

# Book My Show -

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## Group members:

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## Instructed By:

Sahely Bhadra  
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## Contributions:

Week 5:(Graphical Interface)

Front End : Vishnu Teja Vallala

Backend : NVS Vishnu Kanth Reddy, Gujjula Badrinath Reddy

Week 6:

BCNF Normalization: Equal contribution from all the team members

Login Page: NVS Vishnu Kanth Reddy, Gujjula Badrinath Reddy

Registration Page and Logout: Vishnu Teja Vallala

Customer HomePage, My Account: NVS Vishnu Kanth Reddy, Gujjula Badrinath Reddy

## Project Plan

The Project will try to mimic the famous online booking app bookmyshow.

Our Database mainly contains two types of users :

- Movie Theatre Owner
- Ticket Purchaser

## User Level Organization:

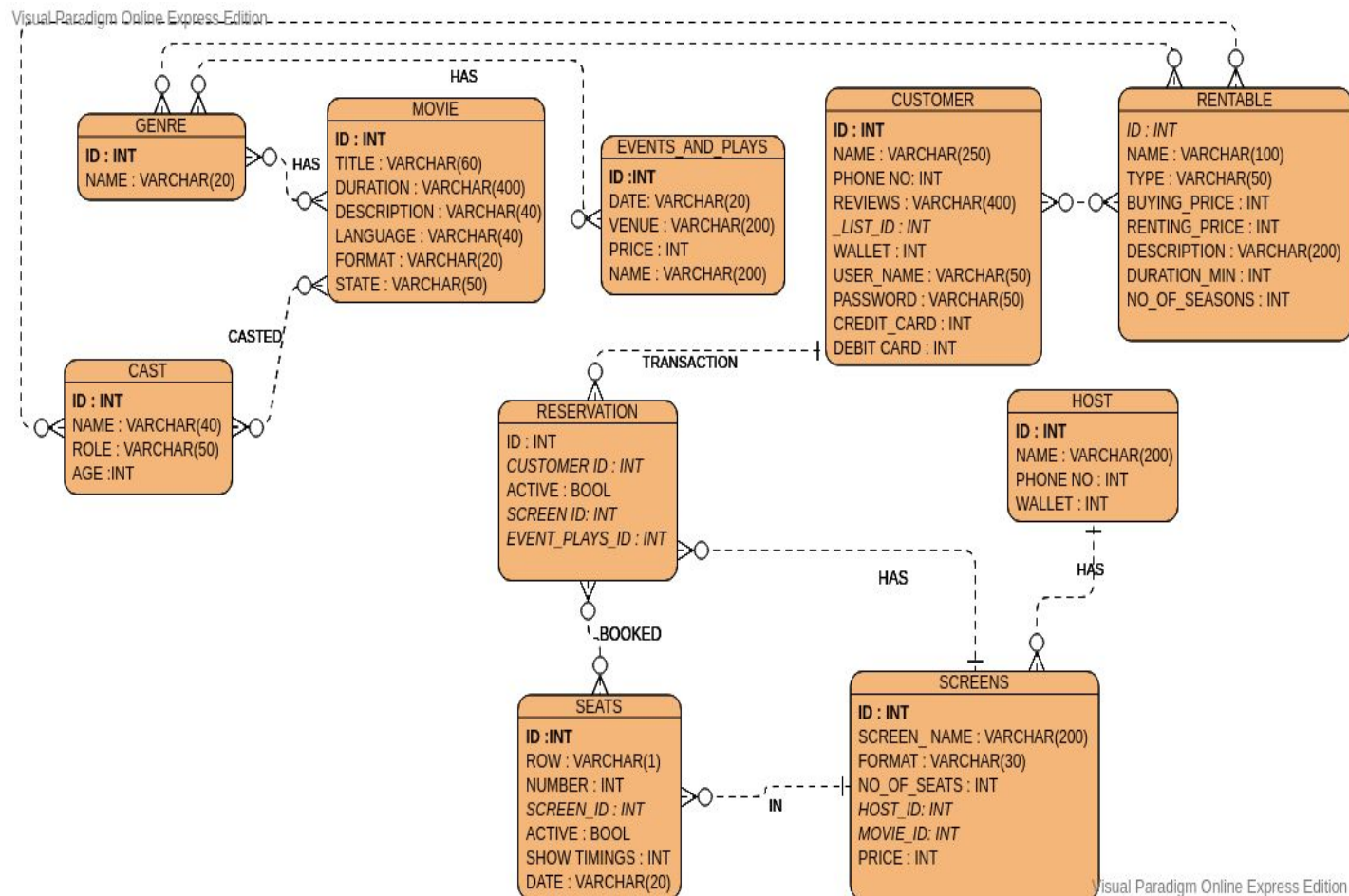
Movie Theatre Owners:

