NEW WAVE CINEMA PROJECT REPORT

Prepared by

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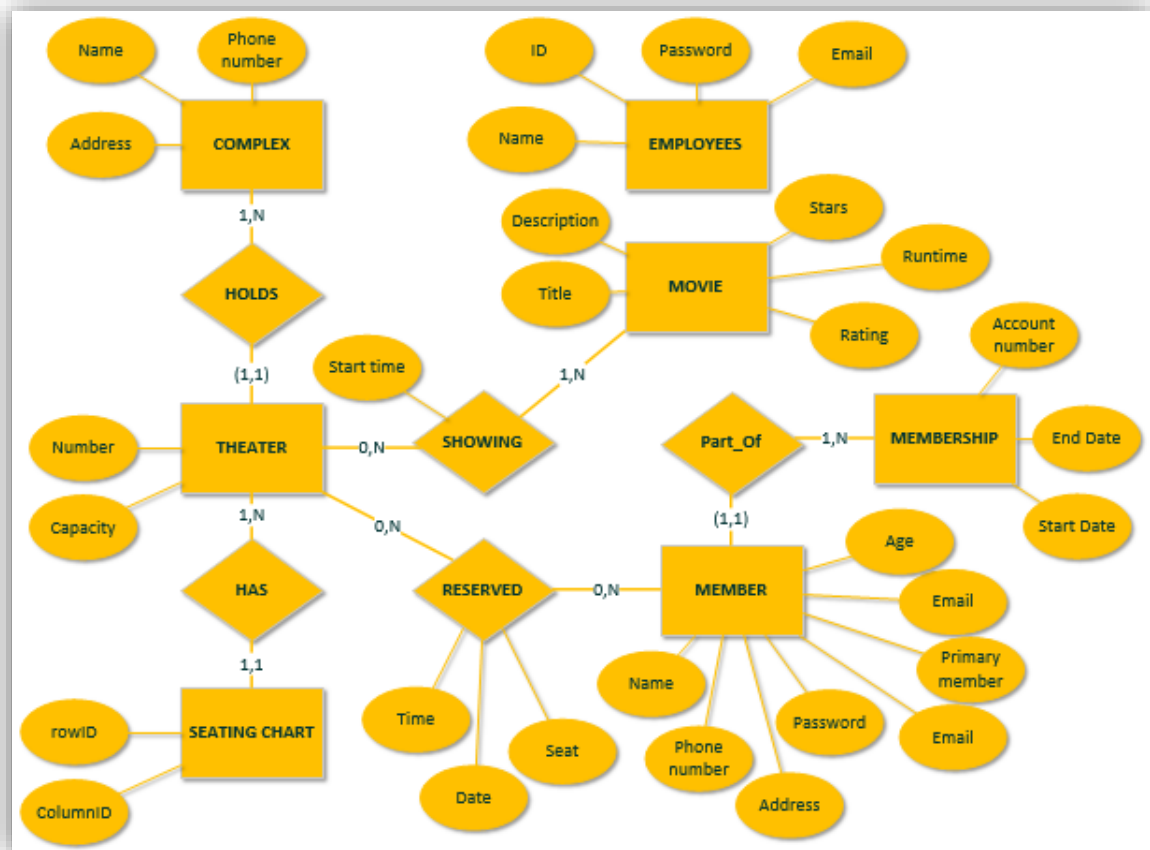
1. Entity Relationship Diagram:

Figure 1.1 : ERD of New Wave Cinema.

