

Web Programming Languages
CS 6314.002
Project Title : Movie Theatre
Website Name : Dallas Movie Theatre
Due on Sunday Dec 6, 2020 at 11:59pm
Instructor: Nurcan Yuruk

Team 28
Varadhan Ramamoorthy (vrr180003)

Contents

1	Project Description and Assumptions	3
2	Database Design (MongoDB data model)	4
3	Languages/Framework used	6
4	Screen shots of main functionalities	6
5	Team members	9
6	Work division	9

1 Project Description

The Dallas Movie Theatre App is an application designed to allow customers to purchase tickets to movies at the Dallas Theatre. Theatre management can also use this app to manage the scheduling of movies by performing adding, updating, and removing actions. The following are the functionalities of the application:

1. The customers can visit the site and register with their details (First name, Last name, username, etc). They can then login with the registered username and password.
2. After the login, The customer can search and filter (by movie genre) from the list of all the available movies in the theatre.
3. Customers can add tickets to the cart for a show by selecting the date and showtime for a movie.
4. Customers can delete and update the quantity of the movie items on the cart page.
5. When customers decide to purchase the ticket, they can check out from the cart.
6. Customers can view their successful booking on the Transaction history page.
7. Theatre management can login as admin and can create, update, or remove showings to indicate which movies are available in the theatre.

2 Database Design (MongoDB data model)

DB Name : movie-theater

Collections : users, movies, movie-shows, user-cart, bookings (JSON file of collections are included in the project)

users

```
{
  "_id" : ObjectId("5fc598d30d2ac34e6a5bece3"),
  "username" : "jdoe",
  "password" :
"$2a$12$C1cf2uHykbY8evBy1PFESO.IPFy/KvMR4BS8SGmD0cf4xY1409s2C",
  "email" : "johndoe@gmail.com",
  "firstname" : "John",
  "lastname" : "Doe",
  "type" : "N"
}
```

movies

```
{
  "_id" : ObjectId("5fc814e1b6799705c9bd71a9"),
  "title" : "Mulan",
  "genre" : "action",
  "length" : "2h",
  "synopsis" : "To save her ailing father from serving in the Imperial Army, a
fearless young woman disguises herself as a man to battle northern invaders in China.",
  "image" : "mulan.jpg",
  "availableUntil" : ISODate("2021-02-23T00:00:00.000Z"),
  "showTimings" : {
    "1" : "01:00 pm",
    "2" : "06:00 pm"
  },
  "status" : "A"
}
```

movie-shows

```
{
  "_id" : ObjectId("5fc6f80b03e39747928db790"),
  "movie_id" : "5fc5ea92d09afb893c420e7a",
  "showTiming" : "01:00 pm",
  "capacity" : "60",
  "totalAvailableSeats" : "60",
  "screenNo" : "A1",
  "price" : "23"
}
```

user-cart

```
{
  "_id" : ObjectId("5fc4a26b5c36b64048b35018"),
  "user_id" : ObjectId("5fc4a26b5c36b64048b35017"),
  "cart" : [
    {
      "show_id" : "5fc82a444fa9493f48fcf8f6",
      "qty" : "3",
      "show_date" : "2020-12-23"
    }
  ],
  "lastUpdated" : ISODate("2020-11-30T07:42:35.906Z")
}
```

