

Atlantic_Ecommerce_App

by Sahil Sojitra

Submission date: 06-Apr-2023 06:05PM (UTC+0530)

Submission ID: 2057510634

File name: 20IT146_Atlantic_Technical_Paper.pdf (626.48K)

Word count: 1343

Character count: 7474

Atlantic Ecommerce App

20IT146 – Sahil Sojitra

Smt. Kundaben Dinsha Patel Department of Information Technology
Charotar University of Science and Technology, Anand, Gujarat, India

20it146@charusat.edu.in

Guide: Nishat Shaikh

Abstract:

This technical paper presents the development process and architecture of the Atlantic Ecommerce App, an intuitive and user-friendly mobile application for purchasing hardware and home improvement products. The app was developed using Flutter and Dart, and it features a scalable database built using Firestore and MongoDB to store user information and purchase history. To provide complex backend functionality, GoLang was utilized, and an efficient and user-friendly admin panel was created using React JS to manage product listings, orders, and customer data.

Introduction:

With the rise of e-commerce, the demand for mobile applications that offer a seamless and intuitive experience for online shopping has increased rapidly. Atlantic Ecommerce App is an application designed to cater to the needs of customers who wish to purchase hardware and home improvement products from the comfort of their homes. The app offers a range of products from different brands, making it easier for customers to find what they are looking for. The app was developed using Flutter and Dart, two powerful tools that allowed us to create a user-friendly and efficient application that runs smoothly on both Android platforms.

Database Architecture:

To ensure a scalable and reliable database, we utilized Firestore and MongoDB.

Firestore is a NoSQL document-based database that offers real-time synchronization and automatic scaling, making it ideal for a mobile application. MongoDB is another NoSQL database that provides a flexible and scalable schema design, making it ideal for handling large amounts of unstructured data. We used these databases to store user information, purchase history, and product data.

Backend Development:

To provide complex backend functionality, we utilized GoLang. GoLang is a powerful language that offers high-performance and low-latency, making it ideal for building web applications. We used GoLang to handle tasks such as user authentication, order processing, and inventory management.

Admin Panel Development:

To manage product listings, orders, and customer data efficiently, we created an efficient and user-friendly admin panel using React JS. React JS is a popular JavaScript library that offers a flexible and scalable approach to building user interfaces. We used React JS to build an admin panel that is easy to navigate and allows administrators to perform tasks such as adding or editing product listings, managing orders, and accessing customer data.

Work Done:

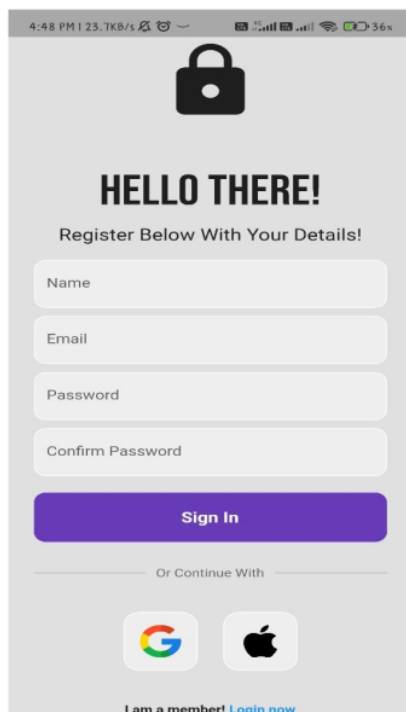
1. Login Page:

The login page of the Atlantic Ecommerce App was designed to provide a seamless and secure experience for users. We added Firebase Authentication to the login page, which allows users to log in using either their Google account or email address and password. This provided users with a convenient and familiar way to log in, while also ensuring the security of their personal information.


To log in using their Google account, users simply had to click the "Sign in with Google" button on the login page. Alternatively, users could log in using their email address and password. They would enter their credentials on the login page, and the app would authenticate their information using Firebase Authentication. If the credentials were correct, the user would be logged in and directed to the home screen of the app.

We also implemented features such as password reset and email verification to ensure the security of user accounts. If a user forgot their password, they could reset it by clicking on the "Forgot Password" link on the login page. This would send an email to their registered email address with instructions on how to reset their password. In addition, we added email verification to the login process, which required users to verify their email address before accessing certain features of the app.