2. Relational Model:

Complex(ID[pk],Phone_Num,Address)
Movie(Title[pk],Stars,Rating,Description,Run_Time)
Membership(Account_Num[pk],Start_Date,Expiration_Date)
Employees(ID[pk],Name, Email,Password)
Theater(Complex_ID[pfk],ID[pk],Capacity)
Member(Membership_Acct_Num[pfk],Name[pk],Phone_Num,Email, Age,Address,Primary_Member,Password)
Showing(Theatre_ID[pfk],Complex_ID[pfk],Movie_Title[pfk],Start_Time)
Reserved(Member_Name[pfk],Membership_Acct_Num[pfk],Theatre_ID[pfk],Complex_ID[pfk],rowID,colID,Time,Day)
Seating_Chart(Theatre_ID[pfk],Complex_ID[pfk],rowID[pk],colID[pk])

3. Data Dictionary

Entity	Field Name	Datatype	Size	Constraints	Key(s)	Description
nwc_complex	complex_name	varchar	15		primary	Stores the name of the complex
nwc_complex	addr	varchar	50	not null		Stores the address of the complex
nwc_complex	phone_no	numeric	10			Stores the phone no of the complex
nwc_movie	title	varchar	20		primary	Stores the title of movie
nwc_movie	stars	varchar	15			Stores the star of the movie
nwc_movie	rating	varchar	5			Stores the rating of the movie
nwc_movie	description	varchar	80			Stores the synopsis of the movie
nwc_movie	runtime	time		not null		Stores the run time of the movie
nwc_membership	account_no	numeric	9			Stores the account_no of the membership
nwc_membership	start_date	date		not null		Stores the start date of the membership
nwc_membership	expire_date	date		not null		Stores the expiration date
nwc_employees	emp_id	varchar	5		primary	Stores the employee ID
nwc_employees	emp_name	varchar	40	not null		Stores the employee name
nwc_employees	emp_pass	varchar	30	not null		Stores the employee password
nwc_employees	emp_email	varchar	50	not null		Stores the employee email
nwc_theatre	t_id	varchar	5		primary	Stores the theater ID
nwc_theatre	complex_name	varchar	15		primary |foreign	Stores the complex name associated with the theater

nwc_theatre	capacity	numeric	3	not null		Stores the capacity of the theater
nwc_seatingchart	t_id	varchar	5		primary |foreign	Stores the theater where the seat is located
nwc_seatingchart	complex_name	varchar	15	not null	primary	Stores the complex name associated with the seat
nwc_seatingchart	rowID	varchar	1	not null	primary	Stores the seat row ID
nwc_seatingchart	columnID	int			primary	Stores the seat column ID
nwc_member	mb_name	varchar	40		primary	Stores the member name
nwc_member	account_no	numeric	9		primary |foreign	Stores the account number associated with the member
nwc_member	phone_no	numeric	10	not null		Stores the member phone number
nwc_member	email	varchar	25	not null		Stores the member email
nwc_member	age	numeric	3	0<age<=120		Stores the member age
nwc_member	addr	varchar	50			Stores the member address
nwc_member	main_mb	boolean				Stores the status of the member primary (1) or secondary
nwc_member	password	varchar	30	not null		Stores password of the member
nwc_showing	title	varchar	20		primary |foreign	Stores the title of the movie been showing
nwc_showing	t_id	varchar	5		primary |foreign	Stores the theater ID where the showing takes place
nwc_showing	complex_name	varchar	15		primary |foreign	Stores the complex name where the showing takes place
nwc_showing	start_time	time		not null	primary	Stores the start time of the showing
nwc_reserved	mb_name	varchar	40		primary |foreign	Stores the member name associated to the seat reserved
nwc_reserved	account_no	numeric	9		primary	Stores the account no of the member reserving the seat
nwc_reserved	t_id	varchar	5		primary |foreign	Stores the theater ID in which the seat reserved is located
nwc_reserved	complex_name	varchar	15		primary |foreign	Stores the complex name in which the seat is reserved
nwc_reserved	rowID	varchar	1		foreign	Stores the row ID in which the seat reserved is located
nwc_reserved	columnID	int			foreign	Stores the column ID in which the seat reserved is located
nwc_reserved	time	time		not null		Stores the starting time of the showing reserved
nwc_reserved	day	date				Stores the day of the showing

