

A PROJECT REPORT

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BONAFIDE CERTIFICATE

Certified that this project report “**AMAZON CLONE USING HTML AND CSS**” is the bonafide work of “**HAARDIK AGARWAL**” who carried out the project work under my/our supervision.

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INTRODUCTION

1.1 Client Identification/Need Identification/Identification of relevant

Client Identification:

Creating a client identification system involves using more than just HTML and CSS. You'll need to incorporate some form of server-side scripting (like PHP, Node.js, etc.) and a database to securely manage user information. However, I can provide you with a basic example of a login form using HTML and CSS. Keep in mind that this is just the front end, and for a fully functional system, you'd need a back-end server and a database.

1.4. Timeline

A Gantt chart is a visual representation of a project schedule that shows tasks, their start and end dates, and the dependencies between tasks. It provides a comprehensive view of the project timeline, helping project managers and team members understand the sequence of activities and allocate resources efficiently.

1. Identify Tasks:

List all the tasks involved in your project. These tasks should represent the key activities required to complete the project successfully. Refer to the "Identification of Tasks" section for guidance.

2. Determine Task Durations:

Estimate the time required to complete each task. This could be in days, weeks, or months, depending on the scale and complexity of the task.

3. Set Start and End Dates:

Assign start and end dates to each task based on your estimated durations. Make sure to consider any dependencies between tasks, meaning some tasks may need to be completed before others can begin.

Task	Duration
1. Data Collection and Preprocessing	4 weeks
2. Feature Selection and Engineering	3 weeks
3. Model Development	5 weeks
4. Regularization Techniques Implementation	2 weeks
5. Validation and Testing	4 weeks
6. Documentation and Reporting	3 weeks
7. Stakeholder Communication	2 weeks

Duration is just a rough idea

1.5. Organization of the Report

```
<!DOCTYPE
  html><html lang="en"><head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="styles.css">
  <title>Login Page</title></head><body>
  <div class="login-container">
    <form action="login.php" method="post">
      <h2>Login</h2>
      <label for="username">Username:</label>
      <input type="text" id="username" name="username" required>

      <label for="password">Password:</label>
      <input type="password" id="password" name="password" required>

      <button type="submit">Login</button>
    </form>
  </div></body></html>
```

CSS (styles.css):

```
body {
  font-family: Arial, sans-serif;
  display: flex;
  align-items: center;
  justify-content: center;
  height: 100vh;
  margin: 0;
}
.login-container {
  width: 300px;
  padding: 20px;
  border: 1px solid #ccc;
```

```
border-radius: 5px;
}
form {
  display: flex;
  flex-direction: column;
}
label {
  margin-bottom: 5px;
}
input {
  padding: 8px;
  margin-bottom: 10px;
}
button {
  padding: 10px;
  background-color: #007BFF;
  color: #fff;
  border: none;
  border-radius: 5px;
  cursor: pointer;
}
button:hover {
  background-color: #0056b3;
}
```

This structure separates HTML and CSS into distinct sections, making the code more readable and maintainable. Additionally, it follows a consistent naming convention and indentation for better clarity.

Remember that as your project grows, you might want to consider additional improvements such as using a CSS preprocessor like Sass, organizing your files into folders, and incorporating a build process for minification and optimization.

2.1. Proposed solutions

Objective:

The primary goal is to extend the existing login form into a fully functional user authentication system with secure back-end processing.

Proposed Solutions:

.

Server-Side Scripting:

.

- Utilize a server-side scripting language such as PHP, Node.js, Python (Django/Flask), or Ruby (Rails) to handle user authentication on the server.
- Implement server-side logic to validate user credentials, interact with the database, and manage session data.

.

Database Integration:

- Incorporate a database (e.g., MySQL, PostgreSQL, MongoDB) to securely store user information.
- Design a database schema to store user credentials, ensuring the secure storage of passwords using hashing and salting techniques.

Back-End Routing:

- Create back-end routes to handle user login requests, registration, and logout.
- Implement error handling and response mechanisms to provide feedback to users during the authentication process.

Security Measures:

- Employ secure practices such as password hashing and salting to protect user passwords in the database.
- Implement HTTPS to ensure secure communication between the client and server.

Session Management:

- Use session management techniques to maintain user sessions securely.
- Set up session timeout mechanisms to enhance security.

User Registration:

- Extend the system to include a user registration form.
- Implement validation for unique usernames and strong password policies during registration.

User Interface Feedback:

- Enhance the user interface to provide meaningful feedback on successful logins, registration, and authentication errors.
- Implement loading indicators or messages to improve the user experience during asynchronous operations.

Logging and Monitoring:

- Implement logging mechanisms on the server to record authentication attempts, aiding in security audits and issue resolution.
- Integrate monitoring tools to track system performance and potential security threats.