Overall, the login page with Firebase Authentication provided a secure and convenient way for users to log in to the Atlantic Ecommerce App.



4:48 PM | 23.7KB/s





HELLO THERE!

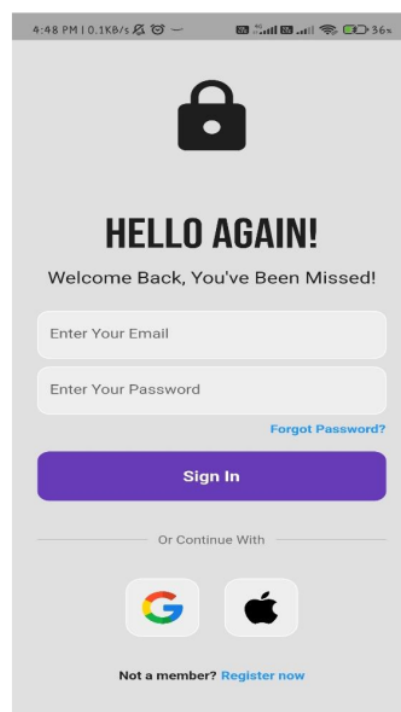
Register Below With Your Details!

[Sign In](#)


Or Continue With

I am a member! [Login now](#)



4:48 PM | 0.1KB/s





HELLO AGAIN!

Welcome Back, You've Been Missed!

[Forgot Password?](#)

[Sign In](#)

Or Continue With

Not a member? [Register now](#)

2. Home Page:

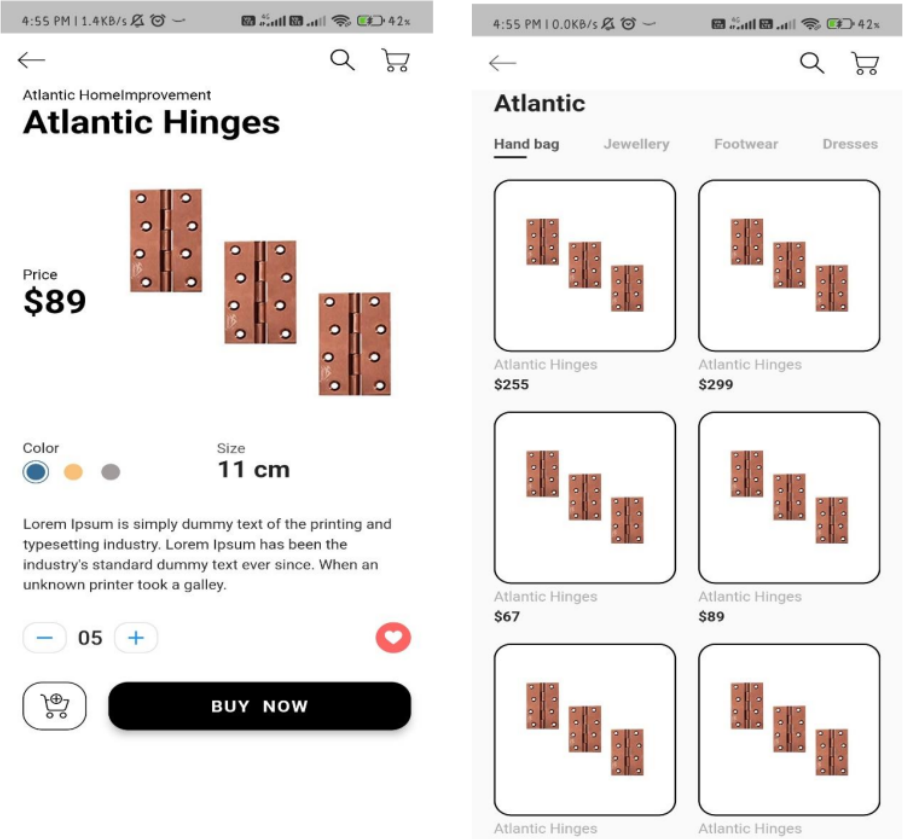
The home page of the Atlantic Ecommerce App was designed to provide users with a visually appealing and intuitive interface to browse and purchase products. Here are some of the key features of the home page:

Product categories: The home page featured a menu bar at the top of the screen with different product categories, such as "Hardware," "Home Improvement," and "Outdoor Living." Users could click on a category to view products related to that category.

