Code Review Plan/Checklist

Before conducting the code review, the following checklist will guide the review process:

Category	Checklist Item
Functionality	Does the code perform the required functionality correctly?
Code Structure and Readability	Is the code easy to understand and well-organized?
Standards Compliance	Does the code follow the project's coding standards?
Error Handling	Does the code handle errors and exceptions?
Performance	Is the code efficient and free from unnecessary complexity?

Login.html:

```html
<form id="login-form">
  <label for="username">Username:</label>
  <input type="text" id="username" required>
  <label for="password">Password:</label>
  <input type="password" id="password" required>
  <button type="submit">Login</button>
</form>
```

Server.js:

```js
app.post("/login", async (req, res) => {
  const { username, password, role } = req.body;

  try {
    await sql.connect(config);
    const request = new sql.Request();

    let query;
    if (role === "admin") {
```

```
      query = `SELECT * FROM Administrators WHERE username = '${username}' AND password =
'${password}'`;

    } else if (role === "client") {

      query = `SELECT * FROM Clients WHERE username = '${username}' AND password =
'${password}'`;

    } else if (role === "coach") {

      query = `SELECT * FROM Coaches WHERE username = '${username}' AND password =
'${password}'`;

    }


    const result = await request.query(query);


    if (result.recordset.length > 0) {

      res.json({ success: true, role, id: result.recordset[0].ClientID || result.recordset[0].CoachID ||
result.recordset[0].AdminID });

    } else {

      res.json({ success: false, message: "Invalid username or password." });

    }

  } catch (err) {

    console.error("Error during login:", err);

    res.status(500).json({ success: false, message: "Error during login." });

  } finally {

    sql.close();

  }

});
```

Code Review Meeting
Functionality to Review: Client Login
The code under review is the **client login functionality** in the login.html and server.js files.
Walkthrough

- The author (you) walks through the client login functionality, explaining how it authenticates users and redirects them to the client dashboard.
- The team uses the checklist to evaluate the functionality.

Checklist Review and Comments
1. **Functionality**:
   o The login functionality works as expected for valid credentials.
2. **Code Structure and Readability**:
   o The code is easy to understand and well-organized.
3. **Standards Compliance**:
   o The code follows the project's coding standards.
4. **Error Handling**:
   o The code handles errors and exceptions appropriately.
5. **Performance**:
   o The code is efficient and free from unnecessary complexity.

Agreed Actions
- No changes are required at this time.

Results of the Code Review
- **Functionality**: The login functionality works as expected.
- **Code Structure and Readability**: The code is easy to understand and well-organized.
- **Standards Compliance**: The code follows the project's coding standards.
- **Error Handling**: The code handles errors and exceptions appropriately.
- **Performance**: The code is efficient and free from unnecessary complexity.