“ONLINE VOTING SYSTEM”

Presented by:

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College State: Odisha

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SOURCE CODE

- ## login.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
	<title>Login Page</title>
</head>
<body>
	<h2>Login</h2>
	<form action="authenticate.jsp" method="post">
		Username: <input type="text" name="username" required><br>
		<input type="submit" value="Login">
	</form>
</body>
</html>
```

- ## Authenticate.jsp

```
<%@ page import="java.sql.*" %>
<%@ page import="java.io.*" %>
<%
String username = request.getParameter("username");

try	{ Class.forName("com.mysql.cj.jdbc.Driver"); Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/VotingSystem", "root","tiger");
	PreparedStatement ps = con.prepareStatement("SELECT * FROM Voters WHEREusername=?");
	ps.setString(1, username); ResultSet rs =
	ps.executeQuery();if (rs.next()) {
		session.setAttribute("username", username);
		response.sendRedirect("voting.jsp");
	} else {
		out.println("Invalid user!.");
	}
	con.close();
} catch(Exception e) {
	out.println(e);
}
%>
```

- ## Voting.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<%@ page import="java.io.*" %>
<%
String username = (String) session.getAttribute("username");
if (username == null) { response.sendRedirect("login.jsp");
}
```

```
String alreadyVoted = "no";
try { Class.forName("com.mysql.cj.jdbc.Driver"); Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/VotingSystem", "root","tiger");
        PreparedStatement ps = con.prepareStatement("SELECT voted FROM Voters WHEREusername=?");
        ps.setString(1, username); ResultSet rs =
        ps.executeQuery();if (rs.next()) {
                alreadyVoted = rs.getString("voted");
        }
        con.close();
} catch(Exception e) {
        out.println(e);
}
%>
<!DOCTYPE html>
<html>
<head>
        <title>Voting Page</title>
</head>
<body>
        <h2>Welcome <%= username %></h2>
        <% if (alreadyVoted.equals("yes")) { %>
                <p>You have already voted.</p>
                <a href="logout.jsp">Logout</a>
        <% } else { %>
                <form action="vote.jsp" method="post">
                        <input type="radio" name="vote" value="AAP">AAP<br>
                        <input type="radio" name="vote" value="BJP">BJP<br>
                        <input type="radio" name="vote" value="Congress">Congress<br>
                        <input type="radio" name="vote" value="None">None<br>
                        <input type="submit" value="Cast Vote">
                </form>
        <% } %>
</body>
</html>
```

- **Vote.jsp**

```
<%@ page import="java.sql.*" %>
<%@ page import="java.io.*" %>
<%
String vote = request.getParameter("vote");
String username = (String) session.getAttribute("username");

try { Class.forName("com.mysql.cj.jdbc.Driver"); Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/VotingSystem", "root","tiger");
        PreparedStatement psCheck = con.prepareStatement("SELECT voted FROM Voters WHEREusername=?");
        psCheck.setString(1, username); ResultSet rs =
        psCheck.executeQuery();if (rs.next()) {
                String alreadyVoted = rs.getString("voted");
                if (alreadyVoted.equals("yes")) {
                        response.sendRedirect("voting.jsp"); return;
                }
        }
```

```
        PreparedStatement psUpdate = con.prepareStatement("UPDATE Voters SET voted='yes'WHERE username=?");
        psUpdate.setString(1, username);
        psUpdate.executeUpdate();

        con.close();
} catch(Exception e) {
        out.println(e);
}
%>
<!DOCTYPE html>
<html>
<head>
        <title>Thank You</title>
</head>
<body>
        <h2>Thank You for Voting!</h2>
        <a href="logout.jsp">Logout</a>
</body>
</html>
```