- They could register and enroll their movie and theatre.
- They can also fill in the details of the movie like cast , director, language, ticket cost
- There can be multiple screens in a single theatre, so they can give different movies for different screens for different show timings.

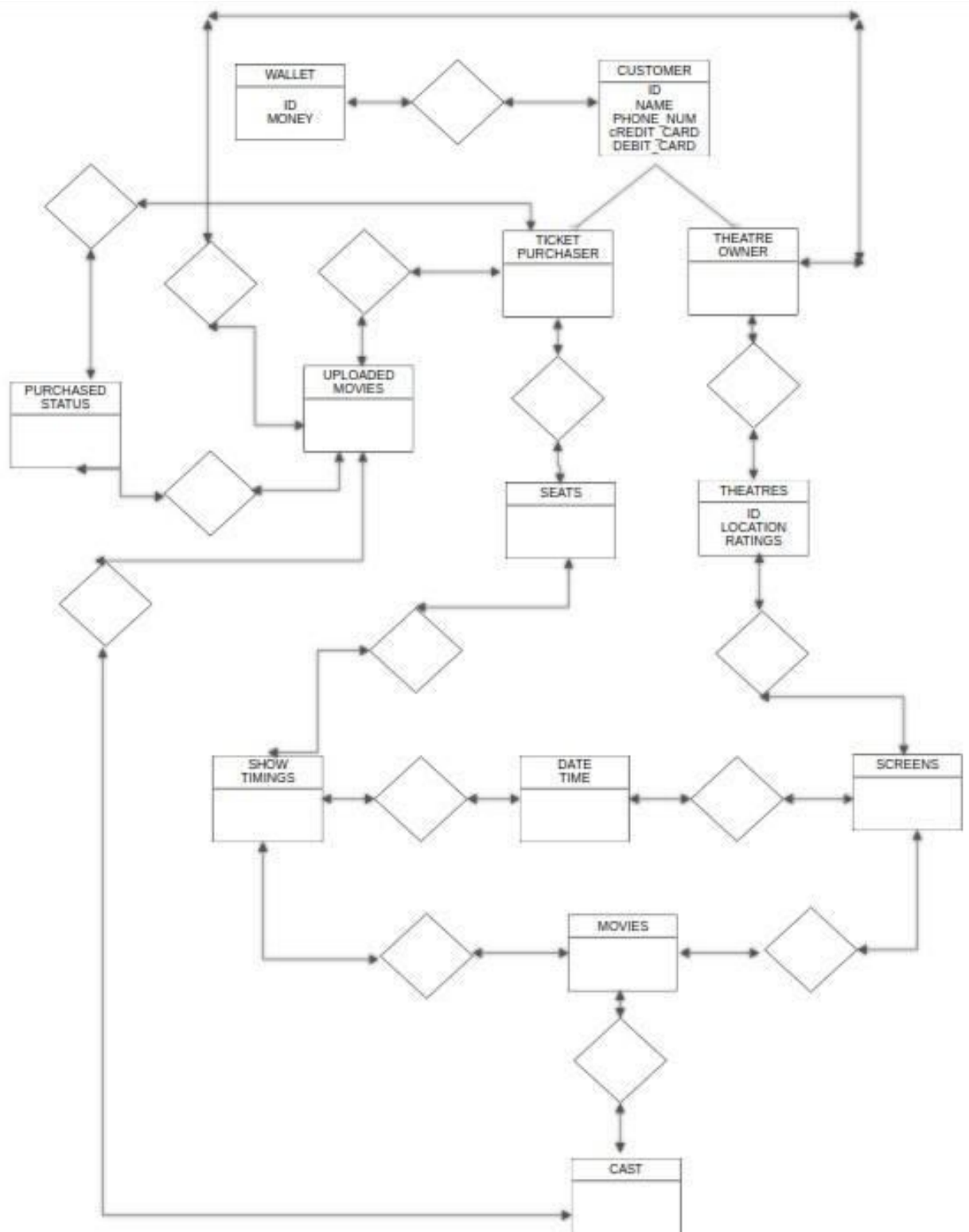
### Ticket Purchaser:

