Shopify Multi-Tenant Dashboard – Detailed Explanation

Project Overview

The project is a multi-tenant shopify dashboard designed to allow multiple shopify store owners to access their store details like their customers, orders and products. Each tenant has access to their own data, they can't see or access others data.

The project has four pages which are dashboard, customers, orders, products and settings. Dashboard is to see the brief details of their store, it will show top customers, graph, top products, total revenue and growth rate. In customer section the user can see this customer's details like email, phone numbers in orders and products also same the tenant can see the details of the store and the details are fetched directly from the live shopify APIs. The tenant credentials are stored in the MongoDB atlas.

Features Implemented

1. Tenant Signup & Authentication
   - There is a safe authentication process where the tenant needs to provide their name, email, password, shopify store domain l(mystore.myshopify.com) and a shopify access token.
   - The backend stored the data in MongoDB atlas which allows the application to identify which shopify stores belongs to which tenant.

2. Multi-Tenant Data Handling
   - The backend does not store shopify products, orders, or customer data.
   - Instead, when data is requested:
     Frontend sends a request to backend endpoint (e.g., /api/products).
     Backend identifies tenant from local storage or headers.
     Backend uses shopify API with tenant's access token.
     Shopify API returns live data, which is forwarded to the frontend.
   - This approach keeps the dashboard lightweight and ensures data is always live and updated.

3. Dashboard Components

- Metrics section
  Total Top customers
  Total orders
  Total revenue
  Growth rate
- Analytics
  which shows the top customers by spending.
- Top customers
  shorted according to their revenue and their mail and number of orders with their total revenue are displayed.
- Recent orders
  The customers who recently purchased.
- Top products
  shows the more recent top products.

4. Backend Architecture
   - Node.js + Express.js used for API server.
   - MongoDB used to store tenant credentials.
   - APIs:
     - /api/customers (fetches live customer data from Shopify).
     - /api/orders (fetches live order data from Shopify).
     - /api/products (fetches live product data from shopify).
     - /api/tenants/signup (stores tenant info in MongoDB).
     - /api/tenants/login (authenticates tenant).
   - Every request includes tenant-id to ensure multi-tenancy.

5. Frontend Architecture
   - React.js + Tailwind CSS for clean and responsive UI.
   - Components:
     Header – Navigation and user info.
     Sidebar – Menu to switch between dashboard pages.
     Metric Cards – Show key metrics like total revenue, orders, and customers.
     Products Page – Displays product data in a searchable table.
     Settings Page – Allows tenants to update basic store info.

6. Data Flow

- Tenant signup – credentials stored in MongoDB.
- Tenant login – with same credentials which are used during signup.
- Frontend requests product/order/customer data – backend fetching live from shopify.
- Data returns to frontend – displays in dashboard metrics and tables.

7. Security & multi-tenancy
   - Tenant credentials stored securely in MongoDB.
   - All API requests include tenant ID in headers.
   - Dashboard ensures each tenant only sees their own data.

How Data is Fetched

1. Tenant logs in → access token and shop domain are fetched from MongoDB/local storage.
2. Frontend calls backend APIs (/customers, /orders, /products).
3. Backend uses shopify API and tenant credentials to fetch live data.
4. Dashboard displays the data directly from shopify, no product/order/customer data is stored in your database.