- ## Logout.jsp

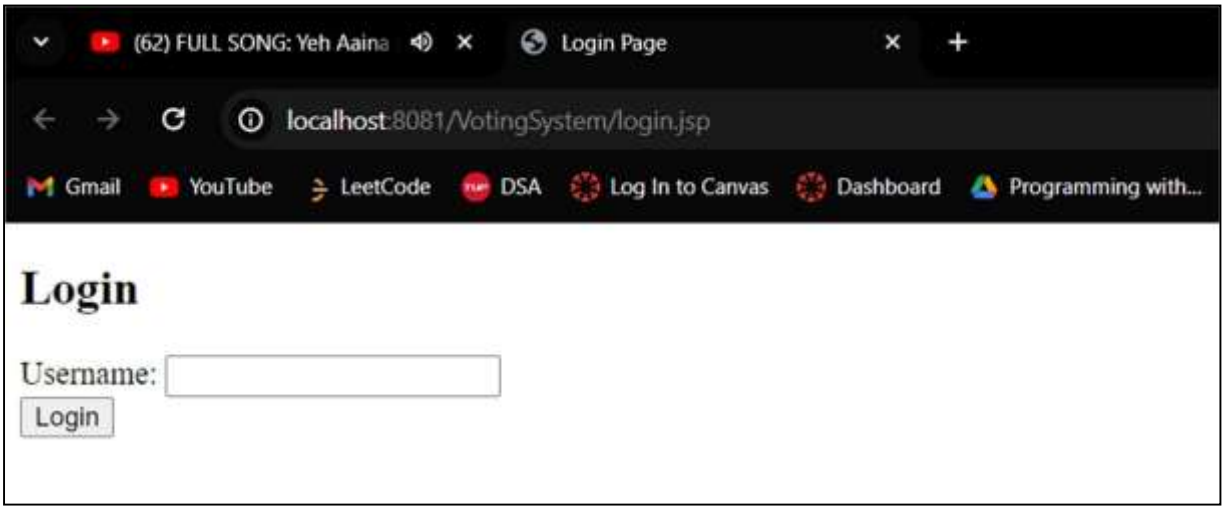
```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
session.invalidate(); response.sendRedirect("login.jsp");
%>
```

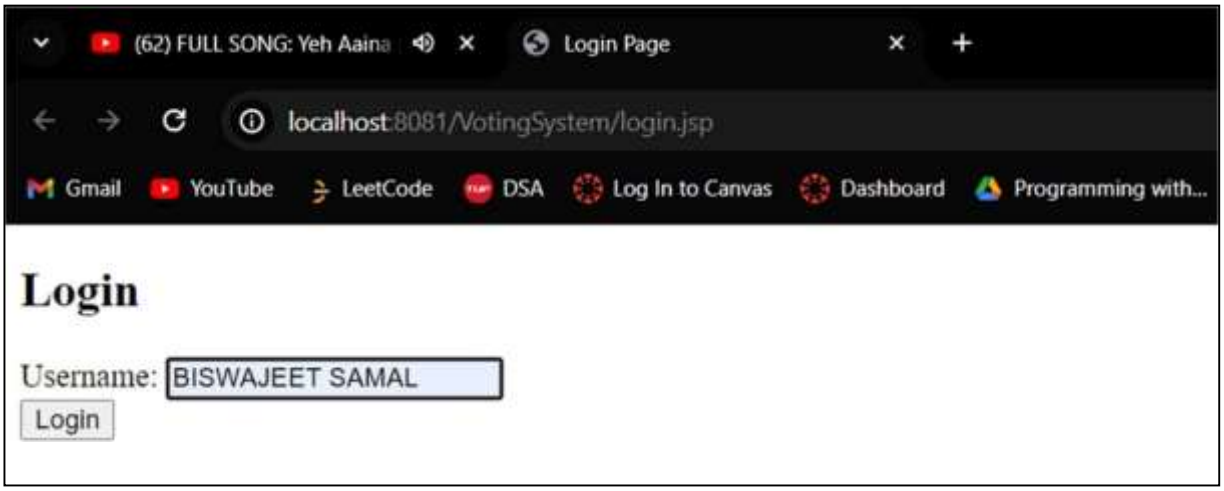
- ## SQL Queries:

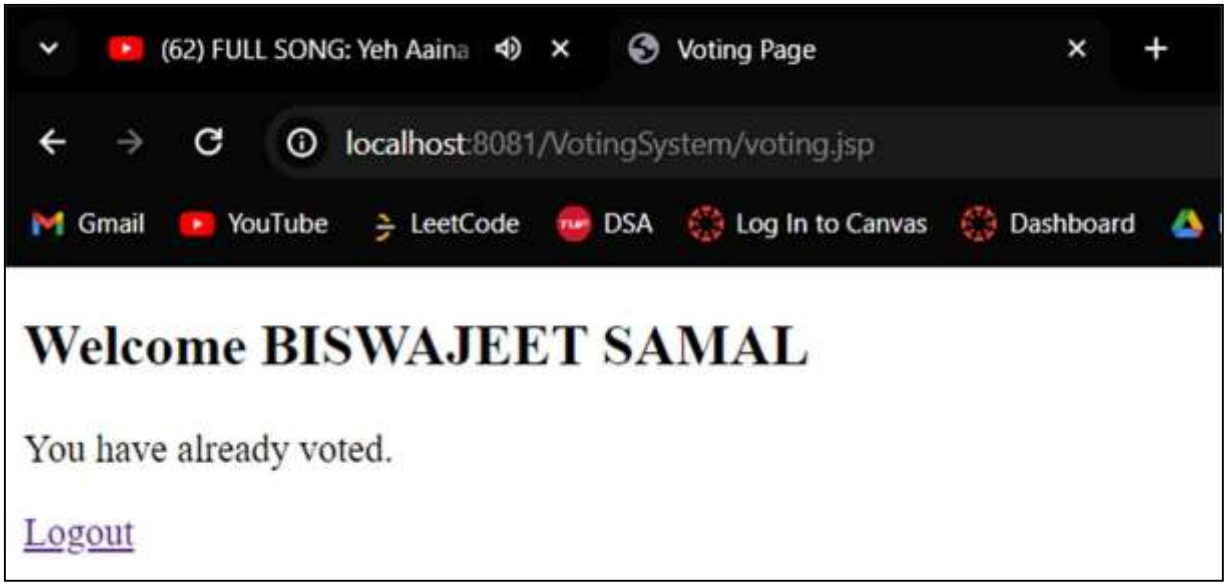
```
CREATE DATABASE VotingSystem;
USE VotingSystem;

CREATE TABLE Voters ( id
        INT PRIMARY KEY,
        username VARCHAR(50) UNIQUE,
        voted VARCHAR(50)
);

INSERT INTO Voters VALUES (1, 'BISWAJEET SAMAL', 'no'); INSERT
INTO Voters VALUES (2, ' RAJESH KUMAR GOUDA', 'no');INSERT INTO
Voters VALUES (3, 'ARPIT SHRIVASTAVA', 'no'); INSERT INTO Voters
VALUES (4, 'TANIYA ANSHU', 'no');
INSERT INTO Voters VALUES (5, 'SAJAN KUMAR', 'no');

select * from Voters;
```