- They can either register or enter as a guest.
- If the user registers, then he/she will have a e-wallet and proceed to book tickets. They can update their profile and add money to their wallets and can use it to book tickets.
- The user can choose a movie and a theatre based on various filters like movie name, place, theatre name, cast, director etc..
- They can rent as well as buy movies online with the money in their wallet. The rented movies will last for a particular number of days.

### Updated Design of ERD as a Developer:



## PREVIOUS Design of ERD as a Developer:



## Roles:

- Customer:
  - multiple users can have the role of Customer
  - They can only book movies,events and rent movies and have access to their own history and wallet
  - These users cannot host movies nor can look into other users info.
- Host :
  - multiple hosts can have the role of Host
  - They can host their movie or events and have access on their screens and theatre
  - Can sell their movies or series through rentables
- Admin : badri,vishnu,v\_vishnu,root..

## Views:

- Trending:
  - Based on movie release date, we can decide whether a movie is trending, coming soon etc...
- Filter Movies to book tickets By :
  - Cast,Language,Format,Show Timings and Date,Location,Genre,Theatre
- Filter Events and plays:
  - Location,Price,Date,Genre
- Show Customer's Booking history:
- Filter Rentable Movies and Series by:

- Movie name, tv series name, renting price, buying price,format,duration

## Triggers:

- before\_reservation\_update:

- When a customer confirms a booking, corresponding ticket should be blocked and ticket price should be deducted from the customer wallet.
- If the customer wallet has insufficient funds the same will be conveyed.
- The deducted amount will be accounted to the host account and some predefined percentage of money will be added automatically to the administrator from host for each booking

- Before\_screens\_update:

- When a host updates existing movie in a particular screen and if that movie is not in the movie table it is added to the table and cast is also updated if needed.

- Before\_reservation(cancel)\_update:

- When a customer cancels a booking, the reservation is made invalid and seat is unblocked and the customer is refunded half of the ticket price from host account.
- And the cancellation is possible only at least one hour before the show timing.

## Graphical Interface:

### Home Page:

BookMyShow
Home Movies Events and Plays About Login Search here Search


Language	Genre	Format	Cast	Submit
<input type="checkbox"/> Telugu	<input type="checkbox"/> Thriller	<input type="checkbox"/> 2D	<input type="checkbox"/> Prabhas	
<input type="checkbox"/> Hindi	<input type="checkbox"/> Action	<input type="checkbox"/> 3D	<input type="checkbox"/> Rana	
<input type="checkbox"/> English	<input type="checkbox"/> Adventure		<input type="checkbox"/> Richa Gangopadhyay	