bookings

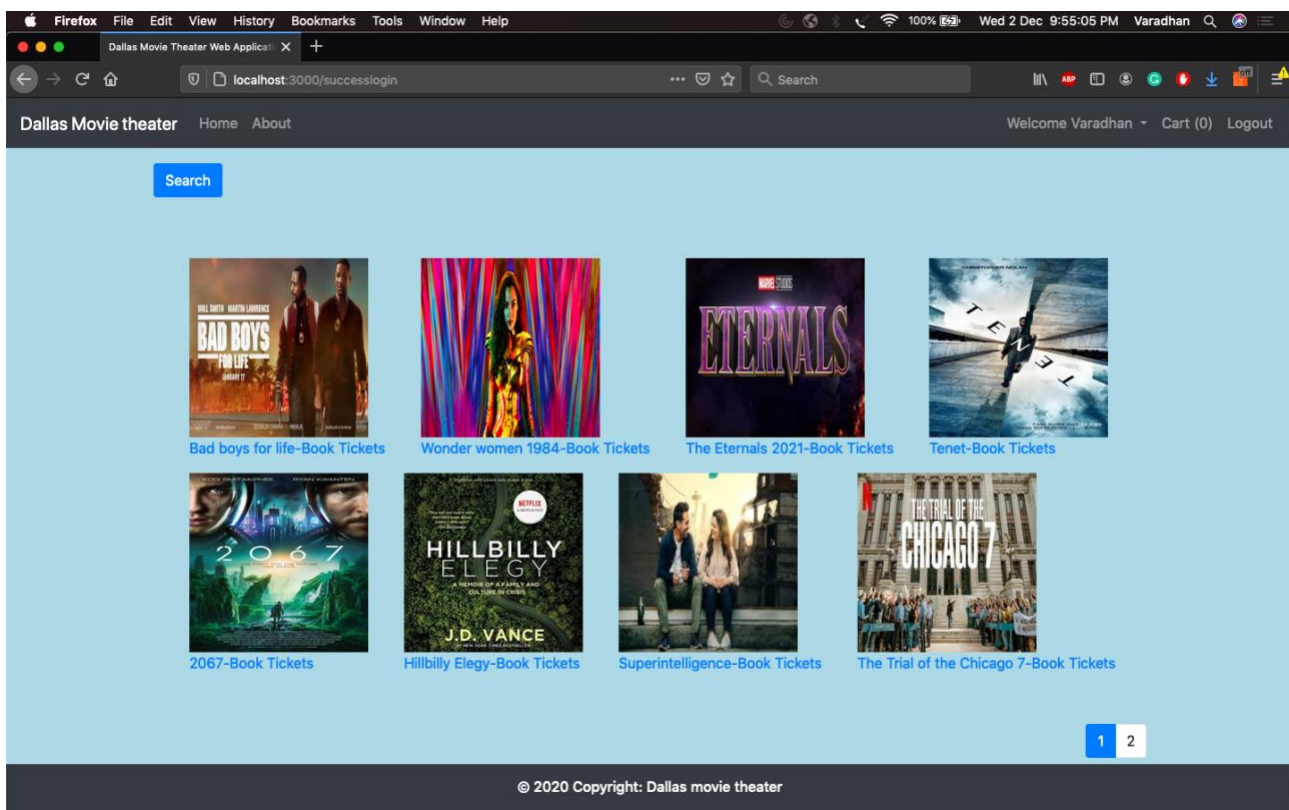
```
{
  "_id" : ObjectId("5fc82fbc4fa9493f48fcf917"),
  "user_id" : "5fc4a26b5c36b64048b35017",
  "show_id" : ObjectId("5fc82b474fa9493f48fcf900"),
  "qty" : "1",
  "show_date" : "2020-12-22",
  "total_price" : 22,
  "booking_date" : ISODate("2020-12-03T00:22:20.664Z")
}
```

