

PUSL2024 - SOFTWARE ENGINEERING 02

(2nd Year, 1st Semester)

Movie ticket Booking System



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Introduction to the Scenario

When we take an online cinema booking system, we can develop one by entering customer information. In this case, we will study how to handle customer information from different perspectives. The first thing to think about is who is directly or indirectly related to the customer in this system. Before implementing an online cinema booking system, we must analyse the institutions related to this situation related to this situation. Then we can take the institution such as customer login, admin, movie, booking, payment at this time. When we take entities separately, we can take customer id, customer name, customer code.

When a customer buys a booking, the system must maintain the movie name, movie id, and most importantly the booking id, booking desc. If the customer buys a ticket, the customer must register in the system and enter their information into the system. The relevant information should be stored. Another important thing is that the customer should keep his or her username and password separately. By entering all these details into the system, we can share the details of a customer. For example, if the control officer needs the customer's booking details or if for some reason the relevant personal information of the customer is needed. The system can provide the information at any time if the customer needs to be contacted.

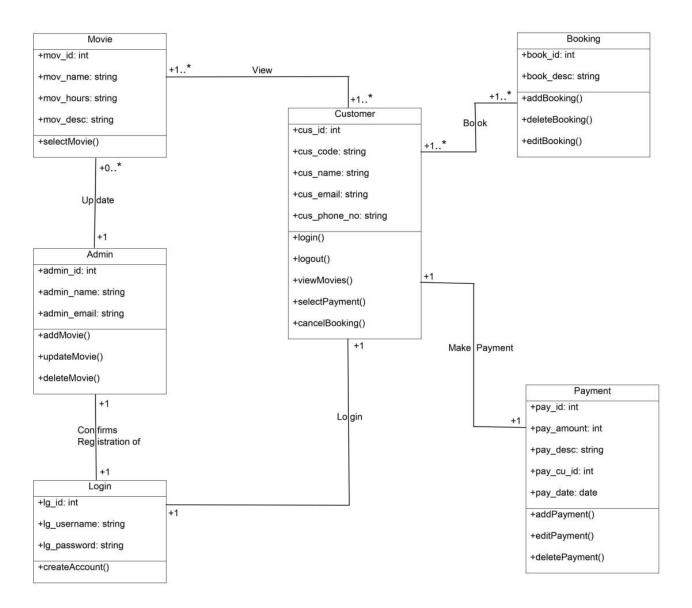
Processes of the ABC cinema

ABC is a leading cinema in the business of film industry. This cinema goal is to make online movie booking reservations. Anyone with a web connection can access the ticket reservation system, which is an Internet-based program, from anywhere in the world. This program will hold the booking. The website offers comprehensive facts about movies that are currently playing on all screens, including showtimes and seat availability. Reservations for booking are made with a credit card and are cancellable if necessary. One of the finest options for people who can't afford the time to reserve their tickets while waiting in long lines is our online system. Online booking purchasing is available day or night. Our reservation system now offers the ability to cancel already reserved booking. Customers can view any movie show's material whenever they want and can purchase any movie ticket as necessary. The subtotal and total are calculated automatically by the application. The order details, including the visitor's name, address, and billing instructions, are securely kept in the database at the time the visitor decides to book the ticket. You need to register a new user whenever you have first visited or site then for future it will be stored in our database.

