSERT INTO movie Values ('$title', '$runtime', '$rating', '$synopsis',
'$director', '$company', '$supplier', '$startDate', '$endDate', '$sales')";
```

### **Update Showings**

```
//again similar structure to "Edit Profile" where it updates the attribute when the
user input var is not NULL
$query1 = "UPDATE showing SET theatreNum ='$newTheatreNum' where showingID ='$id'";
$query2 = "UPDATE showing SET movieTitle='$newMovieTitle' where showingID = '$id'";
$query3 = "UPDATE showing SET startTime ='$newStartTime' where showingID = '$id'";
$query4 = "UPDATE showing SET seatsLeft ='$newSeatsLeft' where showingID = '$id'";
```

### Show Rental History

```
$query1 = "SELECT * FROM numTickets WHERE accountNum = '$accountNum'";
$query = "SELECT movieTitle FROM Showing WHERE Showing.theatreNum = $num";
```

### Most Popular Movie (Complex has same idea)

```
$result = $conn->query("SELECT MAX(sales) as maxSales FROM `movie`");
$title = $conn->query("SELECT title from movie where sales = $sales");
```

#### **Discussion**

While designing and implementing the website for the Online Movie Ticket System, we knew that there will need to be many web pages developed in order to differentiate between the User and Administrator as well as their functionalities. The first point of contact the user encounters with the OMTS is the Login / Sign Up page. This page prompts the user to Login with their email and password. If the credentials used to log in are not valid, the user would be prompted about it and must fill out the Sign Up form.

Once they login, depending on the admin flag used in the database, it will direct the user to the appropriate page. We decided that the best approach to implement these pages is to create a simple, concise, and elegant home page that would list all the functionalities the member/admin can do and link the corresponding pages. The design of the home page is kept simple by using a box-grid system, where each box listed is a functionality. In addition, depending on the login credentials entered, the member/admin will see different amounts of boxes indicating their ability within the OMTS. When listing information to the user such as in browsing movies or listing members, we grouped related info together and separated it from others with spacing. For example, when listing members, each user is divided into its' own block of text based on their account number (primary key). When prompting user for input, we used a form that enables the user to input text from what is asked. For example, in "Edit Profile", in order to keep it straight-forward, we listed out all the possible info the user can modify, and they would only enter into the text-boxes they wanted to update. In contrast, for other functionality such as "Purchase Movie", the user must enter into the text-box from one of the listed options.

The web pages were defined through HTML, styled with CSS, and functionality was provided through PHP. These files were written in a text-editor and our .dml file was imported into phpMyAdmin to help us manage the database. We used the XAMPP (SQL/Apache) Servers where all the corresponding files were saved into htdocs. By doing so, we were able to connect to our database while running the website in the browser. To ensure our website is user-friendly, we also used Bootstrap to help us, especially for the home page grid system. Furthermore, we used software such as Photoshop to help us mockup a logo for the web pages and favicon to establish a professional looking website.

We chose to use these technologies and tools since it was what was familiar to us. In class, it was suggested to use XAMPP and following the provided instructions, it was very easy to install and use. As for experience, we both had no prior experience working with databases, and we had no formal knowledge of web development as it was all self taught. In order to ensure that we fully grasped the tools we were using, we asked the course's teaching assistants as well as friends with experience to help guide us. For example, after writing the .dml file, it was not clear how to implement it onto a database system. Therefore, a friend in the course walked us through how to access and use phpMyAdmin, and import our corresponding .dml file. Although there

were many frustrations while developing, we are both very proud and satisfied with our final design and implementation as prior to this project, we had limited knowledge and experience.

While implementing the OMTS, there were many problems that arose since it was still a learning curve for the two of us. We both had experience developing with HTML and CSS but not with PHP, therefore to be able to execute it with a working website took some time. The problems we mainly encountered were debugging issues and minor syntax mistakes. For example, writing HTML code within the PHP code left room for silly mistakes, as it was all confined within an echo. Furthermore, while making queries and accessing the results from it, we either forgot to fetch the result into a variable or ran into runtime issues as the result was an object, and we forgot to fetch the object's contents through iteration. Lastly, a problem we faced was that between the two of us, we both developed on different environments. For example, we divided the work by Member and Administrator functionalities. While putting the system all together onto one computer, we saw styling differences since one of us developed on a Mac and the other PC. We both also had different screen resolutions, and saw minor differences between the two outcomes, in which we had to make small styling fixes before the final demo.

