

Requirements and Design Document

a. Project Overview

Charlotte Book My Event is a web application for users to reserve tickets for various events that are being conducted all over the city of Charlotte. A new user has to sign up to the web application in order to view the various events that are conducted and also reserve tickets for the ones they are interested to attend. Our target market is mainly for students- for viewing educational events as well as recreational ones; tourists- who would like to get a glance at all the events and attend the ones during their stay in the city; and the people who are interested in Sports and Music- by providing an easy medium to reserve tickets for their favourite Game show or Live Concerts.

This Java web-application follows the MVC pattern in the following specifications:

1. Model - Java beans to implement the business layer of the application. In this project, we have the User, Event and UserEvent classes as Java Beans.
2. View – JSP pages to represent the view to the browser. In this project, we have a number of JSP pages representing each functionality of the User and Admin.
3. Controller- Servlet pages that control the flow of the application. We have UserLoginServlet – to login a returning user and admin and sign up a new user and send an email to the new user, and EventServlet – that handles all the functionality of the User and Admin.

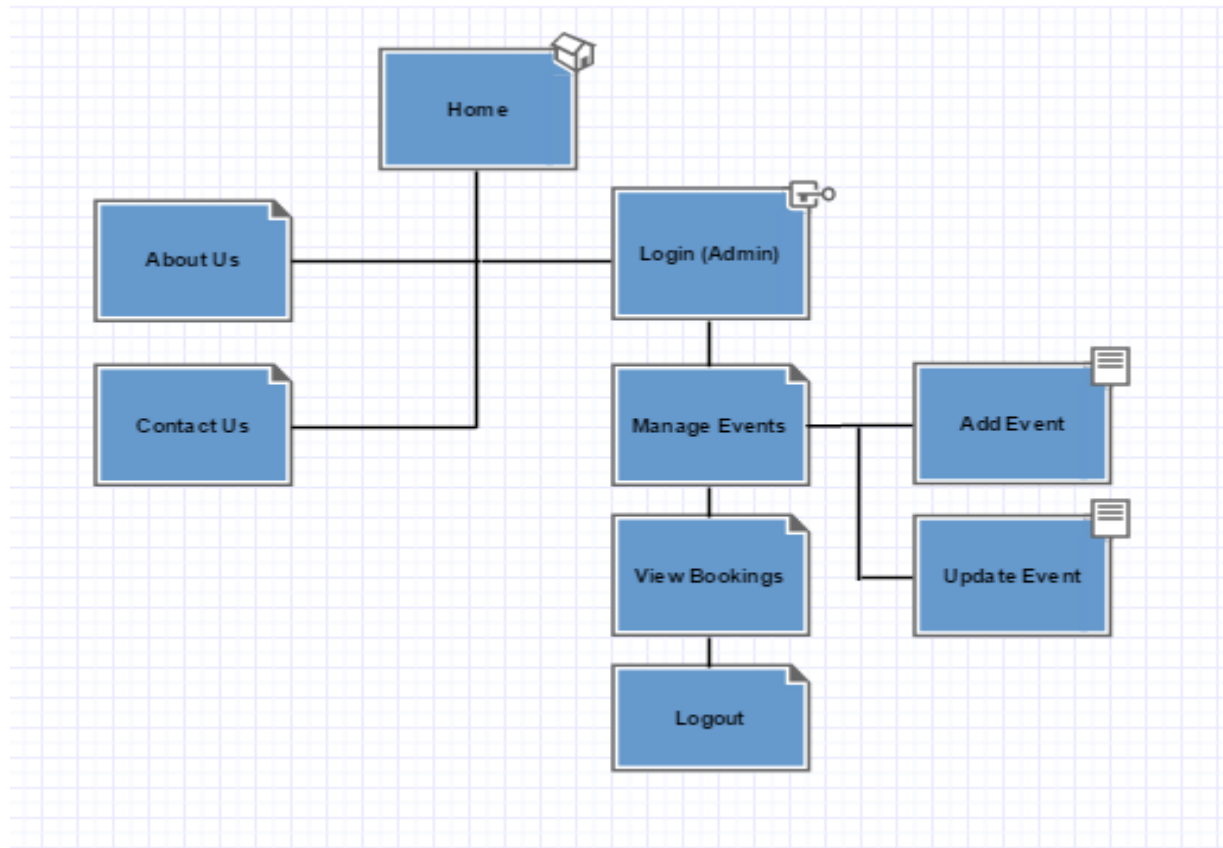
Starting with the home page, we have links to view the events, about us and contact us pages. We can also login from the home page if we are a returning user or admin.