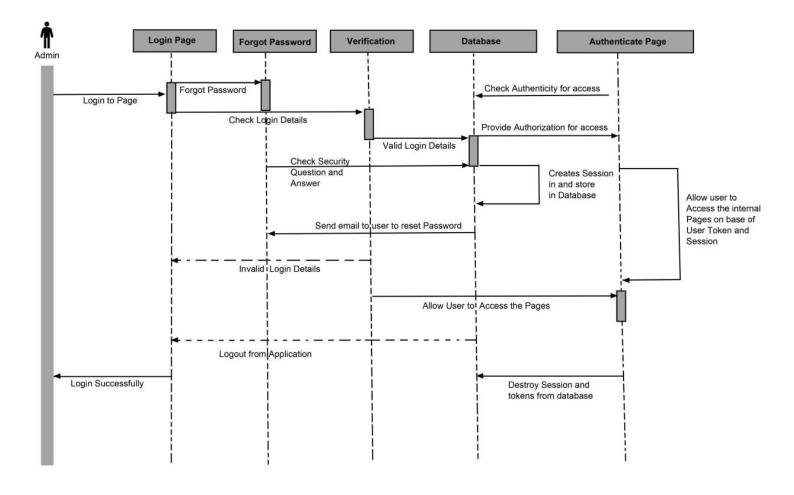
Use case diagram



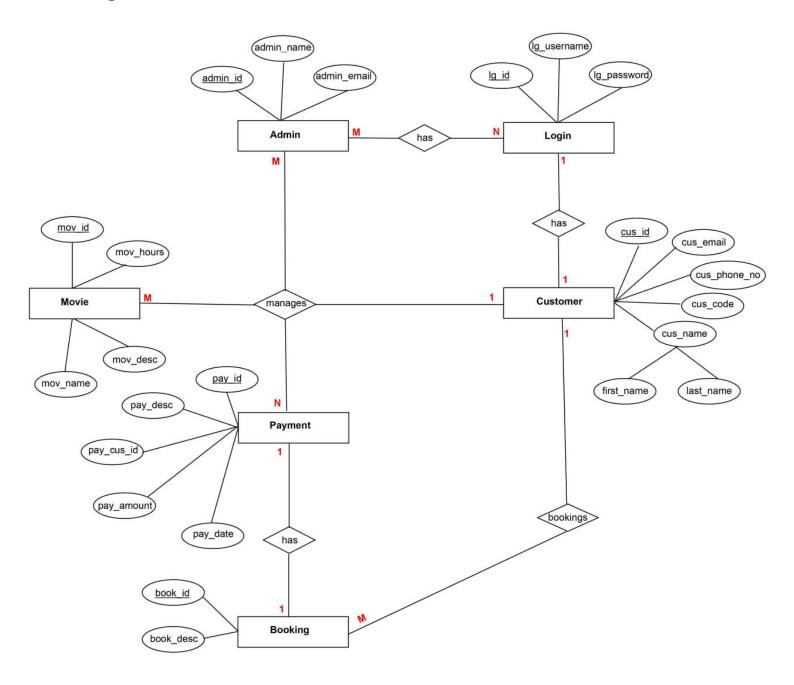
Class diagram



Sequence diagram

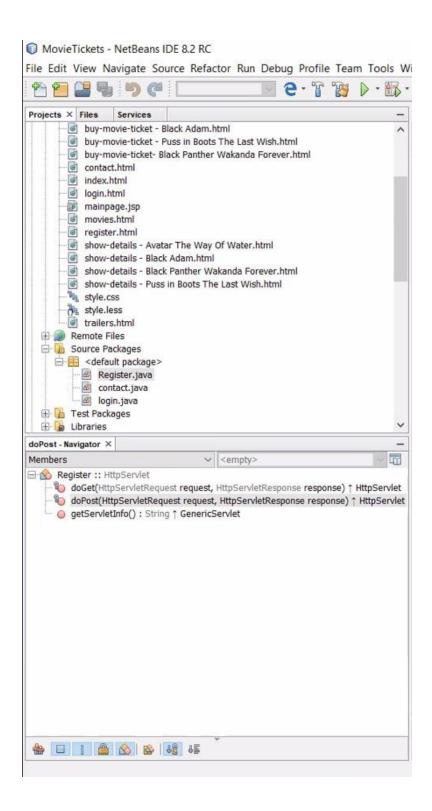


ER diagram

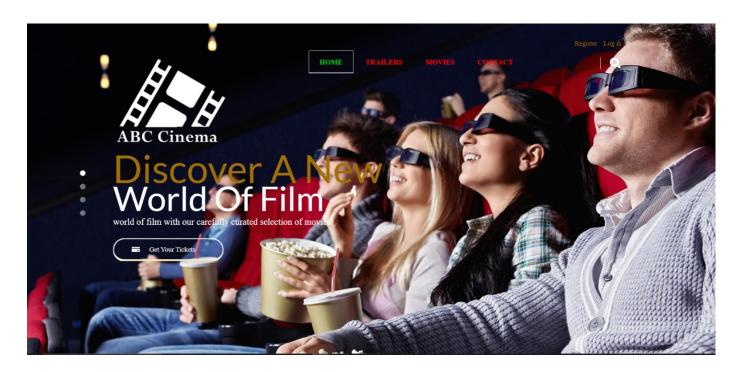


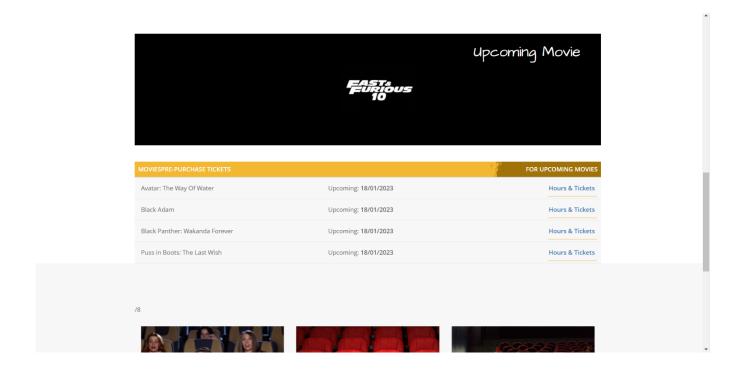
Screenshots of the Developed Website

MVC Architecture

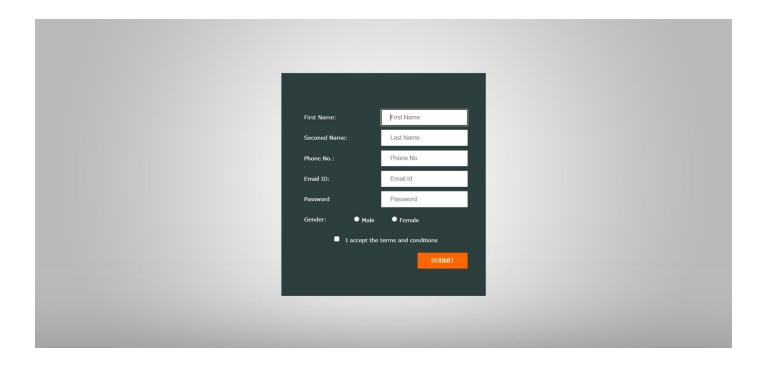


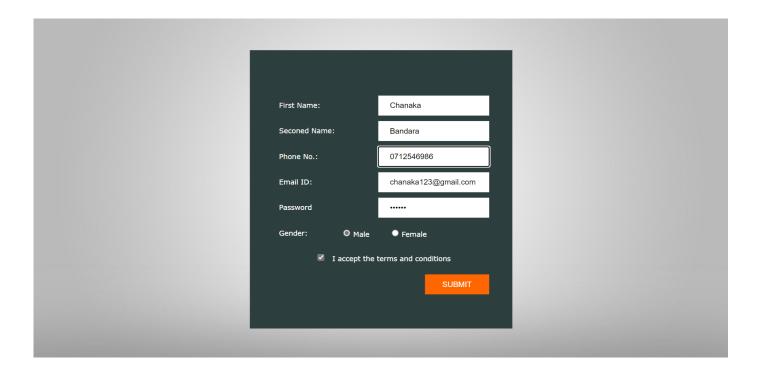
Home page



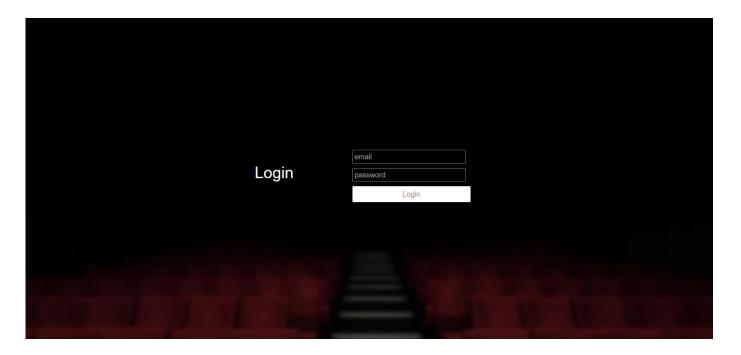


Registration Page

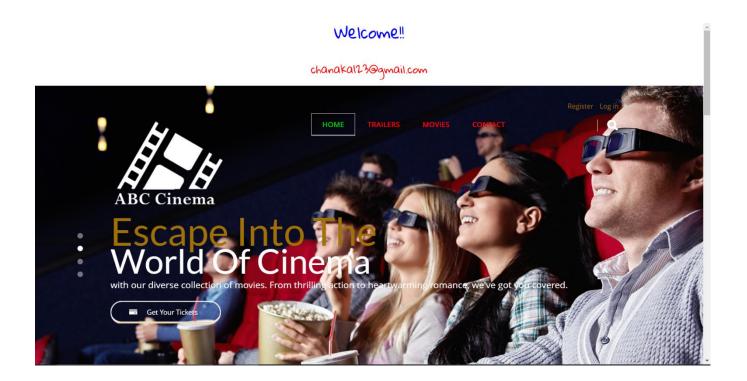




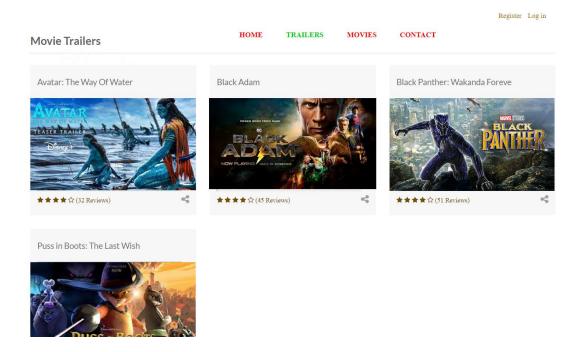
Login Page



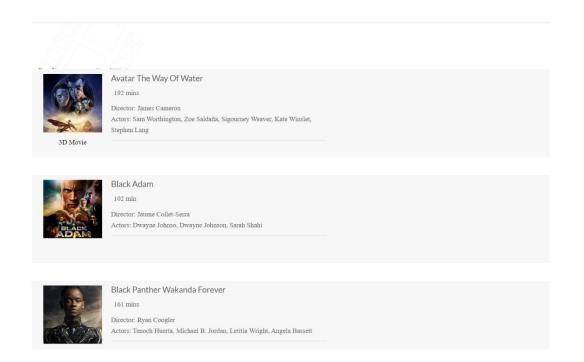