3 Languages/Framework used

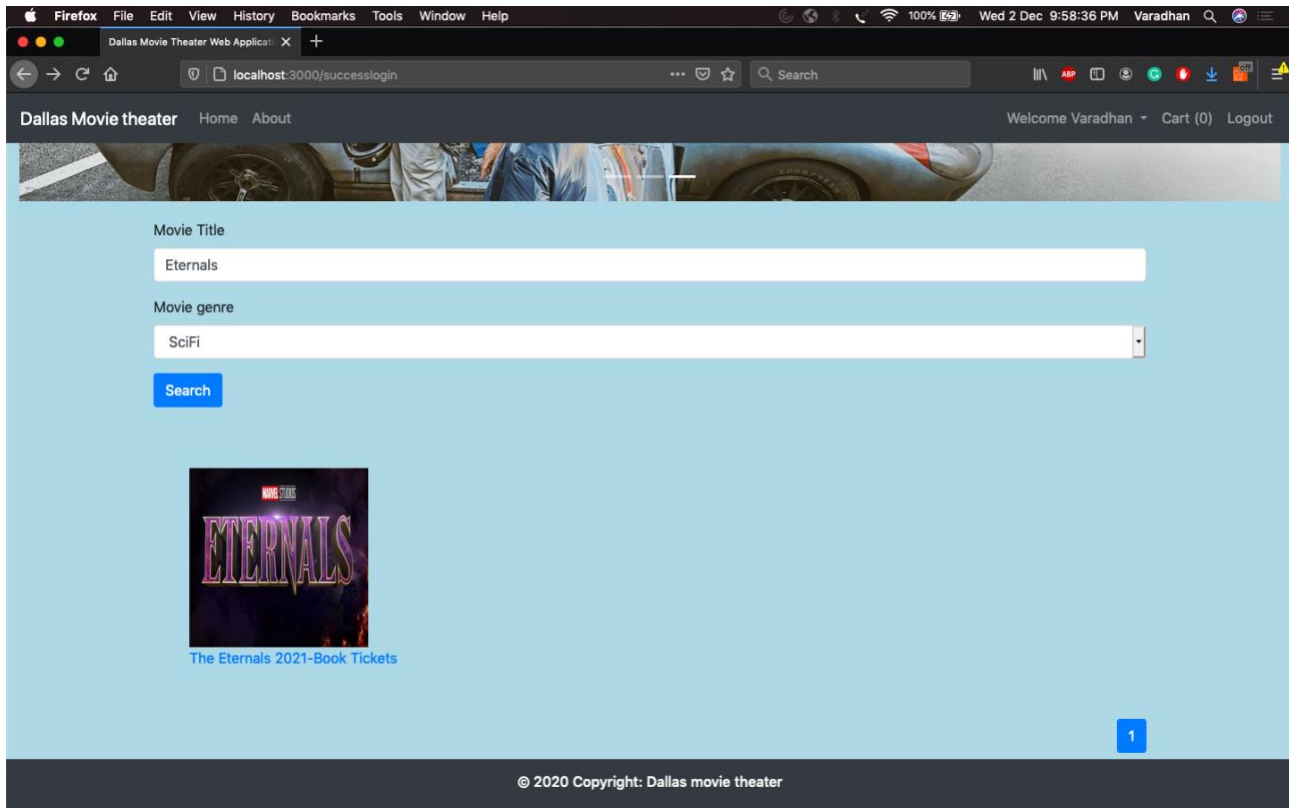
- Front-end : Bootstrap and jQuery (for Validation)
- Back-end : Node/Express
- Database : MongoDB
- Web services : Express routes (RESTful api), AJAX

4 Screenshot of main functionalities

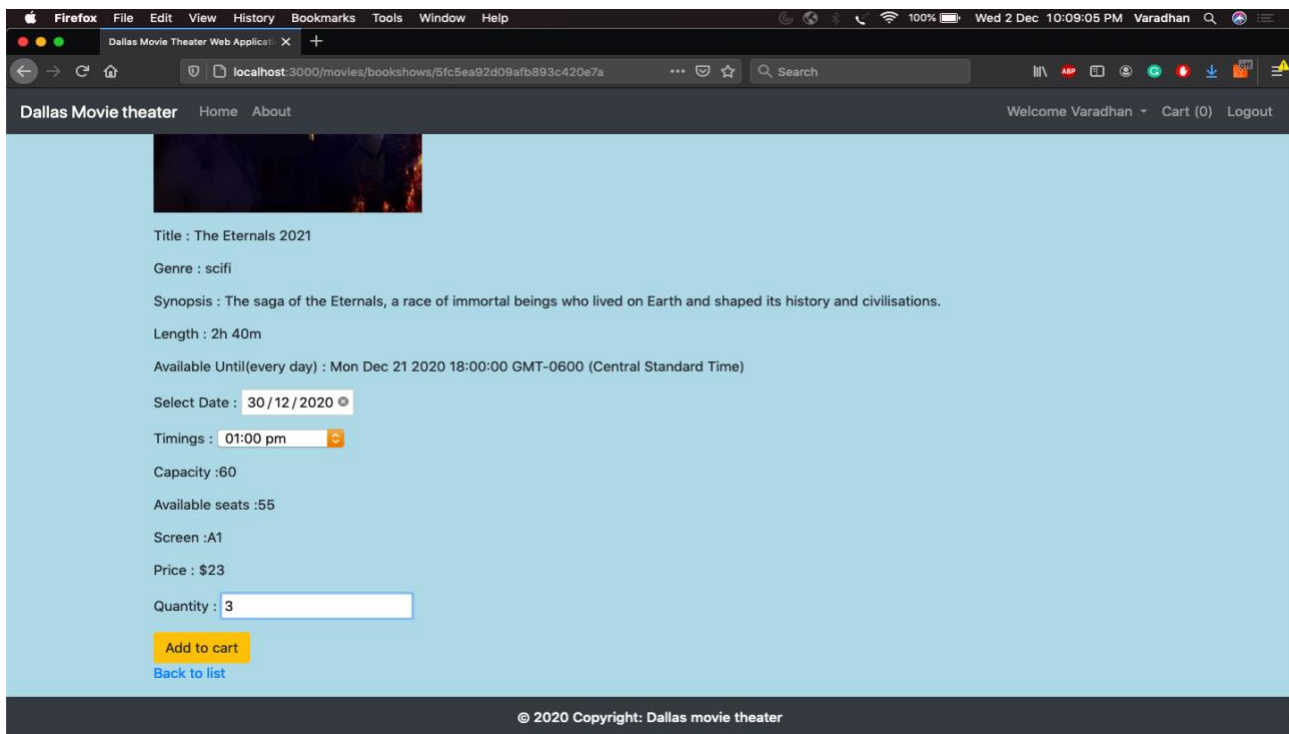
- **List of available movies** in the theater for users to book with **pagination**.



