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**Course Code:** 19CSE314 **Course:** Software Engineering **Sem:** VI

**Document Type :** Case study **Date :** 05-01-2022

**BOOKING SEATS IN CINEMA THEATER**

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| --- | --- | --- |
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**Abstract :**

The primary purpose of making the software is to create an automatic system which will provide an easy and an alternate way to book a ticket for a movie. The customer will need to enter the information related to film after which the system will provide options to book the ticket. The staff of the cinema hall won’t have to do anything for the ticket booking as the process will be done by the customer through the software which will reduce the amount of staff required in the booking counter.

**Stakeholders :**

· **Internal Stakeholders :**

i) Software Developers

ii) Customer Support Team

iii) Theater Management

· **External Stakeholders :**

i) Users

**Modules** :

1. **Registration** – New user entry

2. **Login** – Pre-existing users credential validation phase

3. **Data Library** – Database containing Movies, Open theaters, Available seats and Available City options for the movie

4. **Seats Booking** – Selecting seats in a particular theater alongside additional functionalities

5. **Payment** – E-payment succeeding the seat choosing phase

6. **Cancellation and Refund Management** – User’s cancellation phase and Refund status

7. **Ticket Output** – Generation and disclosure of Downloadable soft-copy ticket image

**Tables** :

* Theater (Master table) – basic information, Purpose : To get information about now showing movies and their corresponding theaters.

**Primary Key –** Theater ID

**Foreign Key –** Movie ID

* Movie - Purpose : To get details about movies.

**Primary Key –** Movie ID

**Foreign Key –** Movie ID

* Login (Master table) - Purpose : Access customer details and provide access to authorized users.

**Primary Key –** User ID

**Foreign Key –** Cust ID (To access previous booking history of the customer)

* Customer - Purpose : To store details of all existing user along with booking history

**Primary Key –** Cust ID

**Requirements** :

***Functional***

* The system should be able to list down cities where it’s cinemas are located.
* Upon selecting the city, the system should display the movies released in that particular city to that user.
* Once the user makes his choice of the movie, the system should display the cinemas running that movie and its available shows.
* The user should be able to select the show from a cinema and book their tickets.
* The system should be able to show the user the seating arrangement of the cinema hall.
* The user should be able to select multiple seats according to their choice.
* The user should be able to distinguish between available seats from the booked ones.
* The system should serve the tickets First In First Out manner

***Software***

* **Operating System** : **Windows 7** or above, **Android**
* **Web browser** that supports **HTML5** or above
* **Database** : SQL + Database
* **Platform** : vb.net / Java / PHP

***Hardware***

* PC with stable internet connection
* An android phone with stable internet connection

**Reports** :

1) Booking confirmation (Display status of tickets)

2) Software Updates (From Developers to Project Manager)

3) SRS (Software Requirement Specification)

4) Testing Report (Testing Objectives, Activities, and Requirements)

5) Time tracking Report (Track Overall time spent for each task)

6) Project Health Report (Updating Stakeholders the status of the project)

7) Feedback (From Users, Theater management regarding their feedback on using the software)