After login



Trailers Page



Movie Page



After click movie

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Avatar: The Way Of Water

HOME TRAILERS

MOVIES

CONTACT



Avatar : The Way Of Water

Duration: 192 mins

Country: USA

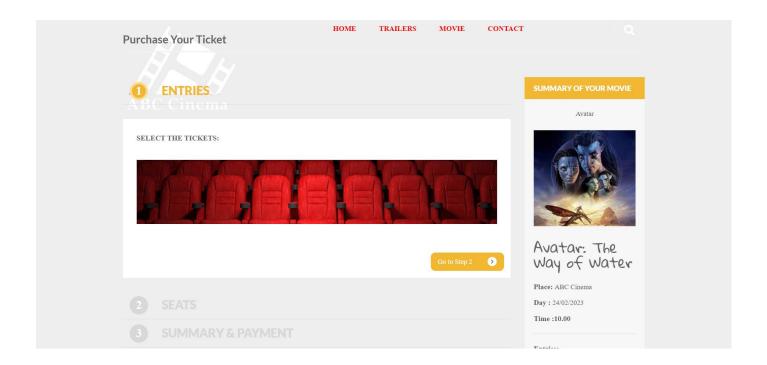
Actors: Sam Worthington,
Zoe Saldaña, Sigourney
Weaver, Kate Winslet, Stephen
Lang

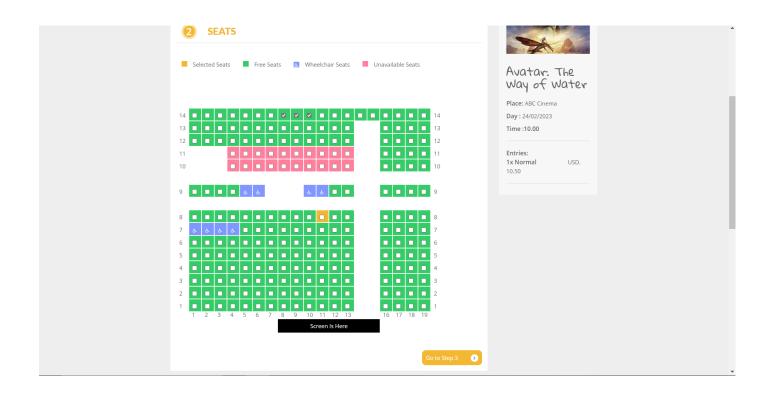
Movie Details

Avatar: The Way of Water is a 2022 American epic science fiction film directed and produced by James Cameron, who co-edited the film and co-wrote the screenplay with Rick Jaffa and Amanda Silver from a story the trio wrote with Josh Friedman and Shane Salerno. It is distributed by 20th Century Studios, it is the sequel to Avatar (2009) and the second installment in the Avatar film series. Cast members Sam Worthington, Zoe Saldaña, Stephen Lang, Joel David Moore, CCH Pounder, Giovanni Ribisi, Dileep Rao, and Matt Gerald reprise their roles from the original film, with Sigourney Weaver returning in an additional role. New cast members include Kate Winslet, Cliff Curtis, Edic Falco, and Jemaine Clement. In the film, Na'vi Jake Sully (Worthington) and his family, under renewed human threat, seek refuge with the Metkayina clan of Pandora.