4. PHP
   o Functions Description:
      i. New Membership Screen
         o **AddMember.php**: Receives information to add a member to an account. If the user is not the primary member of the account, then the page only displays a button back to the main menu and a message.
         o **AcctCreate.php**: Creates a random account number and uses the information from signup.php to attach a member to it. That member is marked as the primary user.

      ii. Login
         o **UserIndex.php** and **EmplIndex.php**:
            • User input and checks it against the tables with a query. If the email of the user is incorrect it then queries the tables of the emloyee database to check if User is an employee.
            • If user is neither employee or member than the user is told that they have entered the incorrect password.
            • If user is employee or member than the users data is then stored in a session variable and the user is sent to employee page or member page based on the verification.
            • User Index and Employee index: Mostly html and css code it contains a simple if and else statement to determine if user is logged in or not. The user in the current session can either be logged in or not. If user is logged in then he is sent to Member page or Employee paige based on verification. If user is not logged in then user is sent back to login.php to login or Sign-up.

- o **Sessioncore.php**:
  - Starts a session on server that isn't killed until logout.php is referenced.
  - Also includes a login function to determine if user is logged in or not and function to determine if user is a valid member or if membership has expired. Included as well is a function to find any attribute within a tuple of any specific user.
  - This function returns the attribute of user. Session data from current session is used within these functions.

- o **Connecttophp.php**: to connect user to mysql server.

iii. Movie Listing
- o **nwc_movie_list_complex.php**: Input is complex name, output is a list of all movies, theaters, start time for that complex. If user selects list all, it will query all complexes from showing table.

iv. Seat Reservation
- o **display.php**: The display script is used to allow the user to select which movie,where and when he/she would like to reserve for.
- o **Display_showing_info.php**: Displays the list of all the showings that meet the criterias entered by the user previously in display.php and allow the user to select one of them.
- o **Display_movie_selected.php**: Displays the seating chart of the specific showing selected by the user on the previous page and allow the user to pick one of the avalaible seats if any.

o **Reservation_confirmation.php**: Displays reservation information to the user

  v. Movie Viewing History
- **viewhistory.php**: Displays the history of an account or individual member.

  vi. Schedule Movies
- **nwc_schedule_movies_adding.php**: Receives inputs and display the table with the movie added. It returns the messages when inputs are invalid. It also checks whether the adding movie has already been added in the database or not, if yes, it returns a message to warning that the adding movie already is in the database, otherwise, it will goes ahead to add this movie to the database.

- **nwc_schedule_movies_scheduling.php**: Receives inputs and display the table corresponding to the movie scheduled. If the adding movie does not exist in the database, a warning message is returned. All inputs are required to fill out and it also checks the input validation. It can prevent the time confliction when scheduling two movies in the same theater in the same complex either in the same time or within 30 minutes.

  vii. Extending Membership

- **extendmembership.php:** This file allows users to extend their memberships. It takes the total number of people within the account and multiplies it by the

difference between the current expiration date and new expiration date to find the price.

viii. Add, Delete, Update
- o **maintenance.php**: menu for adding, deleting, and updating the database.
- o **nwc_maintenance.php**: select options
- o **nwc_maintenance_Complex.php**: for add/delete/update complexes.
- o **nwc_maintenance_Employees.php**: for add/delete/update employees.
- o **nwc_maintenance_Member.php**: for add/delete/update members.
- o **nwc_maintenance_Membership.php**: for add/delete/update membership.
- o **nwc_maintenance_Movie.php**: for add/delete/update movies.
- o **nwc_maintenance_Reservation.php**: for add/delete/update reservations.
- o **nwc_maintenance_SeatingChart.php**: for add/delete/update seating chart.
- o **nwc_maintenance_Showing.php**: for add/delete/update shows.
- o **nwc_maintenance_Theater.php**: for add/delete/update theater.