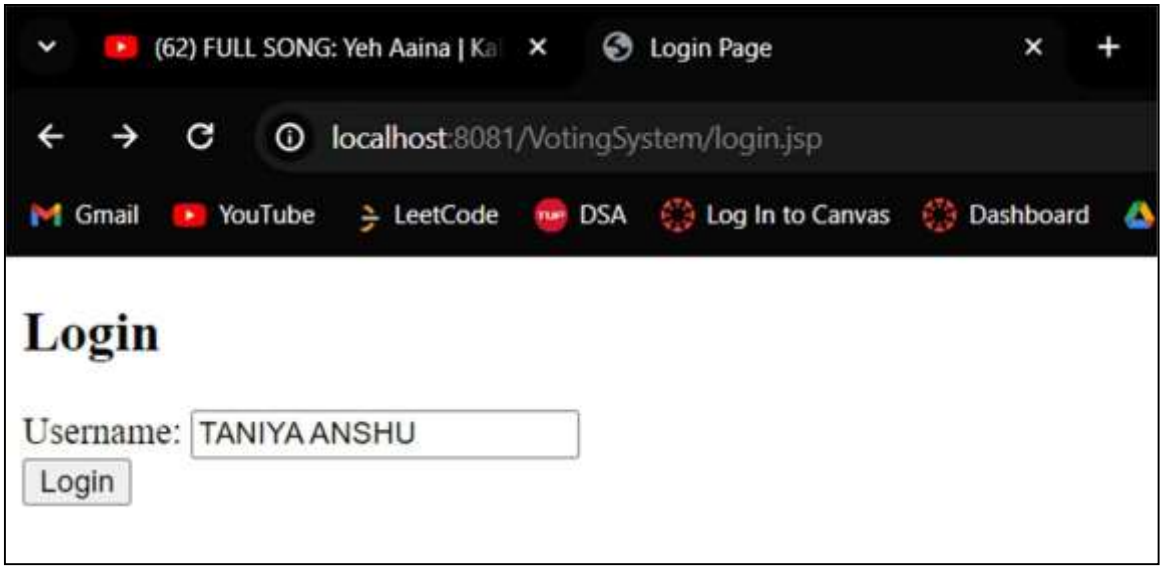
	id	username	voted
▶	1	BISWAJEET SAMAL	yes
	2	RAJESH KUMAR GOUDA	no
	3	ARPIT SHRIVASTAVA	no
	4	TANIYA ANSHU	no
	5	SAJAN KUMAR	no
*	NULL	NULL	NULL

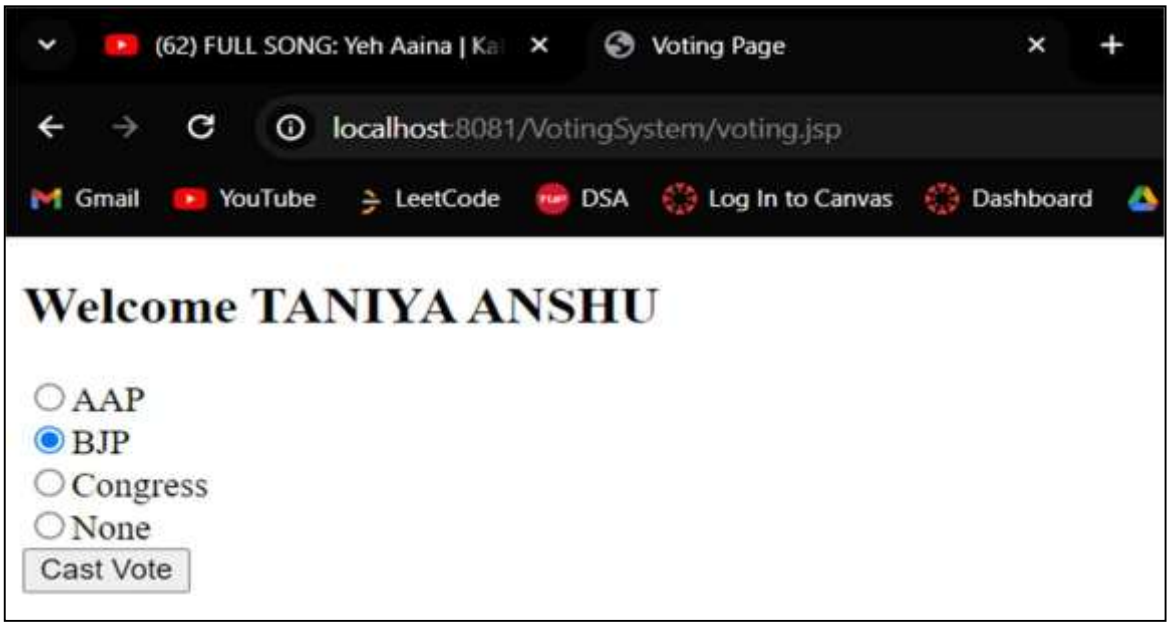
RESULTS


(62) FULL SONG: Yeh Aaina
Login Page
localhost:8081/VotingSystem/login.jsp
Gmail
YouTube
LeetCode
DSA
Log In to Canvas
Dashboard
Programming with...
Login
Username:
Login