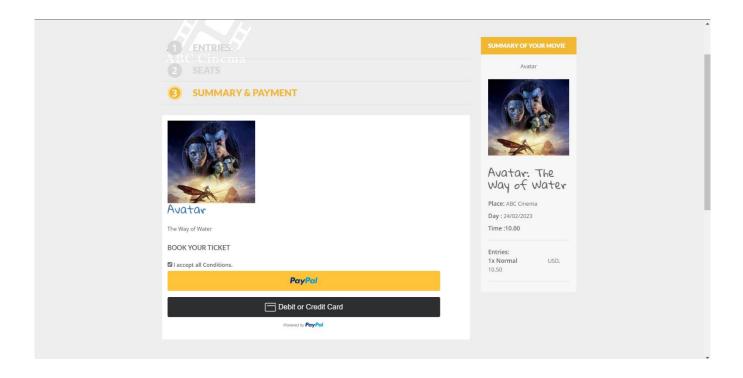
Cameron stated in 2006 that he would like to make sequels to Avatar if it was successful, and he announced the first two sequels in 2010, following the widespread success of the first film, with the first sequel aiming for a 2014 release. However, the addition of two more sequels, for a total of five Avatar films, and the necessity to develop new technology in order to film performance capture scenes underwater, a feat never accomplished before, led to significant delays to allow the crew more time to work on the writing, preproduction, and visual effects The filming process, which occurred simultaneously with a currently untitled third film, began in Manhattan Beach, California, on August 15, 2017. The filming location moved to Wellington, New Zealand, on September 25, 2017, and concluded in late September 2020 after three years of shooting. With an estimated budget of \$350–460 million, it is one of the most expensive films ever made. Following repeated delays in the expected release schedule, Avatar: The Way of Water premiered in London on December 6, 2022, and was theatrically released in the United States on December 16, 2022. The film received generally positive reviews from critics, who praised the film for its visual effects and technical achievements but criticized the plot and lengthy runtime. The film has grossed over \$1.517 billion worldwide. It became the 10th-highest grossing film of all time, the sixth-fastest film to cross the \$1.5 billion mark at 12 days, and the fourth-fastest film to cross the \$1.5 billion mark at 20 days. It is also the fourth film to cross the \$1.5 billion mark since the start of the COVID-19 pandemic, along with being the second film to pass the \$1.5 billion mark since the start of the COVID-19 pandemic. It is also the highest-grossing film of 2022. Organizations such as the National Board of Review and