If we had the chance to go back and do it differently, we would add more realistic functionalities for the Members and Administrators. For example, with the listing of all the movies, we could attach a movie poster and the corresponding written reviews for the movie to give the user more info and visual aspects. In addition, while browsing and purchasing a movie, allow the user to be able to search by either the Movie or Complex as this would be a more realistic and user-friendly approach. Furthermore, we would make the login page more dynamic and interesting by using a "carousel" of movie posters available in bootstrap. With these suggested changes, we believe our Online Movie Ticket System will enhance the user's experience with our system, and resemble more likely to a real-world movie ticket system.

### **User's Guide**

Shown below.





## Online Movie Ticket Service User Guide

April 6th, 2018. Group 69: Tiffany Chan & Spencer Delaney





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### Introduction

The Online Movie Ticket System (OMTS) is a web-based application where you can access the most recent movies playing at a Theatre Complex, purchase tickets in advance, review movies you have watched, and many more! The system is divided into two different types of users - Members and Administrators. Depending on your given provided privilege, you have an array of various functionalities available to you.

## **Navigation**

### Login

This is the first point of contact you will see when you access our website. You are prompted to login with your email and password you have registered with in our system. If you do not have an account, you must register with our system before gaining access to it. Click on the Sign Up button located at the center-bottom to fill out the Sign Up form.

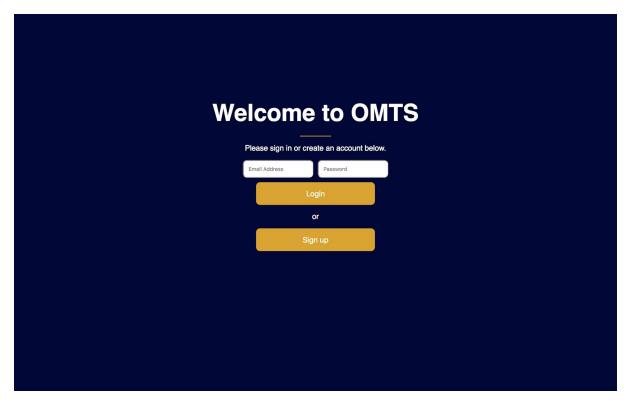


Figure 1. Login Screen



### Sign Up

If you do not have an account with us and you clicked on the Sign up button, you will be directed to a form where you must fill out all the indicated information. The email you use to register must not be already registered with our system, and keep this information close at hand as this is what you need to log in. Once you enter all the corresponding information and click "Sign Up", you will be redirected back to the login page. Now you may login with the email and password you just used to sign up.

Cr	eate an Account
	Email Address
	Password
	Phone Number
	Street Number
	Street Name
	City
	Postal Code
	Credit Card Number
	Expiry (MMYY)
	Sign Up

Figure 2. Sign Up Form

### Homepage

Once you have successfully signed up / logged in, you will be directed to our grid-system homepage that lists all the different functionalities that are available to you. This will be the main point of contact for you to perform actions within our system. If you are a general member, you will only see eight boxes as your functionalities are restricted. In contrast, an administrator will see 17 boxes as you have more access to the system.





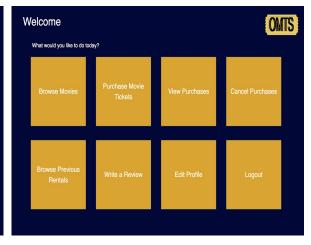


Figure 3. Administrator Homepage

Figure 4. Member Homepage

### **Members**

### **Browse Movies**

By clicking the box labelled "Browse Movies", you will be directed to another webpage that displays all the Currently Playing, Coming Soon, and Previously Played movies at all the Theatre Complexes. Within each movie listed, the title, duration, rating, synopsis, director, production company, supplier, release date, and the end date information is displayed. At the bottom right corner, you will see a small button with the label "top". If you click this, it will bring you back up to the top of the page for convenience sake.



Figure 5: Browse Movie Listing



### Purchase Tickets

When you want to purchase tickets for a movie currently playing or coming soon, you can click on the button labelled "Purchase Movie Ticket" found on the homepage. This is direct you to another page that prompts you to enter the Movie title you want to purchase tickets for. Above is a list of movies that are available to you to purchase. After entering the movie title, our system will determine which Theatre Complexes are playing that particular movie and list out the available complexes for you. You must enter the complex you want to purchase tickets for. Once again, our system will list out the available showtimes for the movie and theatre complex you have chosen. You must again, enter the selected time where you will be prompted on the amount of tickets you want to purchase. If the number of tickets you have entered exceeds the seats available for that showing, a message will be prompted on the screen indicating it is sold out. If the number of tickets you want to purchase is valid, your credit card associated with your account will be automatically charged. You can view this recent purchase in "View Current Purchases".