(62) FULL SONG: Yeh Aaina
Login Page
localhost:8081/VotingSystem/login.jsp
Gmail
YouTube
LeetCode
DSA
Log In to Canvas
Dashboard
Programming with...
Login
Username:
BISWAJEET SAMAL
Login

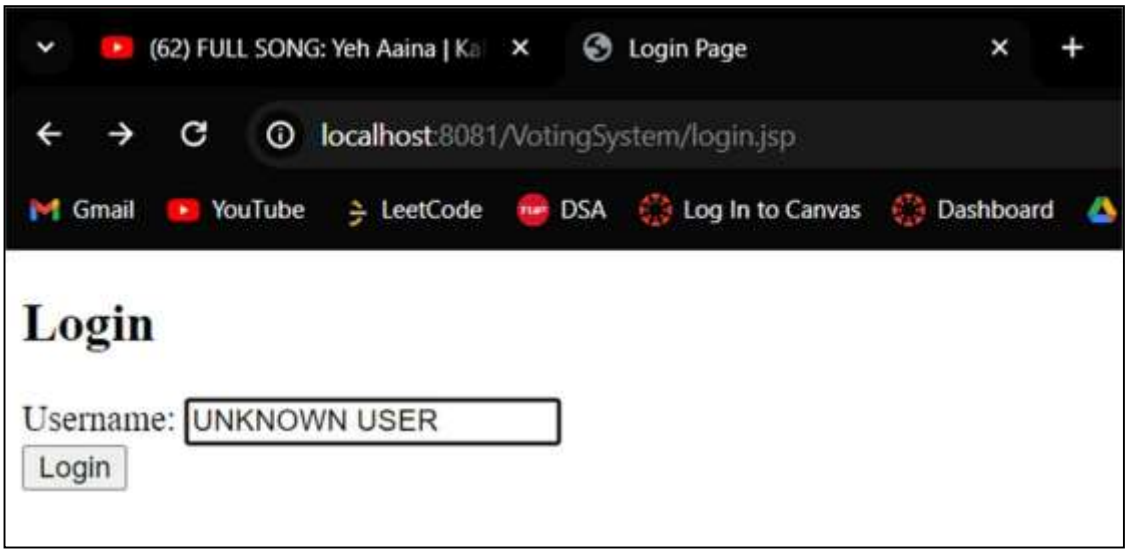

(62) FULL SONG: Yeh Aaina
Voting Page
localhost:8081/VotingSystem/voting.jsp
Gmail
YouTube
LeetCode
DSA
Log In to Canvas
Dashboard
Welcome BISWAJEET SAMAL
You have already voted.
Logout