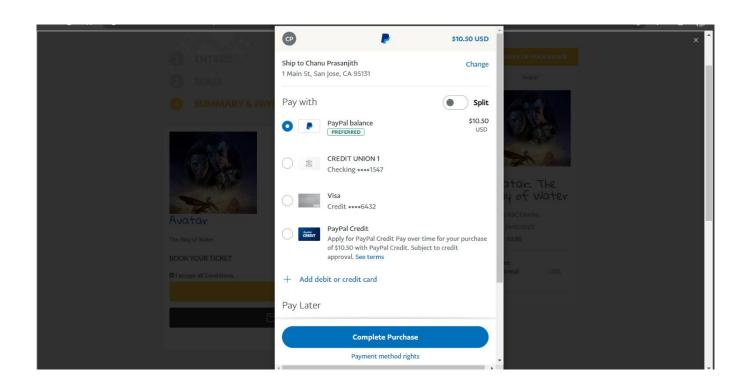
Ticket Booking Page

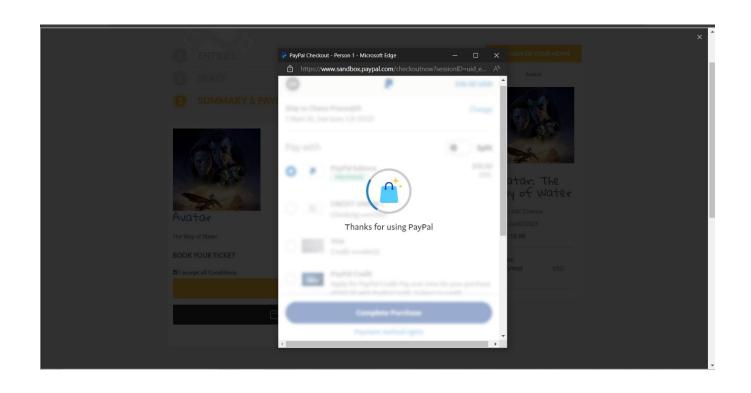


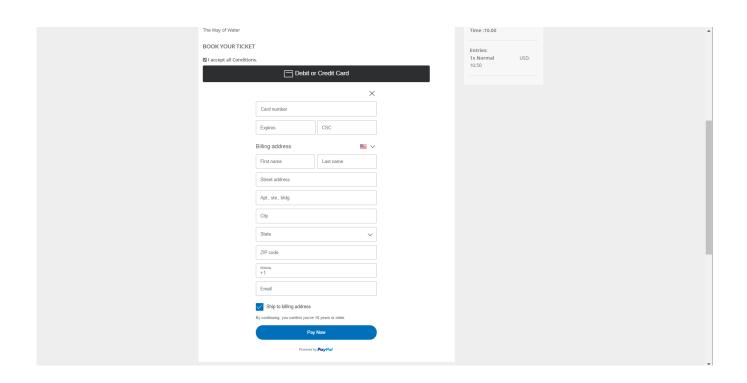


Pay Pal Payment Gateway

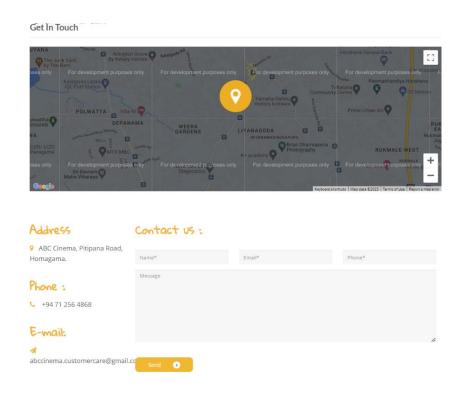


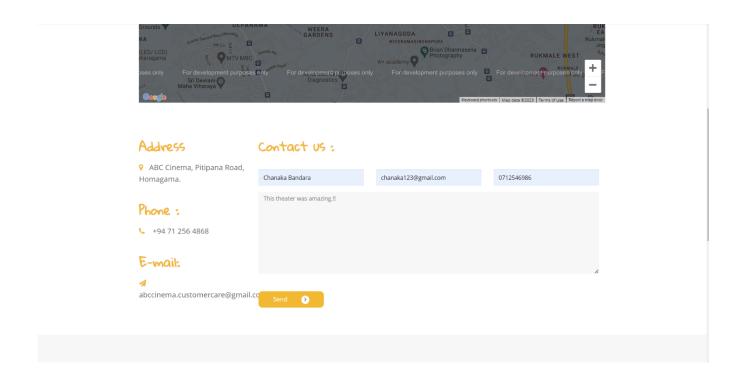






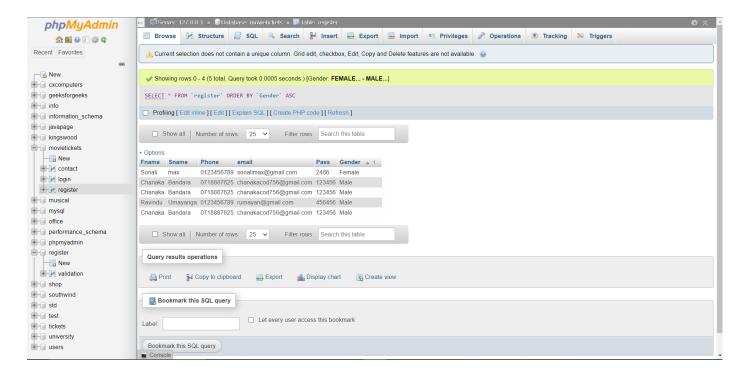
Contact Us Page





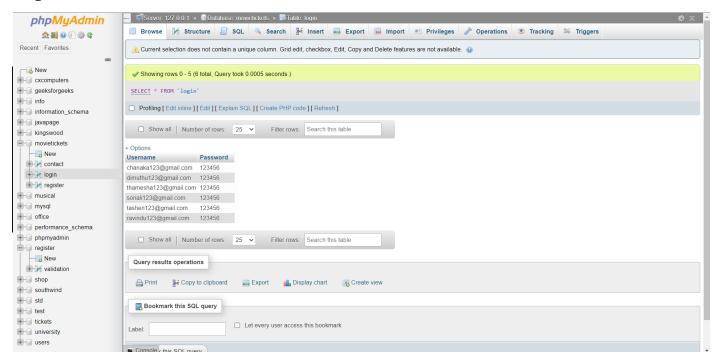
Database - SQL Quarries

Registration table

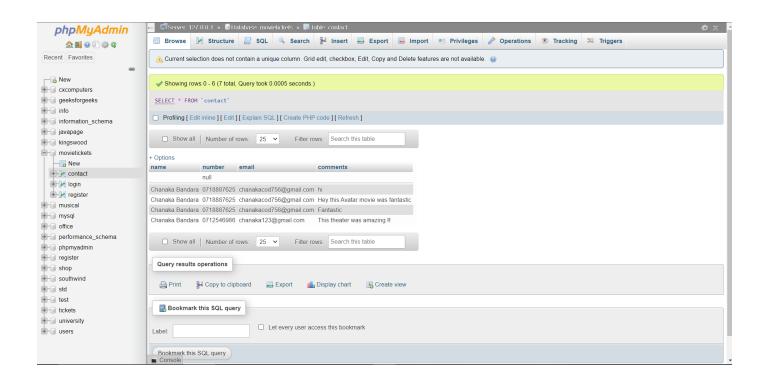


Data inserted successfully

Login Table



Contact Details (Customer Feedback)



```
THANK YOU FOR YOUR FEEDBACK!!
```

Servlets

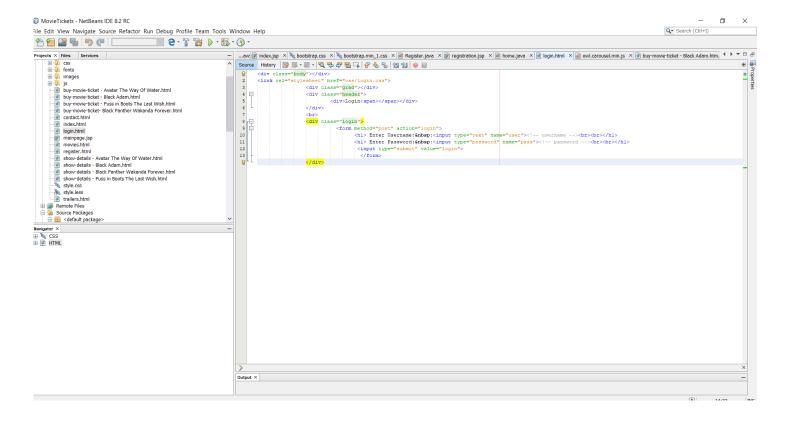
A Java programming language class known as a servlet is used to increase the functionality of servers that host applications that are accessed via the request-response programming model.

Login, Registration and contact details pages have their own servlets.

```
Source History | 🚱 👨 + 🗐 + 💆 😓 😓 📮 📫 | 🔗 😓 | 💇 💇 | ● 🔲 | 👑 🚅
      import java.sql.*;//
     import javax.lang.model.element.Name;
     import javax.persistence.Id;
11
12
     @WebServlet(urlPatterns = {"/Register"})
13
     public class Register extends HttpServlet {
14
15
         protected void doGet(HttpServletRequest request, HttpServletResponse response)
17 🗖
                 throws ServletException, IOException {
18
19
         @Override
         protected void doPost(HttpServletRequest request, HttpServletResponse response)
                 throws ServletException, IOException {
22
           String Fname = request.getParameter("firstName");
23
           String Sname = request.getParameter("secondName");
           String Phone = request.getParameter("phoneNo");
24
           String email = request.getParameter("email");
25
26
            String Gender = request.getParameter("Gender");
            String Pass = request.getParameter("password");
28
            PrintWriter out = response.getWriter();
8<u>a</u>
            Connection con = null; //creating connection class instance
            Statement st = null;
31
            try
33
             Class.forName("com.mysql.jdbc.Driver");
34
             con = (Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/movietickets","root","");//std is database name
35
             st = con.createStatement(); //moving to coonection url