### Clicking on the Movies Button in Navigation Bar:(Displays all the movies in the DB)

BookMyShow					
Home Movies Events and Plays About Login Search here Search					
Title	Duration	Description	Language	Format	Release Date
Bahubali The Begining	150	self explanatory	telugu	3D	2017-04-23
Bahubali The Conclusion	150	answers the famous question, why did kattappa kill bahubali?	telugu	3D	2018-04-28
mirchi	148		telugu	2D	2014-03-22
mirapakay	150		telugu	2D	2014-03-23
barfi	152		hindi	2D	2014-03-23
barfi	152		hindi	2D	2014-03-23

## Selecting Multiple Filters :

*BookMyShow*
[Home](#)
[Movies](#)
[Events and Plays](#)
[About](#)
[Login](#)



Language	Genre	Format	Cast	Submit
<input checked="" type="checkbox"/> Telugu <input checked="" type="checkbox"/> Hindi <input type="checkbox"/> English	<input checked="" type="checkbox"/> Thriller <input type="checkbox"/> Action <input type="checkbox"/> Adventure	<input type="checkbox"/> 2D <input type="checkbox"/> 3D	<input checked="" type="checkbox"/> Prabhas <input checked="" type="checkbox"/> Rana <input type="checkbox"/> Richa Gangopadyay	

## Shows all the movies that satisfies the selected filters

<i>BookMyShow</i> <a href="#">Home</a> <a href="#">Movies</a> <a href="#">Events and Plays</a> <a href="#">About</a> <a href="#">Login</a> <input type="text" value="Search here"/> <input type="button" value="Search"/>					
Title	Duration	Description	Language	Format	Release Date
Bahubali The Conclusion	150	answers the famous question, why did kattappa kill bahubali?	telugu	3D	2018-04-28
mirchi	148		telugu	2D	2014-03-22



## BCNF Normalization:

- A relation schema  $R$  is in BCNF with respect to a set  $F$  of functional dependencies if for all functional dependencies in  $F^+$  of the form

$$\alpha \rightarrow \beta$$

where  $\alpha \subseteq R$  and  $\beta \subseteq R$ , at least one of the following holds:

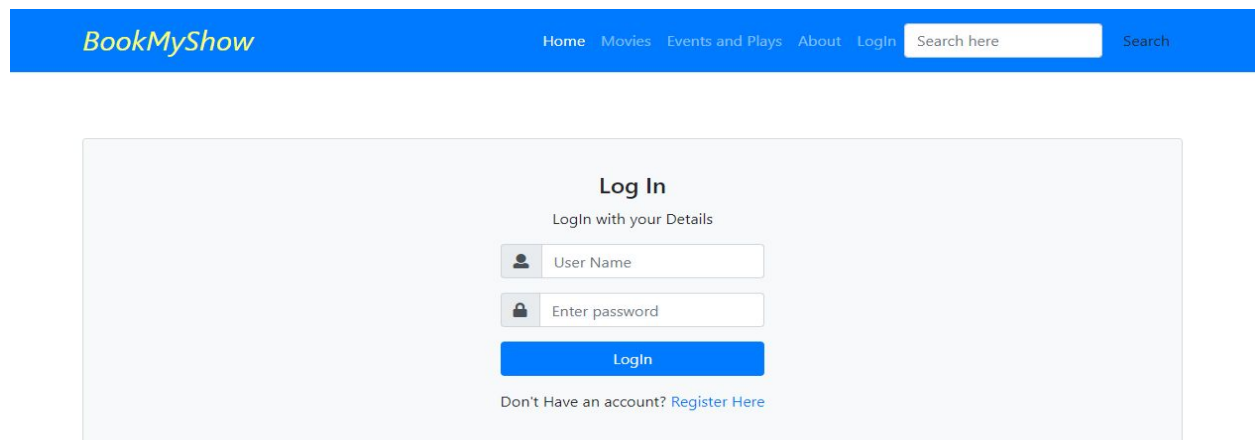
- $\alpha \rightarrow \beta$  is trivial (i.e.,  $\beta \subseteq \alpha$ )
  - $\alpha$  is a superkey for  $R$
- Our design of the database is such that every column of the table is only dependent on the **primary key** of that table.
  - For example consider the table **customer**(ID,name,phone\_no,wallet,user\_name,password,credit\_card,debit\_card) each and every row is dependent on column ID i.e it is the primary key
  - If there is a functional dependency  $\alpha \rightarrow \beta$  in a table where  $\alpha, \beta$  are columns of that table, then our design inherently included them being in two different tables connected via a **foreign key** and making sure that column being referenced is kept as primary key in the other table.
  - For Example consider these two tables from our database **screens**(screen\_id,screen\_name,format,no\_of\_seats,host\_id,movie\_id,theatre) and **movie**(movie\_id,title,duration,description,language,format,release\_date). Now one movie can be screened in multiple screens ,but given a screen ,a unique movie is being played in that screen at any given moment. So this is clearly a case of functional dependency screen\_id -> movie\_id. So we have put them in two tables with the two columns screen\_id and movie\_id being the primary keys of their respective tables.
  - If there are two columns  $\alpha$  and  $\beta$  (primary keys) such that one value in  $\alpha$  can imply multiple values in  $\beta$  and one value in  $\beta$  can imply multiple values in  $\alpha$ , then they can neither be called as **functionally dependent nor independent**. In such cases to reduce the data stored and reduce the redundancy, we just stored  $\alpha$  and  $\beta$  (only the primary keys) in a separate relational table. So the redundancy corresponding to these two columns still exist, but the **redundancy** with other columns would not exist anymore.
  - For example consider the two tables **casts**(cast\_id,name,role,age,gender) and **movie**(ID,title,duration,description,language,format,release\_date). Now one cast member ,uniquely determined by the cast\_id, can be a part of multiple movies, similarly one movie,uniquely determined by the movie\_id, can have multiple cast members. So they are not dependent and were these two tables had been together