o   Interaction Description:
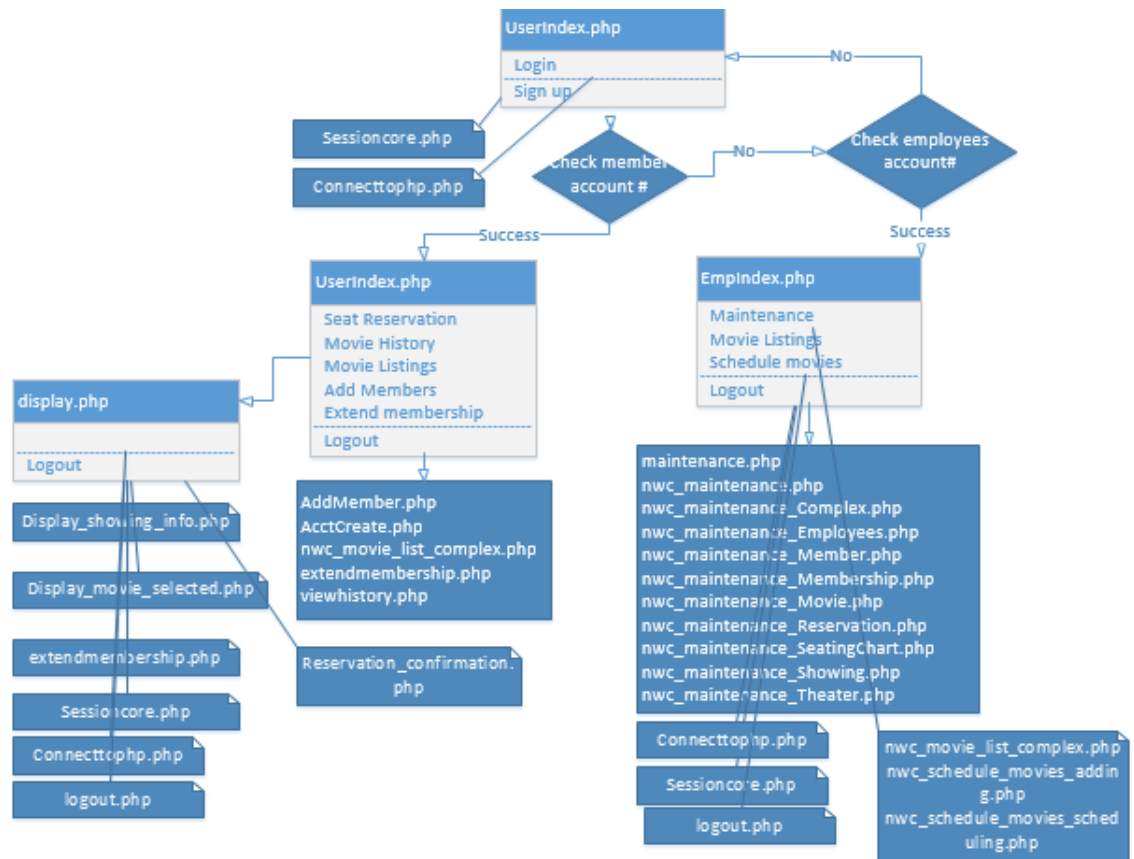
5. User's guide:
   i. New Membership Screen
      o *General Description:*

         ▪ New users enter information to create a
           primary member.
         ▪ The selected length creates an expiration date
           starting from the current day.
         ▪ A random account number is generated and
           given to the user once everything is registered.

      o *Instructions:*

Please enter all fields to have your membership created.