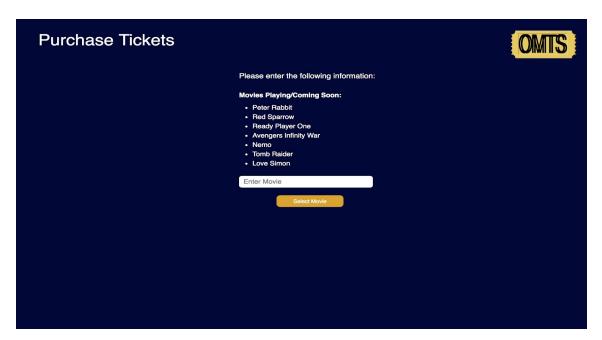


Figure 6. Listing of movies available for purchase



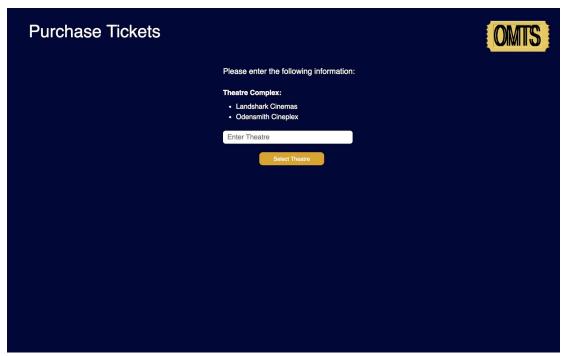


Figure 7. Listing of available theatre complexes showing the selected movie

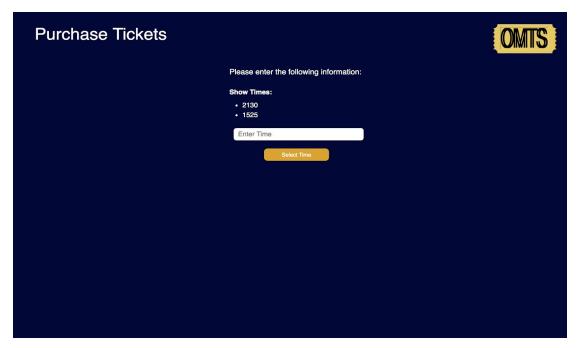


Figure 8. Listing of available showtimes for the selected movie and complex



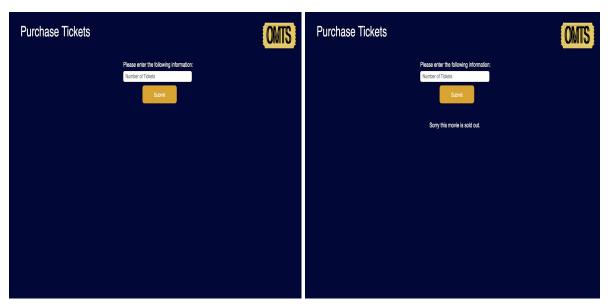


Figure 9. Number of tickets to purchase

Figure 10. Error message if movie is sold out

### View Current Purchases

If you have made any purchases for any movie currently playing or soon to be playing, and want to view them, click on the box labelled "View Purchases" on the homepage. Here you will find a listing of the movies you have purchased tickets for, along with the following information: Order ID, Movie, Theatre Complex and Number, and Number of tickets purchased. If you did not make any recent purchases, a message will indicate this.



Figure 11. Listing of the current purchase(s) a user has along with corresponding info

# OMIS

## **User Guide**

### Cancel Purchases

If you recently made a purchase for a movie, but decide you don't want it anymore, click on the box labelled "Cancel Purchases" found on the homepage. You will be directed to another page where you will be prompted to enter the corresponding order number that you want to cancel. Once entered, click "Submit" and the order will be cancelled along with an automatic refund back onto your credit card associated with your account.