**User stories** :

* **Epic :** First Screen Module
  + **User Story 1:**
    - As a user, I should be able to see all the recommended and latest movies.
      * **Tasks :**
        + Implement the home screen using HTML/CSS/JS.
        + Cut SVG Icons.
        + Adding background images.
        + Designing the animation features to be implemented.
        + Create SQL scripts to show all recommended and latest movies.
        + Creating and hooking up a web service API for interfacing between the data layer and the home screen.
  + **User Story 2:**
    - As a new user, I need to have a login/sign up icon on the bottom of the Home Screen.
      * **Tasks :**
        + Create a button to redirect to the Login/Signup Page.
        + Designing the animation features to be implemented.
        + Implement the home screen using HTML/CSS/JS.
        + Adding SVG Icons and background Images
        + Create loading page to display while loading login/signup page
  + **User Story 3:**
    - I want to have an “Explore” button to see the complete list of movies without login in.
      * **Tasks :**
        + Create a button after all recommended movies list to show all movies running now.
        + Designing the animation features to be implemented.
        + Implement adding all movies dynamically in the home screen using HTML/CSS/JS.
        + Adding SVG Icons and background images.
        + Create SQL scripts to show all playing now movies in the selected city.
        + Creating and hooking up a web service API for interfacing between the data layer and the home screen.
  + **User Story 4:**
    - I should be prompted to login/signup when I select the “Explore” button.
      * **Tasks :**
        + Create a prompt request to ask the user to login/signup and contai the button redirecting to the login/signup page.
        + Adding more animation features
        + Adding SVG Icons.
        + Create loading page to display while loading login/signup page
  + **User Story 5:**
    - I should be able to skip login/signup and see all the movie listings.
      * **Tasks :**
        + Create a skip button on the prompt message to skip the login/signup module.
        + Designing the animation features to be implemented.
* **Epic :** Signup Module
  + **User Story 1:**
* As a new user, I should be asked to enter my Email Id or Mobile number for creating a new account.
  + - * **Tasks :**
        + Creating a login table for storing the user data, Phone number or email id.
        + Users can enter mail id or phone number as of their interests in the textbox provided.
        + Checking if the account exists or not from the existing data from the database.
        + Pop a message “Account already exists” or add data to the login table otherwise.
        + If an Account exists, redirect the page to login or else request to enter a different mail id or mobile number.
  + **User Story 2:**
    - User should be able to login through other social profiles
      * **Tasks :**
        + Creating an onclick option for sign with facebook, login with google and signup/login.
        + Users get to choose the account(Social media accounts).
        + Page redirects to corresponding social media accept the details and terms and conditions.
        + Integrate Google API with the software for alternate login options.
        + Integrate Facebook API with the software for yet another login option.
  + **User Story 3:**
    - User must be able to enter a password for my account
      * **Tasks :**
        + After entering mail id, an input type password for creating a new password should be given.
        + Accept password with certain constraints and captcha
        + Able to choose the username.
        + Now username and password should be stored in a secured database.
        + These credentials should be accepted in the login module.
  + **User Story 4:**
    - User must be able to enter his personal information in a form
      * **Tasks :**
        + Asking the user for entering his personal information.
        + By taking the personal details I can advertise my movie ticket booking in their social media and track their activity.
        + Skip option to redirect the page to home screen and popping it to the next step for two factor authentication.
        + The personal information must be accessible to that particular user only.
  + **User Story 5:**
    - As a new user, I should be given the option to enable/disable Two factor authentication for my account
      * **Tasks :**
        + Two factor authentication allows verification from both email id and mobile number.
        + If two factor authentication is enabled, when logging from other devices other than username and password it should request for OTP/verification code to accept the new device.
        + If two factor authentication is disabled, then only username and password are required.
  + **User Story 6:**
    - After the registration phase, I need to be able to verify my account
      * **Tasks :**
        + To accept the account, verification code will be generated to his mail.
        + And options to cancel and resend code, and To enter the verification code within the time limit.
        + Check the code with the database generated and create the account accordingly.
        + Users need to enter their username and password to go into his account.