Name
Brandin

Age
21

Address
1793 Bushwoolie Lane

Phone
3371234567

Email
wearefighters@yahoo.com

Length
180 Days ⬍

Password

Register

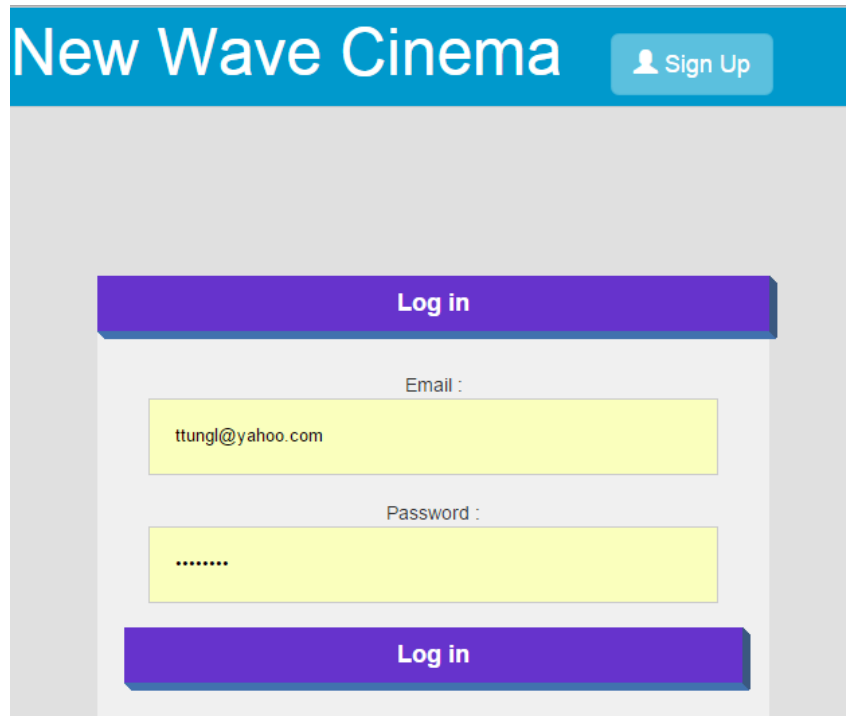Figure: Fill out all fields and hit submit.

Account successfully created.
Your credentials have been sent to the e-mail you provided.
Account Number: 903625728
Password: thisisatest

Brandin is the primary user for this account.
Please keep track of these, as they are required in order to use our services.

Log In

Figure: Success Page

ii. Login

    o User page and Employee page: The main pages for Member or Employee depending on verification. Reroutes user to different areas of web page. Reroutes user to all options available for user verification and gives user option to log out. (kill session)

iii. Movie Listing
    o *General description:*
- Users can choose either a specific complex or all complexes to see the list of movies.
- For a specific complex, it displays a list of the movie name, the theater, and the show time.
- For a list of all complexes, it displays the complex's name and its address following by the

list of movies name, the theaters, and show times of that complex.
- After viewing the list, users can click on either the link "Movie listing" to go back the movie listing page to select another options.

o *Instructions:*

Movie Listing

Notice: In order to request a list of movies from a specific complex or all complexes, you can select either a specific complex or all complexes option as below.

Select a complex:

Los Angeles ▼

Submit

Figure: Select a complex.

Movie title	Theater	Start time
Cinderella	room1	19.00
Get Hard	room1	18.00
Get Hard	room1	20.00
Insurgent	room1	21.00

Figure: Display a selected complex.

Movie Listing

Notice: In order to request a list of movies from a specific complex or all complexes, you can select either a specific complex or all complexes option as below.

Select a complex:

List all complexes ▼

Submit

Figure: Select a list of all complexes.