             String qry = "insert into register values('"+Fname+"','"+Sname+"','"+Phone+"','"+email+"','"+Pass+"','"+Gender+"');";//info is table name
36
             st.executeUpdate(qry);
              out.print("Data inserted successfully");
39
40
42
           catch (Exception e)
44
```

```
History | 👺 👼 - 👼 - | 💆 👺 🚭 📑 | 🚱 😓 | 🛂 🛂 | ● 🔲 | 🕮 🚅
Source
 19
 20
            * @param request servlet request
            * @param response servlet response
 21
 22
            * @throws ServletException if a servlet-specific error occurs
            * @throws IOException if an I/O error occurs
 23
 24
 25
           protected void processRequest(HttpServletRequest request, HttpServletResponse response)
 26
                   throws ServletException, IOException {
               response.setContentType("text/html;charset=UTF-8");
 27
 28
               try ( PrintWriter out = response.getWriter()) {
 29
                   /* TODO output your page here. You may use following sample code. */
 30
 31
                   String userl=request.getParameter("user");
                   String Fnamel=request.getParameter("Fname");
 32
 33
                   String passl=request.getParameter("pass");
 34
 35
 36
                       Class.forName("com.mysql.jdbc.Driver"); //registered
 37
                       Connection c=DriverManager.getConnection("jdbc:mysql://localhost:3306/movietickets", "root", ""); //connected
 38
                       PreparedStatement ps=c.prepareStatement("select * from login where username=? and password=?");
 39
                       ps.setString(1, user1);
 40
                       ps.setString(2, pass1);
 41
                       ResultSet rs=ps.executeQuerv();
 42
                       RequestDispatcher rd.rdl:
 43
 44
                       while(rs.next()){
 45
                           if(rs.getString(1).equals(userl)&&rs.getString(1).equals(pass1)){
 46
 47
 48
                               rd=request.getRequestDispatcher("mainpage.jsp");
 49
                               rd.forward(request, response);
 50
                        }rdl=request.getRequestDispatcher("login.html");
 51
 52
                        out.println("The credentials are incorrect!!!");
                        rdl.include(request, response);
 53
 54
 catch(Exception e) {
                       e.printStackTrace();
 57
 58
 59
 60
 61
Sologin > processRequest > try > Fname1 >
Output ×
```