* **Epic :** Login Module
  + **User Story 1:**
    - As an existing user, I must to enter my username and password
      * **Tasks :**
        + Add Username and Password as an input using HTML/JS.
        + Check the Database whether the password given is matching with related Username.
        + Print error message if password is incorrect.
        + If a user wants to login using mobile, OTP generation is used and verified.
        + Create a Login button using HTML/CSS.
        + Successful login should direct to the Homepage.
  + **User Story 2:**
    - I should also be able to check the option where my login credentials are saved for next time.
      * **Tasks :**
        + Prompt for your user name and password.
        + For Checkbox, use HTML.
        + Allow users to select the Remember my password check box.
        + Credentials are saved in the most general form possible.
        + Create Database for storing credentials.
  + **User Story 3:**
    - I should be given an option to Recover password if forgotten or lost
      * **Tasks :**
        + Create Forgot Password button.
        + Verify the user using the provided mail and mobile number.
        + Verification is invalid, Then there is no chance to recover at that moment.
        + Verification is Valid, then the user needs to enter input data fields.
        + Input New Password and Re-enter New Password.
        + For New Passwords there should be data field specifications.
        + New Password cannot be the same as the previously used password.
        + New Password and Re-enter New Password entry should be masked while the user types it.
  + **User Story 4:**
    - I should be able to view the typed password using a toggle button
      * **Tasks :**
        + Cut SVG Icon for Eye icon
        + Provides users to securely input passwords.
        + It shows \* or some character instead of actual characters.
        + If typed Wrong password and wants to check, Toggle eye icon.
        + Eye icons should be placed and styled using CSS.
        + Add JavaScript to Toggle Hide/Show Password.
  + **User Story 5:**
    - On the background, the branding of the company should be visible
      * **Tasks :**
        + Use Background attribute by using HTML tag.
        + Store the image or image path.
        + If the image is on the internet we can use the URL.
        + For Background image Styling CSS is used.
  + **User Story 6:**
    - I should be able to Sign up if I don't have an account.
      * **Tasks :**
        + If User Don’t have an account, they can sign up.
        + On Clicking Sign up, User will be redirected to the sign up page.
        + Use HTML for linking and redirecting pages.
* **Epic :** Location Listing
  + **User Story 1:**
    - As a new user, I should be prompted to select my location from a given list (or) enables GPS automatically to locate
      * **Tasks :**
        + Provide a drop down menu on available locations.
        + Create a GPS symbol that enables user to choose location using GPS
        + Turn on location services in the device and update the location field in the database
        + Acknowledge on unavailable locations if any
        + Provide Google map integration
        + Allow user to drag and choose any location in the map
  + **User Story 2:**
    - I should also be able to continue without providing the region upon which random Top rated theater
      * **Tasks :** 
        + Create listing screen to display theaters
        + Get the list of theaters from the database
        + Sort the theaters in descending order of rating
        + Display the top 20 among the list
        + Display location of each theater (city, state)
  + **User Story 3:**
    - First time input of a location should be set as default preference for subsequent searches
      * **Tasks :** 
        + Update the given location as default preference.
        + Continue without updating if default preference already exists.
  + **User Story 4:**
    - I should be acknowledged upon receiving my location preference
      * **Tasks :** 
        + Update location in the database
        + Display location on the home screen
        + Location change pop-up message
  + **User Story 5:**
    - Once the location is given, all the movies in descending order of rating, screening in that city should be displayed
      * **Tasks :** 
        + Extract movie details from the movie database
        + Sort the movie list in descending order of rating
        + Filter theaters located in that particular city
        + Collect movie posters to display
* **Epic :** Movie Listing
  + **User Story 1:**
    - Movie Display - As a user, I would like my Movies to be displayed in descending order of rating for the selected location
      * **Tasks :**
        + Collect all the necessary movie posters for the top rated movies.
        + Create a table of movies greater than a threshold rate to display.
        + Create a collection of images.
        + Adding an Image control.
        + Establish carousel controls and navigation properties using HTML/CSS.
        + Enable auto rotation.
  + **User Story 2:**
    - Filter option - As a user, There must be a filter option to classify the movies based on some parameters.
      * **Tasks :**
        + Find or Create an SVG for the filter icon.
        + Design an UI for a full screen filtering.
        + Implement display functionalities using HTML/CSS.
        + Page redirection to full screen filter.
        + Enable MySQL scripts to display based on the given filter inputs.
  + **User Story 3:**
    - PG rating - As a user, I expect the PG rating of a movie to be displayed alongside the poster.
      * **Tasks :**
        + Include a PG rating icon parallel to the Name of a movie.
        + MySQL script to fetch ratings of a particular movie from a database.
        + Embed the rating parallelly into the text displaying the name of the movie using HTML,CSS,JS.
  + **User Story 4:**
    - Recommendation - There must be personalized recommendation based on previous search patterns.
      * **Tasks :**
        + Defining selection of movie databases and displaying new releases in a cluster.
        + Recommendation to be integrated with the search table and display based on specific parameters (Genres, Language etc.)
        + Explore button link to be created to direct to full screen list of recommended movies
  + **User Story 5:**
    - Search - I should be able to search for a specific movie using a search tool.
      * **Tasks :**
        + Cut an SVG and place accordingly using HTML,CSS,JS
        + Onclick functionality and design of the icon
        + Loading transition design using CSS
        + Impose Dynamic filter function that enables to display as you type
  + **User Story 6:**
    - Location preference - The location preference should be displayed and should also be changeable.
      * **Tasks :**
        + Fetch the location preference from database
        + Display location details on the top panel
        + Embed change location button
        + Embed Live location input as an option
* **Epic :** Theater Listing
  + **User Story 1:**
    - I would like to be shown the theaters in increasing order of distance from the selected location
      * **Tasks :**
        + Extract details of all the theaters from the database
        + Sort the theaters in ascending of distance from the location provided
        + Display the show timings below the theater name
  + **User Story 2:**
    - As a user I would like to know the rating and information of the selected theater
      * **Tasks :**
        + Provide hyperlinks to the google review page of theater alongside the name
        + Display the rating of all the theaters to the right of names in the display board
        + Sort the list starting from the most visited/preferred in that location
        + Provide an “i” button to get a quick pop-up on the short info of the theater
  + **User Story 3:**
    - As a user I would like to know the show timings of the movies in the selected theater
      * **Tasks :**
        + Box grid display of show timings under a particular theater
        + Available boxes are to be highlighted green
        + Display percentage of availability on hovering the timing
  + **User Story 4:**
    - I should be able to see the timings and availability of seats in the near future dates
      * **Tasks :**
        + Include a calendrical panel on top to select a particular date
        + Important dates with the deals are to be highlighted
  + **User Story 5:**
    - I should be able to search for a particular theater from the list
      * **Tasks :**
        + Create a SVG for the search icon
        + Expand text box upon the selection of search option
        + Filter the search engine based on the text that user enters
* **Epic :** Seat Booking
  + **User Story 1:**
    - As a user, I should be expected to select the number of seats to be booked
      * **Tasks :**
        + Create an input box to select the number of seats.
        + Separate input boxes for the number of seats for adults and children.
        + If the number of seats selected are more than the seats available, it shows the user, the number of seats are unavailable.
        + After selecting the number of seats, it redirects to the theater layout page to select the preferred seat selection page.
  + **User Story 2:**
    - Upon entering the number of seats, I expect the page to show whether the selected number of seats are adjacently available
      * **Tasks :**
        + Display the cluster of seat icons adjacently if available
        + Seats are to be divided and labeled according to their prices & rows (eg: Normal, Executive, VIP)
        + Price of seats are to be represented at the top of each kind of seating available in the theater
        + Selected row or group must be displayed in a different color from the rest available ones
        + Sold out / Pre-Booked seats are to be displayed in an engaged color and shouldn’t be made available to choose
  + **User Story 3:**
    - As a user, I expect the selected seats to be available upto a particular time period until payment confirmation
      * **Tasks :**
        + Clock counter should be enabled to keep track of time for a threshold period
        + Upon completion of the counter in the payment page, session expired notification is to be displayed
        + Counter timer should be made visible to the user
        + User should be redirected to the Home page after session expiry