Product showcase: The home page displayed a selection of featured products, along with images and prices. This allowed users to quickly browse through popular items and make purchase decisions based on their interests.

Search bar: The home page had a search bar at the top of the screen, which allowed users to search for products based on keywords or product names.

Overall, the home page of the Atlantic Ecommerce App was designed to provide a visually appealing and intuitive interface that made it easy for users to browse and purchase products. The different features and sections of the home page were organized in a way that allowed users to quickly find what they were looking for and make informed purchase decisions.



Admin Panel:

The admin panel of the Atlantic Ecommerce App was developed using React JS and Golang, with JWT authentication to ensure secure access to the panel. Here are some key features of the admin panel:

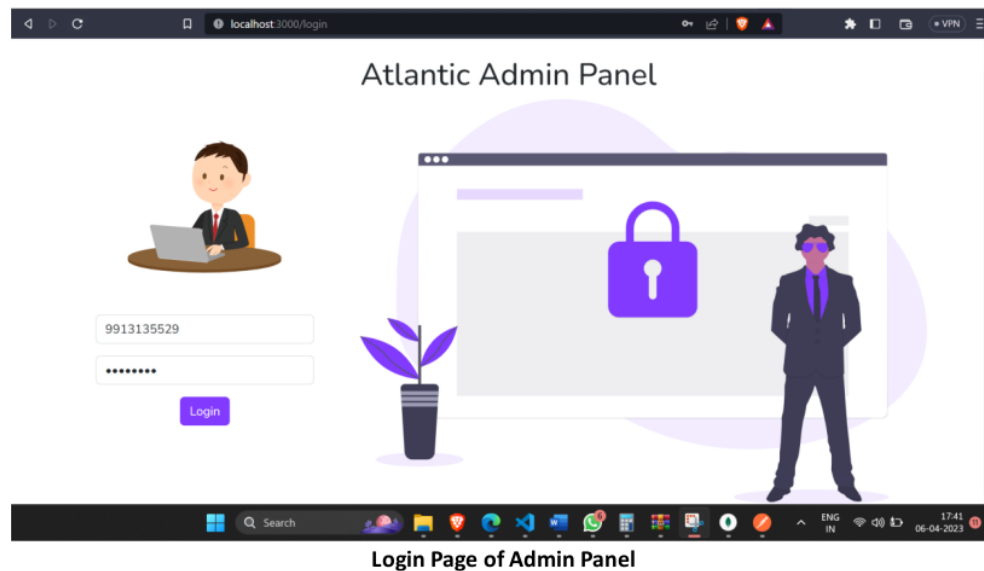
User authentication: The admin panel required users to log in using their email address and password, which were authenticated using JWT authentication. This ensured that only authorized users could access the panel and make changes to product listings, orders, and customer data.

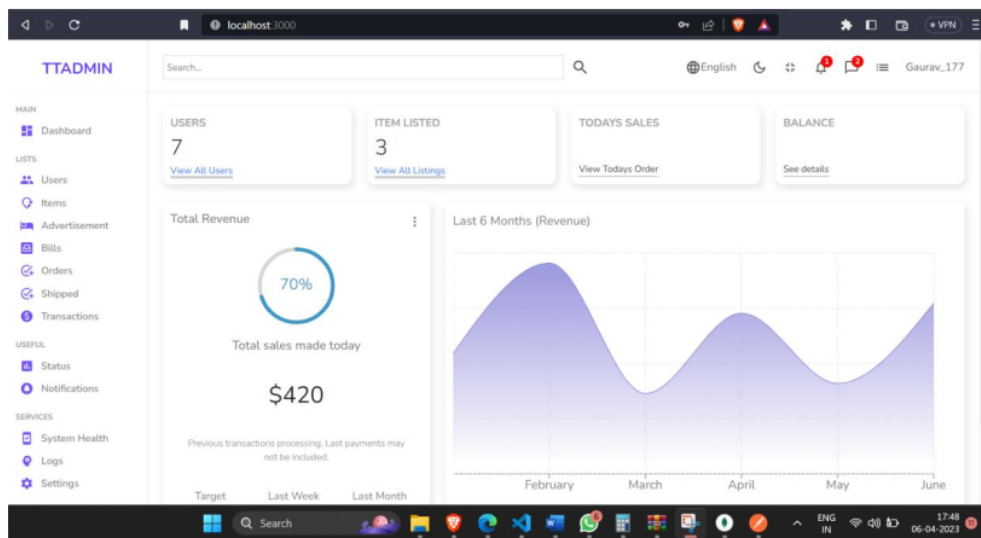
Product management: The admin panel allowed administrators to manage product listings, including adding new products, updating product information, and deleting products that were no longer available. This allowed for efficient management of the app's product catalog.