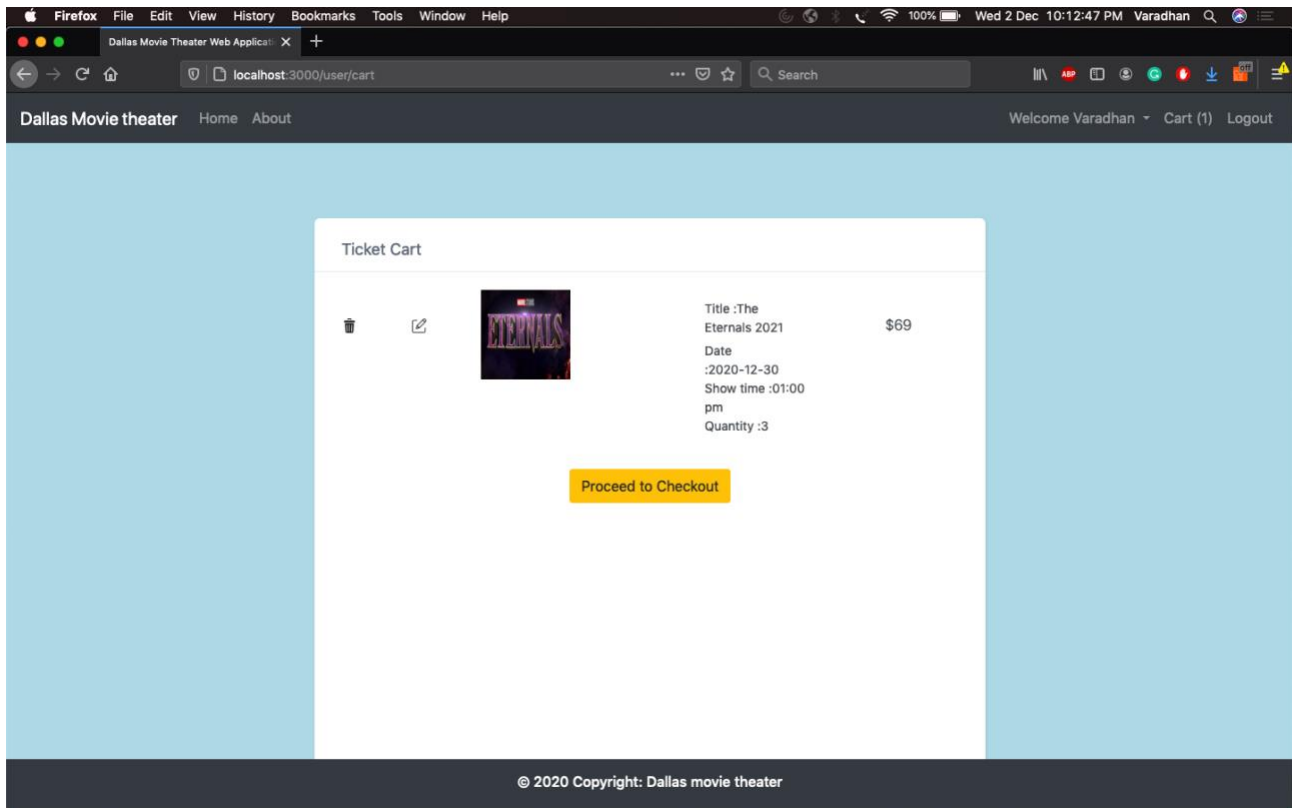
- **Search with filtering** (based on genre) on available movies in the theater.