* + **User Story 4:**
    - Upon the timer expiring and the payment being undone, the session expires and the seats should be available for future searches
      * **Tasks :**
        + Seats are to be made available on the event of unsuccessful payment and also if the timer gets expired
        + Change the color of the seats to the regular available color
  + **User Story 5:**
    - As a user , I expect a layout of the theater I choose, in order for me to select my preferred seats
      * **Tasks :**
        + Design a theater layout including screen,seats entry and exit,signs
        + Seat availability are to be differentiated
        + Upon selection of seat, an animated screenplay on the POV of that seat should be displayed
* **Epic :** Payment Gateway
  + **User Story 1:**
    - Upon selecting the seats, I expect a summary amount to be displayed before proceeding to okay.
      * **Tasks :**
        + According to the seat selected, price should be added.
        + Embed checkout button at the bottom alongside the fare
        + Display the subtotal fare below the seat selection window
        + Redirect to the next page on clicking checkout button
  + **User Story 2:**
    - As a user, I should be asked about my payment options
      * **Tasks :**
        + Various Payment options will be displayed.
        + Users can pay through UPI transactions like Google Pay, Phone Pay etc.
        + Users have the option to pay through QR-Code.
        + According to the amount Code should be generated.
        + Users can use Net Banking, Debit Card, Credit Card etc.
  + **User Story 3:**
    - Upon selecting the payment option , I should be redirected to the particular payment gateway.
      * **Tasks :**
        + The Pay Now button can be created using HTML/CSS.
        + Users should be redirected to the payment gateway after clicking the Pay Now button.
        + Payment Process.
        + Validation of Bank Account of the user.
        + User gets OTP generation and Validation happens.
        + Users can also use Passwords for cards and from bank validation takes place.
  + **User Story 4:**
    - As a user, I expect to be allowed to enter coupon codes for discounts on the fare.
      * **Tasks :**
        + Create input textbox to enter coupon code
        + Search through valid coupon codes available for a user
        + Acknowledgement on the successful coupon applied
  + **User Story 5:**
    - I expect to be sent acknowledgement on the status of the payment made.
      * **Tasks :**
        + Redirect to chosen payment gateway
        + Upon successful payment, generate local invoice
        + Redirect the user to a printable ticket page
        + Send digital copy of the ticket to registered mobile number/ Email
        + Add payment details to the transaction history into the user profile
  + **User Story 6:**
    - Upon failing the transaction, I expect to be redirected to the home screen.
      * **Tasks :**
        + Redirect user to homepage
        + Display corresponding error message
        + Provide option to either Retry payment or Continue browsing

**USER - STORIES [InVision template]**

Link - [Group-9-User\_Stories](https://shridhar698605.invisionapp.com/freehand/User-Stories-Group9-m2oI58phM?dsid_h=e5c42685b2e51a8d189d2d85f7cbdb04f7e6e435beddcba797518da3c50ea3c8&uid_h=247dd5663c6074b77cb99933e8aa6996300773694eb1994387b52b24d21dd7a8)