While viewing the events, we cannot book the tickets until the user has logged in. This means that a new user will be redirected to the sign up page and the returning user will be redirected to the login page. Once the signup/login is completed, a user can view the events and their details and proceed to reserve the tickets. It must be noted that a user can reserve only up to 5 tickets. However, a user can reserve for an event multiple times until the ticket count for that user reaches the limit of 5. A user cannot reserve tickets for an event when the maximum number of tickets for that event have been reserved. On successful reservation, an email is sent to the user along with the total price of the ticket to be paid at the counter while collecting the tickets. Appropriate messages will be displayed to the user when the tickets cannot be reserved.

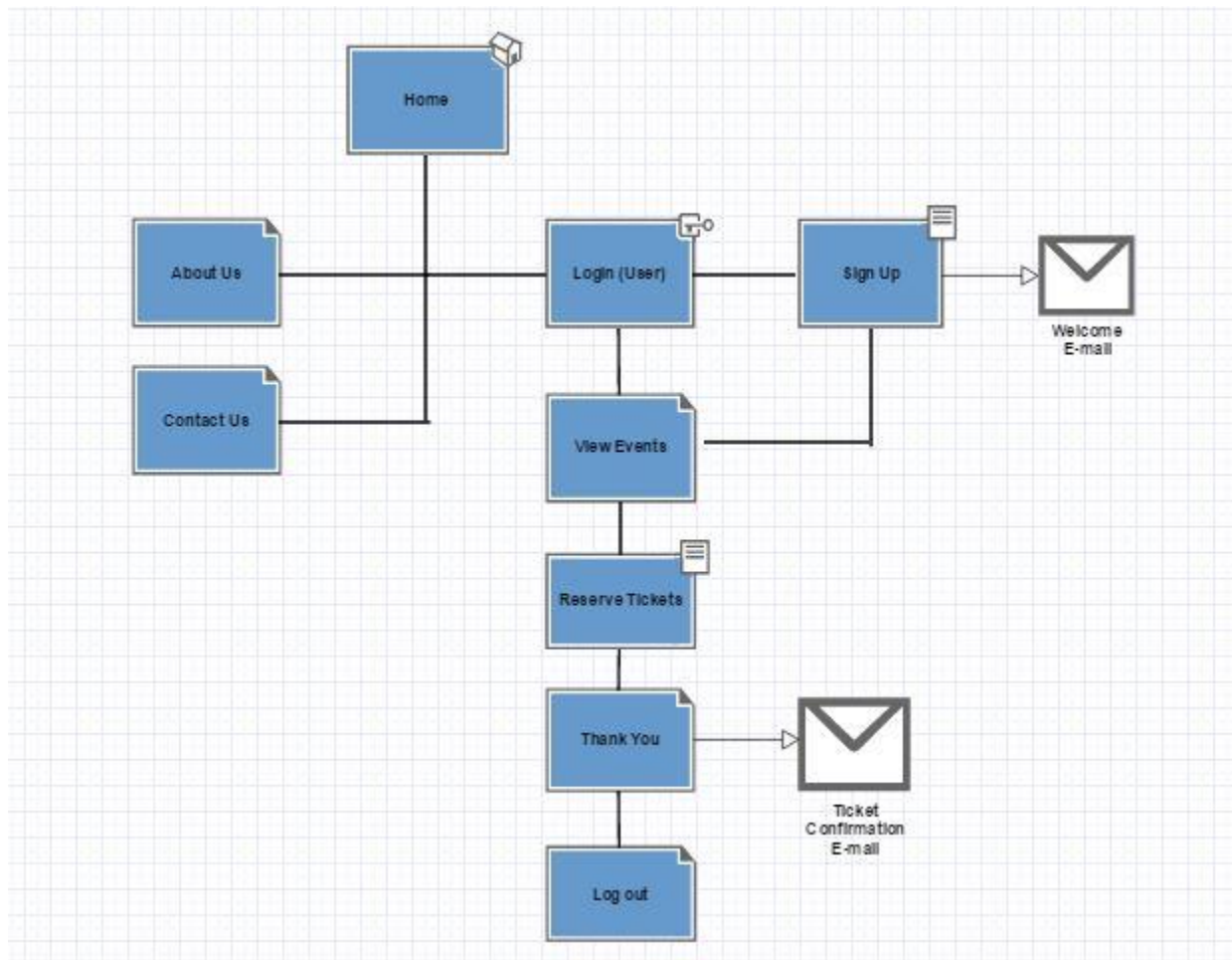
The Admin has the functions of adding, updating or deleting events. The admin can also view all the bookings that have been done. The Admin can change the ticket price and maximum number of tickets available for the event.