Complex name	Address	Movie title	Theater	Start time
Lafayette	1400 Congress St	Cinderella	room1	20.00
Lafayette	1400 Congress St	Cinderella	room2	19.00
Lafayette	1400 Congress St	Cinderella	room3	19.00
Lafayette	1400 Congress St	Furious 7	room1	18.00
Lafayette	1400 Congress St	Furious 7	room2	18.00
Lafayette	1400 Congress St	Furious 7	room2	20.00
Lafayette	1400 Congress St	Get Hard	room1	21.00
Lafayette	1400 Congress St	Get Hard	room2	21.00
Lafayette	1400 Congress St	Get Hard	room3	20.00
Lafayette	1400 Congress St	Insurgent	room1	19.00
Lafayette	1400 Congress St	Insurgent	room3	18.00
Lafayette	1400 Congress St	Insurgent	room3	21.00
Los Angeles	1586 Hollywood St	Cinderella	room1	19.00
Los Angeles	1586 Hollywood St	Get Hard	room1	18.00
Los Angeles	1586 Hollywood St	Get Hard	room1	20.00
Los Angeles	1586 Hollywood St	Insurgent	room1	21.00
New Orleans	2451 Bourbon St	Avengers	room1	18.00
New Orleans	2451 Bourbon St	Cinderella	room1	19.00
New Orleans	2451 Bourbon St	Cinderella	room2	18.00
New Orleans	2451 Bourbon St	Cinderella	room2	21.00
New Orleans	2451 Bourbon St	Cinderella	room3	18.00
New Orleans	2451 Bourbon St	Cinderella	room4	20.00
New Orleans	2451 Bourbon St	Furious 7	room4	18.00

Figure: Display a list of all complexes and its address following the titles, theaters, and show times for that complex.

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iv. Seat Reservation
- o Users can choose a movie, complex, and date for watching the movie. If there is no show available, it will display the alternative shows for selecting.
- o Users can reserve a seat at a time. On the map, red seats are sold out, otherwise, green will be displayed.
- o Restriction for different types of movies for different age ranges.

v. Movie Viewing History
- o *General Description:* Users can view a list of movies that have been viewed on their account. Allow user to separate by member. Users of any ranking can use this feature.
- o *Instructions:* Select a member or all members from a menu.

vi. Schedule Movies
- o *General description:* Employees can select to either add the movies or schedule the shows in this page.

  - For **adding the movies**, all required items are necessary to be filled, including the movie title, stars, rating, and description, runtime of the movie adding.
  - Notice that rating option is a combo box where employees can choose the type of movie adding. PG-13 is default if employees don't select this option.
  - After filled, and submitted, it will display a

result of the movies in the movie table.
- For **scheduling the shows**, employees can type the movie title they want to schedule for the shows.
- If the movie is not matched to the movie table, it displays a message to notify that the movie does not exist in the database, otherwise, it displays the result of before scheduling the show and after scheduling the show.
  - ◆ All combo boxes for complex, theater, and start time are used to add a show scheduling for a movie.
  - ◆ It also checks the time conflicts between 2 movies in a theater of a complex.

o *Instructions:*

  ▪ ***Adding the movies***

Schedule Movies: Adding the movies

Movie title: Avengers

Stars: Tom Hands

Rating: PG-13 ▼

Description: This is a science fiction film.

Submit

Figure: Adding a movie.

- The movie is available in the database.
*Please go back to check again.

Figure: Notice of "Avengers" is already available

in the database.

Schedule Movies: Adding the movies

Movie title: Expendable

Stars: Tom Cruise

Rating: PG-13 ▾

Description: This is an action film.

Runtime (hh.mm): 03.15

Submit

Figure: Add a new movie.

Title	Stars	Rating	Description	Run Time
Avengers	Robert Downey	PG-13	When Tony Stark tries to jumpstart a dormant peacekeeping program	2.22
Cinderella	Liny James	G	When her father unexpectedly passes away	1.45
Expendable	Tom Cruise	PG-13	This is an action film.	3.15
Furious 7	Vin Diesel	R	Deckard Shaw seeks revenge against Dominic Toretto and his family for the deat.	2.17
Get Hard	Kevin Hart	PG	When millionaire James King is nailed for fraud	1.40
Insurgent	Hailene Woodley	PG-13	Beatrice Prior must confront her inner demons and continue	1.59

Figure: Display movie added into the movie table.

Schedule Movies: Adding the movies

Movie title: |

Stars: [_____] ⚠ Please fill out this field.

Rating: [PG-13 ▾]

Description: [_____]

Runtime (hh.mm): [_____]

[Submit]

Figure: All items filled are required.

- ***Scheduling the shows***

Schedule Movies: Scheduling the shows

Movie title: |

Complex: [Lafayette] ⚠ Please fill out this field.