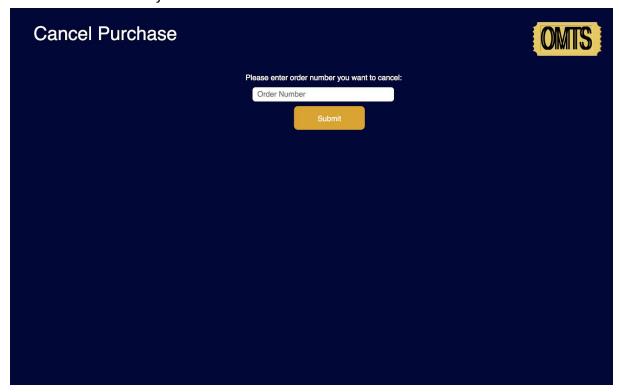


Figure 12. Cancel Purchase Screen

### View Previous Rentals

If you have made any purchases for any movie that is no longer playing and want to view them, click on the box labelled "Browse Previous Purchases" on the homepage. Here you will find a listing of the movies you have purchased tickets for, along with the following information: Order ID, Movie, Theatre Complex and Number, and Number of tickets purchased. If you did not make any previous purchases, a message will indicate this.





Figure 13. Listing of the Previous Purchases user has

### Write a Review

If you have a movie you have seen and want to give it a review of your own thoughts, click on the box labelled "Write a Review" found on the homepage. You will be directed to another page that will prompt you to enter the Movie title you are reviewing, along with your review content. Once you are finished, click "Submit" and your review will be saved and associated with the movie.

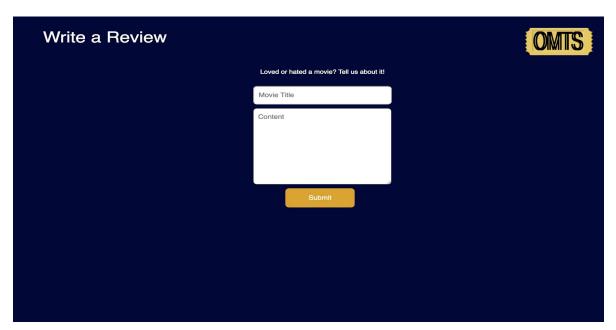


Figure 14. Write a review screen

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## User Guide

### Edit Profile

By clicking on the box labelled "Edit Profile" found on the homepage, you can edit your profile information associated with your account. You will be directed to another page that reflects similarly to the Sign Up form, where you can enter information to the only information you want to modify. Once you are finished with your changes, click "Submit" to apply these updates to your account.

Email Address  Password  Phone Number  Street Number  City  Postal Code  Credit Card Number  Expiry (MMDD)	<b>Edit Account</b>
Password  Phone Number  Street Number  Street Name  City  Postal Code  Credit Card Number  Expiry (MMDD)	Enter only the information you want to modify:
Phone Number  Street Number  Street Name  City  Postal Code  Credit Card Number  Expiry (MMDD)	Email Address
Street Number  Street Name  City  Postal Code  Credit Card Number  Expiry (MMDD)	Password
Street Name City Postal Code Credit Card Number Expiry (MMDD)	Phone Number
City Postal Code Credit Card Number Expiry (MMDD)	Street Number
Postal Code  Credit Card Number  Expiry (MMDD)	Street Name
Credit Card Number  Expiry (MMDD)	City
Expiry (MMDD)	Postal Code
	Credit Card Number
Submit	Expiry (MMDD)
	Submit

Figure 15. Edit Profile Screen

### **Administrator**

### List Members

By clicking the box labelled "List Members", you will be directed to another webpage that displays all the members in the OMTS system. Within each member listed, the member's account number, email, password, address and their credit card information is displayed. At the bottom right corner, you will see a small button with the label "top". If you click this, it will bring you back up to the top of the page for convenience sake.

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## **User Guide**



Figure 16. Listing of all the members within OMTS

### Remove a Member

By clicking the box labelled "Remove Members", you will be directed to another webpage that displays a text box which you can type out the users account number. After typing out the account number of the user you wish to remove, you can either click the button or hit enter and the user will be removed from the system.

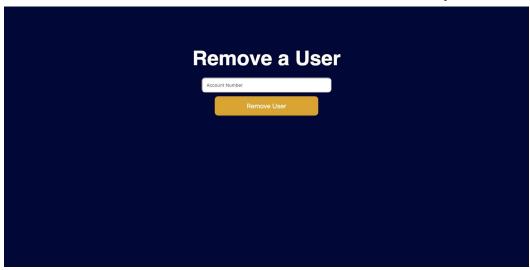


Figure 17. Remove a user Screen



### Add/Update Theatre

By clicking the box labelled "Update Theatre Info", you will be directed to another webpage that displays a series of text boxes along with a button. To update a theatre's information, you must only input the theatre's number of the theatre you wish to change along with the information you wish to change. You only need to put insert information into the boxes which you want to change.