Dashboard: The admin panel featured a dashboard with key performance indicators (KPIs) such as sales, revenue, and customer retention. This provided administrators with a high-level overview of the app's performance and helped identify areas for improvement.

JWT authentication: The admin panel used JWT authentication to ensure secure access to the panel. Each user was issued a unique token upon logging in, which was required to access the panel's functionality. This ensured that only authorized users could access the panel and made it more difficult for hackers to gain access to sensitive data.

Overall, the admin panel of the Atlantic Ecommerce App was designed to provide administrators with an efficient and user-friendly way to manage product listings, orders, and customer data. The use of React JS and Golang allowed for the development of a scalable and reliable admin panel, while JWT authentication ensured secure access to the panel.





Dashboard of Admin Panel

The screenshot shows the 'Add New User' page in the TTADMIN system. It includes the same sidebar and top navigation as the dashboard. A green 'Add New' button is in the top right. Below it is a table with columns for ID, User, Email, and Action. The table lists three users: 'xyz' (email: abc@gmail.com), 'Sahil_4555' (email: 20it146@charusat.edu.in), and 'Gaurav_177' (email: 20it143@gmail.com). Each row has 'View' and 'Delete' buttons in the Action column. The bottom footer bar shows the date/time (17:49, 06-04-2023).

ID	User	Email	Action
	xyz	abc@gmail.com	View Delete
	Sahil_4555	20it146@charusat.edu.in	View Delete
	Gaurav_177	20it143@gmail.com	View Delete

Admin List of Admin Panel

Conclusion:

the Atlantic Ecommerce App is a well-designed and efficient solution for purchasing hardware and home improvement products. The use of modern technologies such as Flutter, Dart, Golang, React JS, and Firebase authentication, combined with a scalable database architecture, ensures a reliable and user-friendly experience for both users and administrators.

Future Work:

the Atlantic Ecommerce App can be further improved by adding features such as payment gateway integration, order management, and shipment details. These features will enable the app to provide a more seamless and complete shopping experience for users.

Order management will allow administrators to efficiently manage orders and track their status. This can include features such as order tracking, order cancellation, and refunds.

Shipment details will allow users to track their order shipments and receive real-time updates on their delivery status. Overall, the addition of these features will enhance the functionality of the Atlantic Ecommerce App and provide users with a more complete and satisfying shopping experience.

References:

Flutter Documentation: <https://flutter.dev/docs>

Dart Documentation: <https://dart.dev/guides>

Firebase Authentication Documentation: <https://firebase.google.com/docs/auth>

MongoDB Documentation: <https://docs.mongodb.com/>

Firestore Documentation: <https://firebase.google.com/docs/firestore>

Golang Documentation: <https://golang.org/doc/>

React JS Documentation: <https://reactjs.org/docs/getting-started.html>

JSON Web Token (JWT) Documentation: <https://jwt.io/introduction/>

Atlantic_Ecommerce_App

ORIGINALITY REPORT

4%

SIMILARITY INDEX

4%

INTERNET SOURCES

1%

PUBLICATIONS

%

STUDENT PAPERS

PRIMARY SOURCES

1

www.framingham.k12.ma.us

Internet Source

2%

2

www.researchtrend.net

Internet Source

1%

3

supercoachfinals.advertiser.com.au

Internet Source

1%

4

www.gamednastudio.com

Internet Source

1%

Exclude quotes Off

Exclude matches Off

Exclude bibliography On

Atlantic_Ecommerce_App

PAGE 1



Article Error You may need to use an article before this word.



Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.



Missing "," You may need to place a comma after this word.



Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.



Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.



Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.



Verb This verb may be incorrect. Proofread the sentence to make sure you have used the correct form of the verb.

PAGE 2

PAGE 3

PAGE 4



Article Error You may need to use an article before this word. Consider using the article **the**.

PAGE 5

PAGE 6



Missing "," You may need to place a comma after this word.