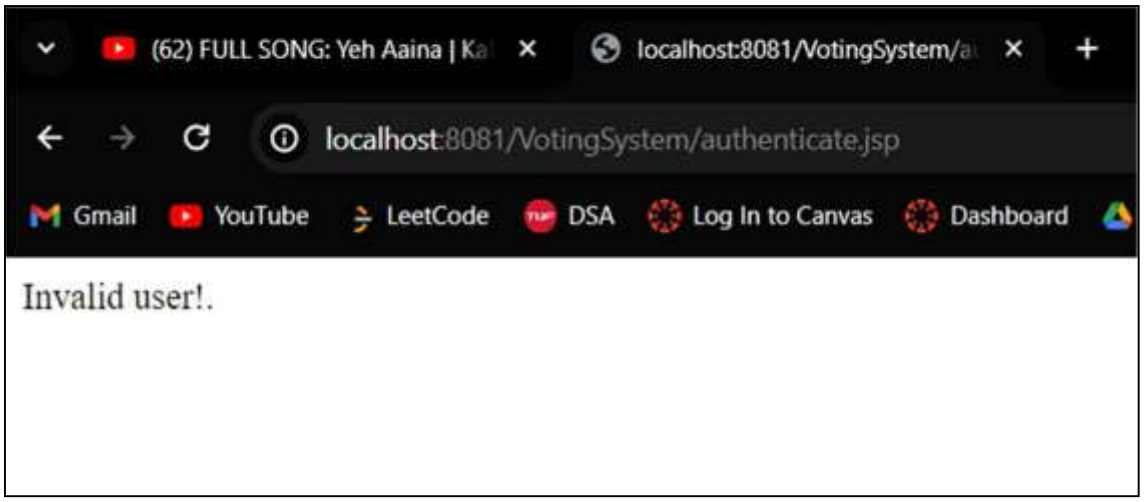

(62) FULL SONG: Yeh Aaina | Ka
Login Page
localhost:8081/VotingSystem/login.jsp
Gmail
YouTube
LeetCode
DSA
Log In to Canvas
Dashboard
Login
Username: TANIYA ANSHU
Login


(62) FULL SONG: Yeh Aaina | Ka
Voting Page
localhost:8081/VotingSystem/voting.jsp
Gmail
YouTube
LeetCode
DSA
Log In to Canvas
Dashboard
Welcome TANIYA ANSHU
AAP
BJP
Congress
None
Cast Vote


(62) FULL SONG: Yeh Aaina | Ka
Thank You
localhost:8081/VotingSystem/vote.jsp
Gmail
YouTube
LeetCode
DSA
Log In to Canvas
Dashboard
Thank You for Voting!
Logout

	id	username	voted
▶	1	BISWAJEET SAMAL	yes
	2	RAJESH KUMAR GOUDA	no
	3	ARPIT SHRIVASTAVA	no
	4	TANIYA ANSHU	yes
	5	SAJAN KUMAR	no
*	NULL	NULL	NULL





APPLICATION OF AN ONLINE VOTING SYSTEM

- Accessibility: Online voting systems make the electoral process more accessible to a wider range of people. Individuals with mobility issues, those living in remote areas, or expatriates can participate in elections without having to physically visit a polling station.

- Convenience: Voters can cast their ballots from anywhere with an internet connection and at any time within the designated voting period. This convenience encourages higher voter turnout and engagement.

- Cost-effectiveness: Online voting systems can significantly reduce the costs associated with traditional paper-based voting methods. There's no need for printing and distributing physical ballots, hiring polling staff, or renting polling locations.

- Environmental sustainability: By eliminating the need for paper ballots, online voting systems contribute to environmental sustainability by reducing paper waste and carbon emissions associated with transportation and disposal.

- Security: While security concerns are paramount in any voting system, online voting systems can be designed with robust security measures to ensure the integrity and confidentiality of the electoral process. Encryption, authentication protocols, and audit trails can help safeguard against fraud and manipulation.

- Real-time results: Online voting systems can provide real-time results as soon as the voting period ends, eliminating the need for manual counting and tabulation. This rapid feedback enhances transparency and trust in the election process.

The development and implementation of an online voting system represent a pivotal step towards modernizing the electoral process and enhancing democratic participation. With the widespread adoption of the internet and increasing demands for convenience, accessibility, and sustainability, online voting systems offer a compelling solution to address these evolving needs.

By using technologies such as Java Server Pages (JSP), HTML, and JDBC, online voting systems can provide a seamless user experience while ensuring the highest standards of security, reliability, and adaptability. These systems enable voters to cast their ballots from anywhere at any time, thereby increasing voter turnout and engagement. Moreover, online voting systems offer cost-effective and environmentally sustainable alternatives to traditional paper-based voting methods, while also providing real-time results and customizable features to cater to diverse voting scenarios.

While challenges related to security and trust must be addressed, the benefits of online voting systems in terms of accessibility, convenience, cost-effectiveness, and transparency outweigh the risks. Moving forward, continued efforts to enhance the security and accessibility of online voting systems will be essential to building trust and confidence among stakeholders and ensuring the integrity of the electoral process in the digital age.

REFERENCES

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