Theater: [room1 ▾]

Start time: [8.00 ▾]

[Submit]

Figure: The field is required to fill out.

Schedule Movies: Scheduling the shows

Movie title: [Taken 4]

Complex: [New Orleans ▾]

Theater: [room1 ▾]

Start time: [8.00 ▾]

[Submit]

Figure: Type a movie that does not exist in the database.

The movie does NOT exist in the database.
*Please check all stuffs again.

Figure: Display a message to notify that the movie does not exist in the database.

Cinderella	room3	Lafayette	19.00
Cinderella	room3	New Orleans	18.00
Cinderella	room4	New Orleans	20.00
Expendable	room1	New Orleans	8.00
Furious 7	room1	Lafayette	18.00
Furious 7	room1	New York	18.00
Furious 7	room1	New York	20.00

Figure: A show scheduled for a movie.

Schedule Movies: Scheduling the shows

Movie title: Expendable

Complex: New Orleans ▼

Theater: room1 ▼

Start time: 8.30 ▼

Submit

Figure: check time conflict.

- Schedule conflicted.
*Please check all stuffs again.

Figure: Notification for time conflict of
scheduled show within 30mns.

Cinderella	room3	Lafayette	19.00
Cinderella	room3	New Orleans	18.00
Cinderella	room4	New Orleans	20.00
Expendable	room1	New Orleans	8.00
Expendable	room1	New Orleans	9.00
Furious 7	room1	Lafayette	18.00
Furious 7	room1	New York	18.00
Furious 7	room1	New York	20.00

Figure: successfully schedule a show.

vii. Extending Membership
   o *General Description:* This page is used to change the
     user's membership expiration date to a later point.
     This page can only be accessed by logged in,
     primary users. A table displaying the old date, the
     new date, and the price is shown upon submission.

   o *Instructions*: Select a number of days from the drop
     down list and select submit.

viii. Add, Delete, Update
   o *General description:* This page is used to maintain
     the database by allowing the admins to add, change
     or delete data from every table. Only users who
     logged in as admin will have access to this page. On
     the screen, three actions are given as options for the
     first drop down menu – Add, Delete, and Update.
     The default selected option is Add. A second drop

down menu consists of every table in the database. The admin must select a table to add/delete/update data or the default selected table will be Complex. Admin confirms his choices by hitting the submit button.

o *Instructions*

Admin Mode: Database Maintenance

Return to the main admin page

Action: [Add   ▲▼]

Table: [Complex   ▲▼]

[Submit]

[Log Out]

● If action **Add** is chosen, admin will be directed to a page that allows him to add a new row that has every single attribute that corresponds to the table that he selected. Leaving any field empty is not allowed.

Adding/Deleting/Changing Table Complex

Complex Name: [   ]

Complex Address: [   ]

Complex Phone Number: [   ]

Add

- If action **Update** is chosen, admin will be directed to a page that allows him to update all data in the table that he selected. In this page, admins are required to enter old and new attributes for the primary keys.

- Restriction: Every field must not be empty in this page. That means if the admin only wants to update a single attribute in a row, he must also enter all other attributes without changing them.

Adding/Deleting/Changing Table Complex

Old Complex Name: [   ] New Complex Name: [   ]

New Complex Address: [   ]

New Complex Phone Number: [   ]

Update

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- If action **Delete** is chosen, admin will be directed to a page that allows him to remove a row identified by the primary key(s) in the table that he selected.
- Restriction: It is required for the admin to enter only the primary key attribute(s), it is not possible for the admin to remove a row by entering an attribute that is not the primary key of that table.

Return to the main maintenance page

Adding/Deleting/Changing Table Complex

Complex Name: [   ]

[Delete]

Referential integrity has been taken into account in these actions. For example, deleting a complex will also remove the rows in other tables that it appeared in. Also, trying to add a theater into a non-existing complex is not possible.

End of Report