Ad	ld/Edit Theatres	
E	nter only the information you want to modify:	
	Number of Theatre to Edit	
	Seats	
	Screen Size	
	Street Number	
	Street Name	
	City	
	Postal Code	
	Submit	

Figure 18. Add/Update Theatre Screen

### Add/Update Complex

By clicking the box labelled "Update Complex Info", you will be directed to another webpage that displays a series of text boxes along with a button. To update a theatre's information, you must only input the theatre's number of the theatre you wish to change along with the information you wish to change. You only need to put insert information into the boxes which you want to change.



dd/Edit Complex
dd/Edit Complex
_
Enter only the information you want to modify:
Name of Complex to Edit
Number of Theatres
Phone Number
Street Number
Street Name
City
Postal Code
Submit

Figure 19. Add/Update Complex Screen

### Add Movie

By clicking the box labelled "Add Movies", you will be directed to another webpage that displays a series of text boxes along with a button. To add a movie's information, you must input all of the information for the movie. After clicking the button or hitting enter the movie will be added to the database.

Add a Movie  Title  Runtime  Rating  Synopsis  Director  Company  Supplier  Start Date  End Date  Sales
Runtime Rating Synopsis Director Company Supplier Start Date End Date Sales
Rating Synopsis Director Company Supplier Start Date End Date
Synopsis  Director  Company  Supplier  Start Date  End Date  Sales
Director  Company  Supplier  Start Date  End Date  Sales
Company Supplier Start Date End Date Sales
Supplier Start Date End Date Sales
Start Date End Date Sales
End Date Sales
Sales
Add

Figure 20. Add movie screen



### Update Where and When Movies Play

By clicking the box labelled "Update Where and When Movies Play", you will be directed to another webpage that displays a series of text boxes along with a button. To update a movie's information, you must only input the movie's title you wish to change along with the information you wish to change. You only need to put insert information into the boxes which you want to change.

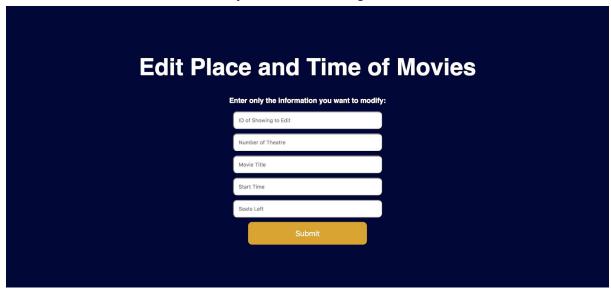


Figure 21. Update When and Where Movies Play Screen

### Show Member's Rentals

By clicking the box labelled "Update Where and When Movies Play", you will be directed to another webpage that displays a text box. After entering a user's account number and either clicking the button or hitting enter, the site will list all of the user's rentals.

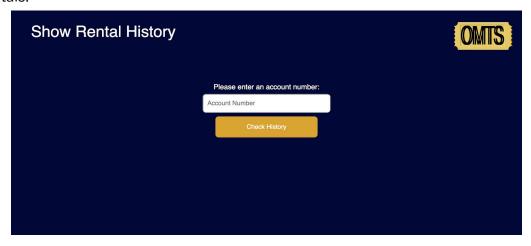


Figure 22. User's Rental History Screen

## OMIS

## **User Guide**

### Most Popular Movie

By clicking the box labelled "Show Most Popular Movie", you will be directed to another webpage that displays the most popular movie of all complexes in the system.

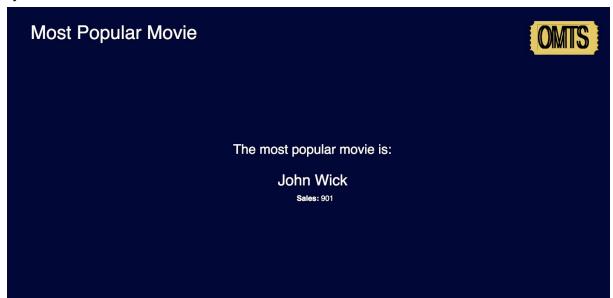


Figure 23. Most Popular Movie Screen

## Most Popular Complex

By clicking the box labelled "Show Most Popular Complex", you will be directed to another webpage that displays the most popular complex in the system.



Figure 24. Most Popular Complex Screen



## Logout

When you are finished using our system, click the box labelled "Logout" to end your session. We highly recommend you to logout when you are finished to ensure the security and safety of your account.