Login JSP Page



Email Notifications

Java Servlet:

```
...tm 📓 owl.carousel.min.js 🗴 🔞 buy-movie-ticket - Black Adam.html 🗴 🔞 buy-movie-ticket - Puss in Boots The Last Wish.html 🗡 🗊 EmailForm.jsp 🗴 🗟 EmailUtility.java 🗴 🕲 EmailSendingServlet.java 🗴
-
   import javax.servlet.http.HttpServletResponse;
10 📮 /**
      * A servlet that takes message details from user and send it as a new e-mail
12
      * through an SMTP server.
13
14
      * @author www.codejava.net
15
     */
16
17
     @WebServlet("/EmailSendingServlet")
     public class EmailSendingServlet extends HttpServlet {
        private String host;
         private String port;
21
         private String user;
22
         private String pass;
23
Q.
         public void init() {
             // reads SMTP server setting from web.xml file
25
26
             ServletContext context = getServletContext();
             host = context.getInitParameter("host");
28
             port = context.getInitParameter("port");
29
             user = context.getInitParameter("user");
30
             pass = context.getInitParameter("pass");
31
32
Q.i
         protected void doPost(HttpServletRequest request,
   早
34
                HttpServletResponse response) throws ServletException, IOException {
36
             String recipient = request.getParameter("recipient");
37
             String subject = request.getParameter("subject");
38
             String content = request.getParameter("content");
39
40
             String resultMessage = "";
41
42
43
                 EmailUtility.sendEmail(host, port, user, pass, recipient, subject,
```

Java Bean file:

```
...tm 🗟 owl.carousel.min.js × 🔞 buy-movie-ticket - Black Adam.html × 📵 buy-movie-ticket - Puss in Boots The Last Wish.html × 📦 EmailForm.jsp × 🚳 EmailUtility.java × 🔞 EmailSendingServlet.java ×
 Source History | 👺 🖫 - 🗐 - | 🕄 🐶 🖶 📮 | 🔗 😓 | 🔄 🖭 | 🐠 🔲 | 🕮 🚅
       import javax.mail.PasswordAuthentication;
       import javax.mail.Session;
       import javax.mail.Transport;
 10
       import javax.mail.internet.AddressException;
 11
       import javax.mail.internet.InternetAddress;
     import javax.mail.internet.MimeMessage;
 13
 15
16
       * A utility class for sending e-mail messages
* @author www.codejava.net
 17
 18
       public class EmailUtility {
        ♀
21
 22
23 📮
                    String subject, String message) throws AddressException,
                   MessagingException {
 25
                // sets SMTP server properties
                Properties properties = new Properties();
 27
28
               properties.put("mail.smtp.host", host);
properties.put("mail.smtp.port", port);
properties.put("mail.smtp.auth", "true");
 29
 30
               properties.put("mail.smtp.starttls.enable", "true");
 32
                // creates a new session with an authenticator
33 = 35 = 35
                Authenticator auth = new Authenticator() {
                   public PasswordAuthentication getPasswordAuthentication() {
                        return new PasswordAuthentication(userName, password);
 37
38
                1:
 39
                {\tt Session \ session = Session.} {\tt getInstance} \ ({\tt properties, \ auth}) \ ;
 40
                // creates a new e-mail message
 42
                Message msg = new MimeMessage(session);
                msg.setFrom(new InternetAddress(userName));
                InternetAddress[] toAddresses = { new InternetAddress(toAddress) };
 46
                msg.setRecipients(Message.RecipientType.TO, toAddresses);
 47
                msg.setSubject(subject);
                msg.setSentDate(new Date());
 49
                msg.setText(message);
```

PayPal Sandbox Configuration

Code:

```
635
              <script src="https://www.paypal.com/sdk/js?client-id=AToxfzX78w9nn-jwWlv8TueXZ9Dkt2ThG9U zrHSqxu2OgDAbC 1 s7jhYtcFqG7 lwDjvffUo0tjj ,</pre>
636
              <script>
637
               const paypalButtonsComponent = paypal.Buttons({
638
639
                   // https://developer.paypal.com/docs/checkout/standard/customize/buttons-style-guide/
640
641
                     color: "gold",
642
                     shape: "rect",
643
                     layout: "vertical"
644
645
646
                   // set up the transaction
647
                   createOrder: (data, actions) => {
648
                           pass in any options from the v2 orders create call:
649
                       // https://developer.paypal.com/api/orders/v2/#orders-create-request-body
650
                        const createOrderPayload = {
651
                          purchase_units: [
652
                               {
653
                                   amount: {
654
                                       value: "8.50"
655
656
657
658
                       };
659
660
                        return actions.order.create(createOrderPayload);
661
662
663
                   // finalize the transaction
664
                   onApprove: (data, actions) => {
665
                       const captureOrderHandler = (details) => {
666
                           const payerName = details.payer.name.given_name;
667
                           console.log('Transaction completed');
668
669
670
                       return actions.order.capture().then(captureOrderHandler);
```

References

https://github.com/hoc081098/Movie-Ticket-Booking

https://github.com/michalzaq12/movie-ticket-booking-system

https://www.youtube.com/watch?v=3ZHR1aQsmf0&list=PLF7Fmglq6SPDzaXuSmYRuKmzET9jNq8lB

-THE END-