(without the cast\_id), even then the table would be in BCNF form but there would be data redundancy.

- So all our tables are **already** in BCNF form.

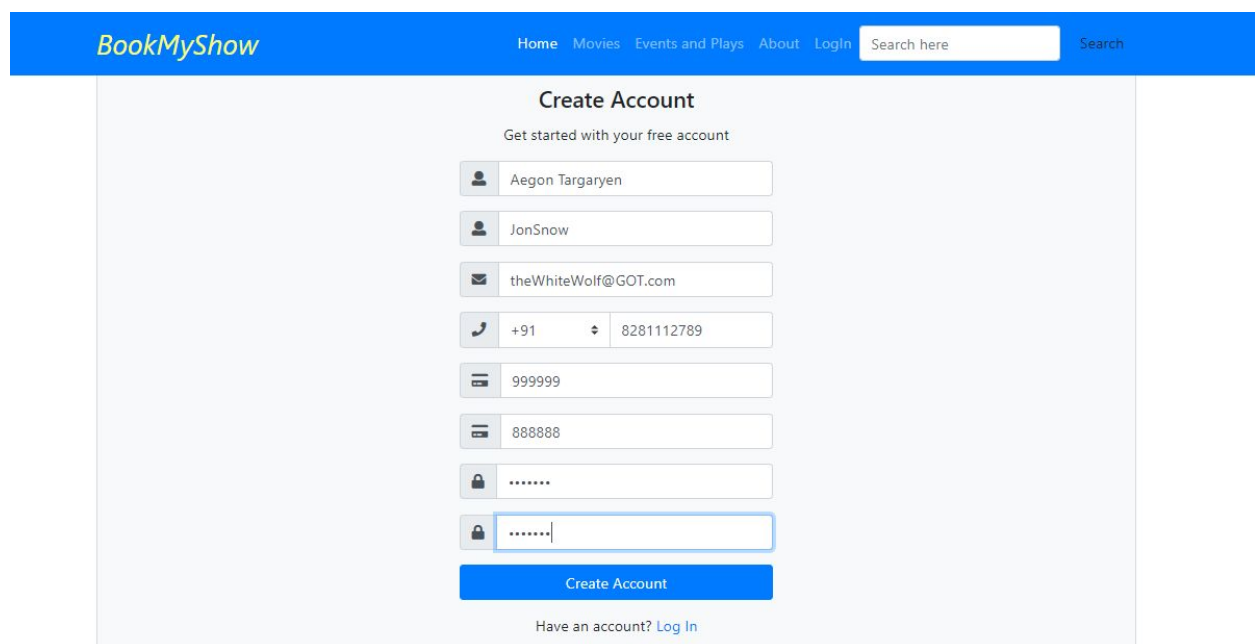
## Implement the Roles and Privileges:

### Customer Login:



The screenshot shows the 'Log In' page of the BookMyShow website. The header is blue with the 'BookMyShow' logo on the left and navigation links (Home, Movies, Events and Plays, About, Login) and a search bar on the right. The main content area is light gray and contains a 'Log In' section. It prompts the user to 'Login with your Details' and provides two input fields: 'User Name' and 'Enter password'. Below these fields is a blue 'Login' button. At the bottom of the section, there is a link that says 'Don't Have an account? Register Here'.

### Customer Registration:



The screenshot shows the 'Create Account' page of the BookMyShow website. The header is identical to the login page. The main content area is light gray and contains a 'Create Account' section. It prompts the user to 'Get started with your free account' and provides several input fields for registration: 'Aegon Targaryen' (first name), 'JonSnow' (last name), 'theWhiteWolf@GOT.com' (email), a phone number field with a dropdown for country code (+91) and a text field for the number (8281112789), a ZIP code field (999999), a street address field (888888), a password field (masked with dots), and a confirm password field (masked with dots). Below these fields is a blue 'Create Account' button. At the bottom of the section, there is a link that says 'Have an account? Log In'.

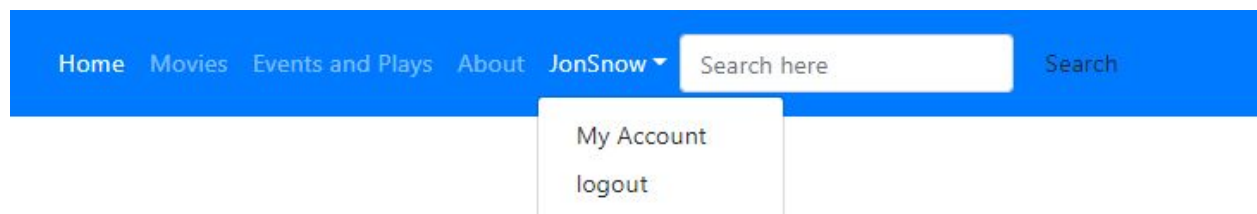
## Logging in as a user

The login form is titled "Log In" and "Login with your Details". It features two input fields: a username field containing "JonSnow" and a password field with masked characters ".....". Below the fields is a blue "Login" button. At the bottom, there is a link "Don't Have an account? Register Here".

## Logged in as JonSnow



Clicking on JonSnow:



Clicking on My Account:

BookMyShow							
Home Movies Events and Plays About JonSnow Search here Search							
Full Name	Phone Number	wallet	User Name	email	password	credit card	debit card
Aegon Targaryen	8281112789	0	JonSnow	theWhiteWolf@GOT.com	ygritte	999999	888888

At the same time we can log in as another user from a new tab and their corresponding information is shown when clicked on My Account.

BookMyShow									
		Home		Movies		Events and Plays		About	
		JonSnow		Search here				Search	
Full Name	Phone Number	wallet	User Name	email	password	credit card	debit card		
Aegon Targaryen	8281112789	0	JonSnow	theWhiteWolf@GOT.com	ysgrute	999999	888888		

It takes them to the home page.