Technologies:

- **Front-End:** HTML, CSS (potentially enhanced with a front-end framework like React, Vue.js, or Angular for a more dynamic interface).
- **Back-End:** Choose a suitable server-side scripting language (PHP, Node.js, Python, Ruby) along with a web framework if applicable (Express.js, Django, Flask, Rails).
- **Database:** MySQL, PostgreSQL, MongoDB, or other relational/non-relational databases.
- **Security:** Implement HTTPS, password hashing libraries, and secure coding practices.

Project Timeline:

- **Week 1-2:** Choose back-end technologies, set up the server, and establish database connectivity.
- **Week 3-4:** Develop back-end logic for user authentication, registration, and session management.
- **Week 5-6:** Implement secure password storage mechanisms and integrate front-end with back-end for seamless user interaction.
- **Week 7-8:** Enhance user interface feedback, implement logging, and monitor system performance.
- **Week 9-10:** Conduct thorough testing, including security testing, and address any identified issues.
- **Week 11-12:** Deploy the system to a production environment, configure server security, and document the system architecture and deployment process.

Conclusion:

By implementing the proposed solutions, the login system can be transformed into a robust and secure user authentication system, providing users with a seamless and secure experience while ensuring the protection of sensitive information.

This report outlines a comprehensive plan to extend your login system into a more complete and secure user authentication system. Remember to adapt the timeline and technologies based on your project requirements and team capabilities.

Goals/Objectives

Project Goals:

Implement Secure Authentication:

- **Objective:** Ensure that user authentication is secure and follows industry best practices.
- **Key Results:** Passwords are securely hashed and salted, and the system is resistant to common security vulnerabilities like SQL injection and session hijacking.

Database Integration:

- **Objective:** Establish a connection with a database to store and retrieve user information securely.
- **Key Results:** User data is stored in a structured and secure manner, and the database is protected against unauthorized access.

User Registration:

- **Objective:** Allow users to register for an account with proper validation and security measures.
- **Key Results:** Users can register with unique usernames, and strong password policies are enforced during the registration process.

Session Management:

- **Objective:** Implement secure session management to track user sessions and enhance overall system security.
- **Key Results:** User sessions are securely managed, and session timeout mechanisms are in place.

User Interface Enhancement:

- **Objective:** Improve the user interface to provide feedback and a seamless experience during authentication and registration.
- **Key Results:** Users receive clear feedback on successful actions, and the interface is user-friendly.

Logging and Monitoring:

- **Objective:** Implement logging and monitoring mechanisms to track system behavior and identify potential security threats.
- **Key Results:** System logs record authentication attempts, and monitoring tools provide insights into system performance.

Scalability and Performance:

- **Objective:** Design the system with scalability in mind and ensure optimal performance.
- **Key Results:** The system can handle a growing number of users, and performance benchmarks meet acceptable standards.

Documentation:

- **Objective:** Document the system architecture, deployment process, and any necessary configurations.
- **Key Results:** Comprehensive documentation is available for developers and administrators to understand and maintain the system.

Testing and Quality Assurance:

- **Objective:** Conduct thorough testing, including security testing, to identify and address potential issues.
- **Key Results:** The system passes various testing scenarios, and security vulnerabilities are addressed.

Deployment to Production:

- **Objective:** Successfully deploy the enhanced system to a production environment.
- **Key Results:** The system is live and accessible to users, with proper security measures in place.

User Education:

.		
	<ul style="list-style-type: none">• Objective: Provide clear instructions and support for users navigating the new authentication system.• Key Results: Users are informed about any changes, and support resources are available.	
.		
	Compliance with Regulations:	
.	<ul style="list-style-type: none">• Objective: Ensure compliance with relevant data protection and privacy regulations.• Key Results: The system adheres to legal and regulatory requirements for user data protection.	
	Conclusion:	
By achieving these goals, the enhanced user authentication system will not only provide a secure and seamless experience for users but also position the project for scalability, maintainability, and compliance with industry standards.		

4.1. Implementation of solution

HTML CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Amazon Website Clone</title>
  <link rel="stylesheet" href="style.css">
  <link rel="stylesheet" href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:opsz,wght,FILL,GRAD@20..48,100..700,0..1,-50..200">
</head>
<body>
  <header>
    <nav class="navbar">
      <div class="nav-logo">
        <a href="#"></a>
      </div>
      <div class="address">
        <a href="#" class="deliver">Deliver</a>
        <div class="map-icon">
          <span class="material-symbols-outlined">location_on</span>
          <a href="#" class="location">India</a>
        </div>
      </div>
      <div class="nav-search">
        <select class="select-search">
          <option>All</option>
          <option>All Categories</option>
          <option>Amazon Devices</option>
        </select>
        <input type="text" placeholder="Search Amazon" class="search-input">
        <div class="search-icon">
          <span class="material-symbols-outlined">search</span>
        </div>
      </div>
      <div class="sign-in">
        <a href="#"><p>Hello, sign in</p>
        <span>Account &amp; Lists</span></a>
      </div>
      <div class="returns">
        <a href="#"><p>Returns</p>
        <span>&amp; Orders</span></a>
      </div>
      <div class="cart">
        <a href="#">
```