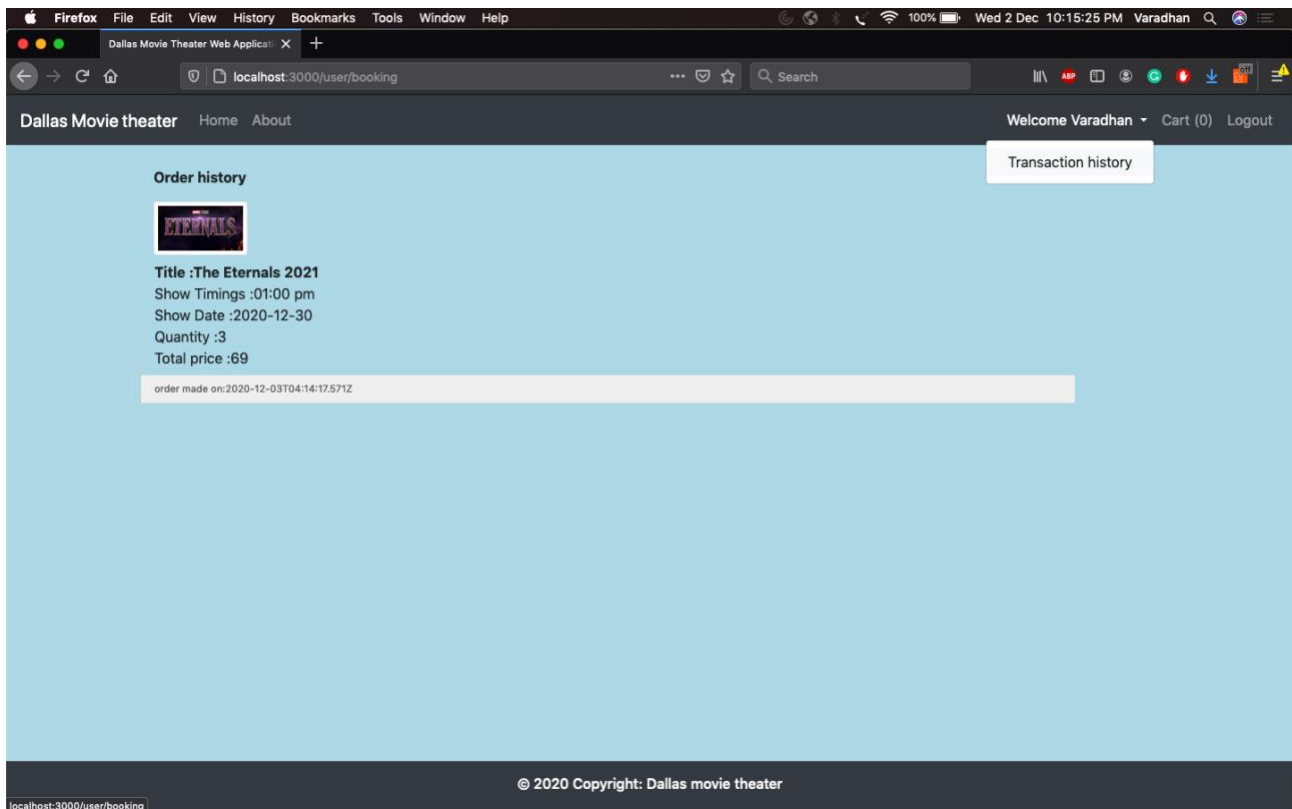
- User able to **add movies to the cart** (selecting date, show time and quantity)