b. Site Map

The Figure below represents the site map for the Admin Interface.



The Figure below represents the Site map for the User Interface.



c. Page Design

1. Home Page

This is the welcome page of the web application. The main purpose is to have navigation to other pages of the application. The navigation links are included in the header JSP file. The navigation links varies for the Customer and Admin. There is also a footer JSP file included for all the pages that contains the copyrights content.

2. About us

A general description about the Web- Application. Both the Admin and the Customer can view it.

3. Contact us

A description about the various means to contact the company. Both the Admin and the Customer can view it.

4. Login

This is the login page for the Returning Customer and Admin. The sign in happens based on the 'Type' of user that is in the Database. The users have to enter the email ID and password to log

in. The email ID entered should be in the correct pattern. The password must be the one linked to the email address. On clicking the Log-In button, the Customer will be redirected to the View Events Page, where the list of events will be displayed. In case of the Admin, the Admin will be redirected to the Manage Events page. On Logging in, the header navigation links changes for the Admin and Customer. Failure in logging in will display message to the user.

5. Sign up

This is the sign up page for a new Customer. The customer has to enter the Name, email ID, password and confirm password fields. The email ID should be in the correct pattern of an email. The passwords must meet the minimum criteria. The confirm Password must match the Password field. On clicking the Get Started button, the data will be stored in the database, an email will be sent to the customer and the customer will be redirected to the login page.

6. Manage Events

This page is for the Admin. It has two buttons to Update events and View Bookings. Update events will redirect to a page where Admin can add, update and delete an event. Admin can enter a date that is in future only. Dates in the past cannot be entered. View Bookings button will be redirected to the View Bookings Page.

7. Update Events

List of events are displayed to the Admin and he can click on Update Event to update a particular event or click on the Delete Event to delete the particular event. Delete activity will directly remove the event from the Database and update the events list in this page. The event deleted will also be removed from the View Events and My Events page of the User and also a mail will be sent to the User to notify him about the event cancellation. Update event will be redirected to a form where the details for the event can be updated. Clicking the update event button will update the Database and also the list in the Update Events page. Admin can also Add an event by clicking Add Events Button.

8. Add Event

This is the form for creating a new event. Admin enters the details of the event i.e., event name, description, date, ticket price and maximum number of tickets and clicks on Add event button. Admin can only enter a date that is in future. Dates in the past cannot be entered This details will be saved to the Database and the list of events will be updated in the Update Events page.

9. View Bookings

This page is to display to the Admin the events and the details that are booked by different users.

10. View Events

This page is to display the events to the Customer. The events and their details will be loaded from the database. A user can click on the Book Tickets button to book a ticket. This will be redirected to the Reserve Tickets page. If the total tickets that are sold for an event is equal to the

maximum ticket count for that event, then the customer cannot reserve tickets for the event. In that case, the customer will be redirected to Thankyou page where a message will be displayed that tickets cannot be reserved.

11. Reserve tickets

This page will give details of the event and ask for the number of tickets to be reserved. Here two validations are done. First, the customer can book only a maximum of 5 tickets. So only numbers from 1-5 can be entered in the text field. Second, a customer can book for the same event until his ticket count reaches 5. On clicking Reserve Tickets button, an email will be sent to the customer about tickets confirmation, the details of the user and event booked will be stored in the Database, and page is redirected to Thankyou page.

12. My Events

This page gets the details from the database and displays the events for which the customer has reserved tickets.

13. Thank you

This page displays appropriate message to the Customer on success or failure of ticket reservation.

14. Logout

This button in the header is used to log out from the web application and go to the Home page.

d. ER Diagram