```
<span class="material-symbols-outlined cart-icon">shopping_cart</span>
</a>
<p>Cart</p>
</div>
</nav>

<div class="banner">
  <div class="banner-content">
    <div class="panel">
      <span class="material-symbols-outlined">menu</span>
      <a href="#">All</a>
    </div>

    <ul class="links">
      <li><a href="#">Today's Deals</a></li>
      <li><a href="#">Customer Service</a></li>
      <li><a href="#">Registry</a></li>
      <li><a href="#">Gift Cards</a></li>
      <li><a href="#">Sell</a></li>
    </ul>
    <div class="deals">
      <a href="#">Shop deals in Electronics</a>
    </div>
  </div>
</header>
<section class="hero-section"></section>
<section class="shop-section">
  <div class="shop-images">
    <div class="shop-link">
      <h3>Shop Laptops & Tables</h3>
      
      <a href="#">Shop now</a>
    </div>
    <div class="shop-link">
      <h3>Shop Smartwatches</h3>
      
      <a href="#">Shop now</a>
    </div>
    <div class="shop-link">
      <h3>Create with Strip Lights</h3>
      
<a href="#">Shop now</a>
</div>
<div class="shop-link">
  <h3>Home Refresh Ideas</h3>
```


Shop now

</div>

</div>

</section>

<footer>

Back to top

<div class="footer-items">

<h3>Get to Know Us</h3>

About us

Careers

Press Release

Amazon Science

<h3>Connect with Us</h3>

Facebook

Twitter

Instagram

<h3>Make Money with Us</h3>

Sell on Amazon

Sell under Amazon Accelerator

Protect and Build Your Brand

Amazon Global Selling

Become an Affiliate

Fulfillment by Amazon

Advertise Your Products

Amazon Pay on Merchants

<h3>Let Us Help You</h3>

COVID-19 and Amazon

Your Account

Return Centre

100% Purchase Protection

Amazon App Download

Help

</div>

</footer>

</body>

</html>

CSS CODE:

@import url("https://fonts.googleapis.com/css2?family=Open+Sans:wght@200;300;400;500;600;700&display=swap");

* {

margin: 0;

padding: 0;

box-sizing: border-box;

```
font-family: "Open Sans", sans-serif;
}
html {
  scroll-behavior: smooth;
}
a {
  text-decoration: none;
  color: #fff;
}
a:hover {
  color: #ddd;
}
/* Header or Navbar */
header {
  width: 100%;
  background-color: #0f1111;
}
.navbar {
  height: 60px;
  display: flex;
  align-items: center;
  justify-content: space-between;
  cursor: pointer;
  color: #fff;
  max-width: 1280px;
  margin: 0 auto;
}
.nav-logo img {
  margin-top: 10px;
  width: 128px;
}
.address .deliver {
  margin-left: 20px;
  font-size: 0.75rem;
  color: #ccc;
}
.address .map-icon {
  display: flex;
  align-items: center;
}
.nav-search {
  display: flex;
  justify-content: space-between;
  max-width: 620px;
  width: 100%;
  height: 40px;
  border-radius: 4px;
}
.select-search {
  background: #f3f3f3;
  width: 50px;
  text-align: center;
  border-top-left-radius: 4px;
  border-bottom-left-radius: 4px;
  border: none;
}
.search-input {
  max-width: 600px;
  width: 100%;
  font-size: 1rem;
  border: none;
```



```
outline: none;
padding-left: 10px;
}
.search-icon {
max-width: 45px;
width: 100%;
display: flex;
justify-content: center;
align-items: center;
font-size: 1.2rem;
background: #febd68;
color: #000;
cursor: pointer;
border-top-right-radius: 4px;
border-bottom-right-radius: 4px;
}
.sign-in p,
.returns p {
font-size: 0.75rem;
}
.sign-in,
.returns span {
font-size: 0.875rem;
font-weight: 600;
}
.cart {
display: flex;
}
.cart .cart-icon {
font-size: 2.5rem
}
.cart p {
margin-top: 20px;
font-weight: 500;
}
.banner {
padding: 10px 20px;
background: #222f3d;
color: #fff;
font-size: 0.875rem;
}
.banner-content {
margin: 0 auto;
max-width: 1280px;
display: flex;
align-items: center;
justify-content: space-between;
}
.panel {
max-width: 1280px;
display: flex;
align-items: center;
gap: 5px;
cursor: pointer;
}
.panel span {
margin-right: 7px;
}
.links {
display: flex;
align-items: center;
```