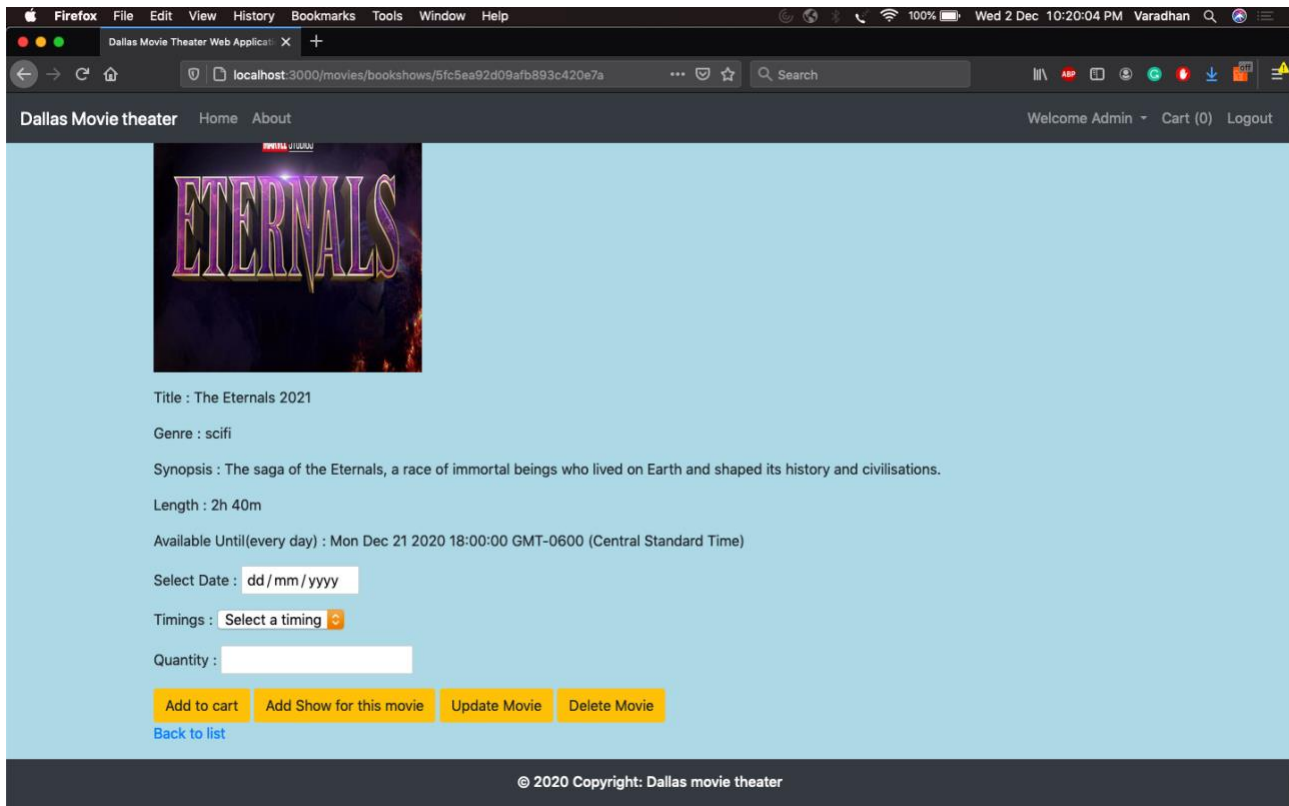
- **User's cart** with options to **delete** the movie from the cart and **update** the quantity on the movie.



- **Transaction history** once user checks out and confirms the booking.



- Admin's control to **add movies**, add shows for a movie, **update movie** and **soft delete** a movie.



5 Team Members

Name : Varadhan Ramamoorthy
Net Id : verr180003

6 Work division

I am the only individual in the team and contributed to the following tasks:

- Designed and modelled database using MongoDB
- Implemented user registration and login (including hashing password and other validations)
- Implemented Home page that lists all the movies available in the theatre
- Implemented Movie search and filtering by genre with pagination (Page size of 8)
- Implemented User booking page where the user adds a movie to the cart
- Implemented cart page where user can delete/update movie items in the cart
- Implemented Transaction history page that displays all the booked movies by user
- Implemented admin functionalities(add/update/soft delete movie)