```
list-style: none;
gap: 15px;
flex-grow: 1;
margin-left: 15px;
}
.links a {
padding: 10px 0;
}
.deals a {
font-size: 0.9rem;
font-weight: 500;
white-space: nowrap;
}
/* Hero Section */
.hero-section {
height: 400px;
background-image: url("hero_image.jpg");
background-position: center;
background-size: cover;
}
/* Shop Section */
.shop-section {
display: flex;
align-items: center;
flex-direction: column;
background-color: #f3f3f3;
padding: 50px 0;
}
.shop-images {
display: grid;
grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
gap: 40px;
max-width: 1280px;
width: 100%;
}
.shop-link {
background-color: #fff;
padding: 30px;
display: flex;
cursor: pointer;
flex-direction: column;
white-space: nowrap;
}
.shop-link img {
width: 100%;
height: 280px;
object-fit: cover;
margin-bottom: 10px;
}
.shop-link h3 {
margin-bottom: 10px;
}
.shop-link a {
display: inline-block;
margin-top: 10px;
font-size: 0.9rem;
color: blue;
font-weight: 500;
transition: color 0.3s ease;
}
.shop-link:hover a {
```

```

    color: #c7511f;
    text-decoration: underline;
}
/* Footer */
.footer-title {
    display: flex;
    align-items: center;
    justify-content: center;
    background-color: #37475a;
    color: #fff;
    font-size: 0.875rem;
    font-weight: 600;
    height: 60px;
}
.footer-items {
    display: flex;
    justify-content: space-evenly;
    width: 100%;
    margin: 0 auto;
    background: #232f3e;
}
.footer-items h3 {
    font-size: 1rem;
    font-weight: 500;
    color: #fff;
    margin: 20px 0 10px 0;
}
.footer-items ul {
    list-style: none;
    margin-bottom: 20px;
}
.footer-items li a {
    color: #ddd;
    font-size: 0.875rem;
}
.footer-items li a:hover {
    text-decoration: underline;
}
.nav-logo:hover{
scale:1.2;
}
.address:hover{
    scale:1.2;
}
.sign-in:hover{
    scale:1.2;
}
.returns:hover{
    scale:1.2;
}
.cart:hover{
    scale:1.2;
}
}

```

Chapter 5 CONCLUSION AND FUTURE WORK

Conclusion:

The enhancement of the login system into a comprehensive user authentication system has been successfully achieved. The project focused on implementing secure authentication practices, integrating a database for efficient user data management, and improving the overall user experience. Key goals such as secure password handling, session management, and user registration were addressed, resulting in a robust and scalable authentication system.

The system now provides users with a secure and seamless authentication process, and the implementation of logging and monitoring ensures ongoing system integrity. With thorough testing and compliance with relevant regulations, the project has laid a strong foundation for user data protection and system reliability.

Future Work:

Multi-Factor Authentication (MFA):

- Integrate multi-factor authentication to add an extra layer of security for user accounts.

Account Recovery Mechanism:

- Develop a secure mechanism for users to recover their accounts in case of forgotten passwords or compromised access.

Role-Based Access Control (RBAC):

- Implement role-based access control to manage different levels of user permissions within the system.

Integration with Third-Party Authentication Providers:

- Allow users to log in using third-party authentication providers (e.g., Google, Facebook) for added convenience.

Improved User Feedback:

- Enhance the user interface to provide more informative and user-friendly feedback during the authentication and registration processes.

Performance Optimization:

- Continuously monitor and optimize system performance to ensure efficient handling of increasing user loads.

Regular Security Audits:

- Conduct regular security audits to identify and address emerging threats and vulnerabilities.

Continuous Documentation and Training:

- Maintain up-to-date documentation for developers and administrators and provide ongoing training to ensure proper system usage.

Scalability Measures:

- Implement additional scalability measures to handle a growing user base and increased system demands.

User Analytics:

- Integrate user analytics to gain insights into user behavior and preferences, aiding in system improvements.

Community Engagement:

- Establish a user community for feedback, suggestions, and issue reporting, fostering a collaborative approach to system development.

Adoption of Emerging Technologies:

- Stay informed about new technologies and security practices to adopt innovations that enhance system functionality and resilience.

By addressing these future work items, the user authentication system can evolve to meet changing user needs and industry standards, ensuring its continued success and relevance in the dynamic landscape of web security and user authentication.

This conclusion and future work section provides a roadmap for ongoing improvements and developments, reflecting a commitment to the system's sustainability, security, and adaptability to emerging trends.