Deployment

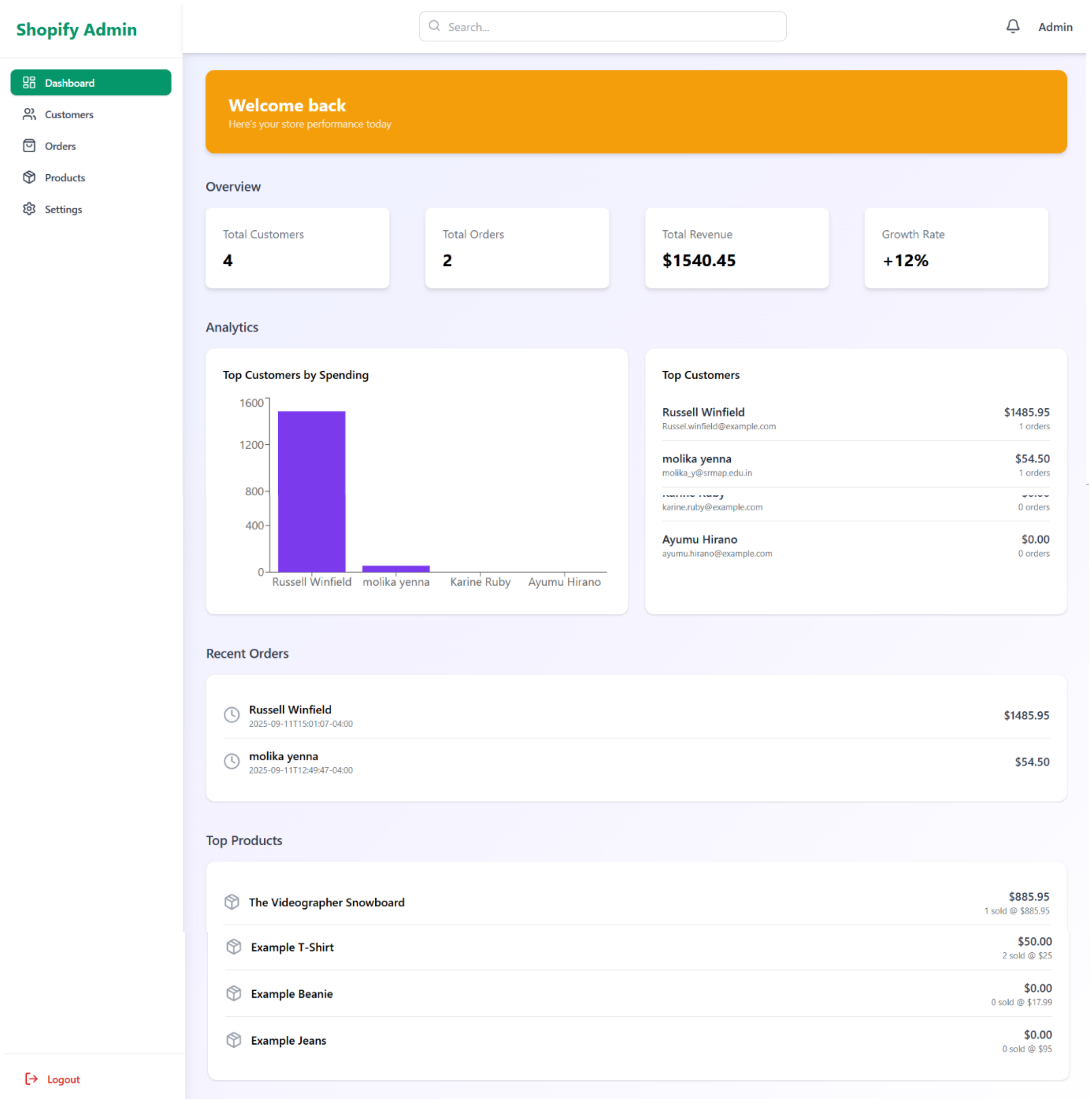
- Backend Deployment
  - Used Node.js + Express for the API server.
  - Hosted the backend on Render.
  - Connected the backend to MongoDB Atlas for storing tenant credentials.
- Frontend Deployment
  - Built the frontend with React.js + Tailwind CSS.
  - Deployed the frontend on Render.
  - Configured it to call backend APIs for fetching live data from Shopify.

Possible Improvements

- Add charts for better visual insights (Chart.js, Recharts).
- Store data like customer, orders, products in the MongoDB so that it won’t take much time to fetch

Screenshots:

Dashboard



Welcome back

Here's your store performance today

Overview

Total Customers	Total Orders	Total Revenue	Growth Rate
4	2	$1540.45	+12%

Analytics

Top Customers by Spending

Top Customers

Russell Winfield Russel.winfield@example.com	$1485.95 1 orders
molika yenna molika_y@srmap.edu.in	$54.50 1 orders
Karine Ruby karine.ruby@example.com	$0.00 0 orders
Ayumu Hirano ayumu.hirano@example.com	$0.00 0 orders

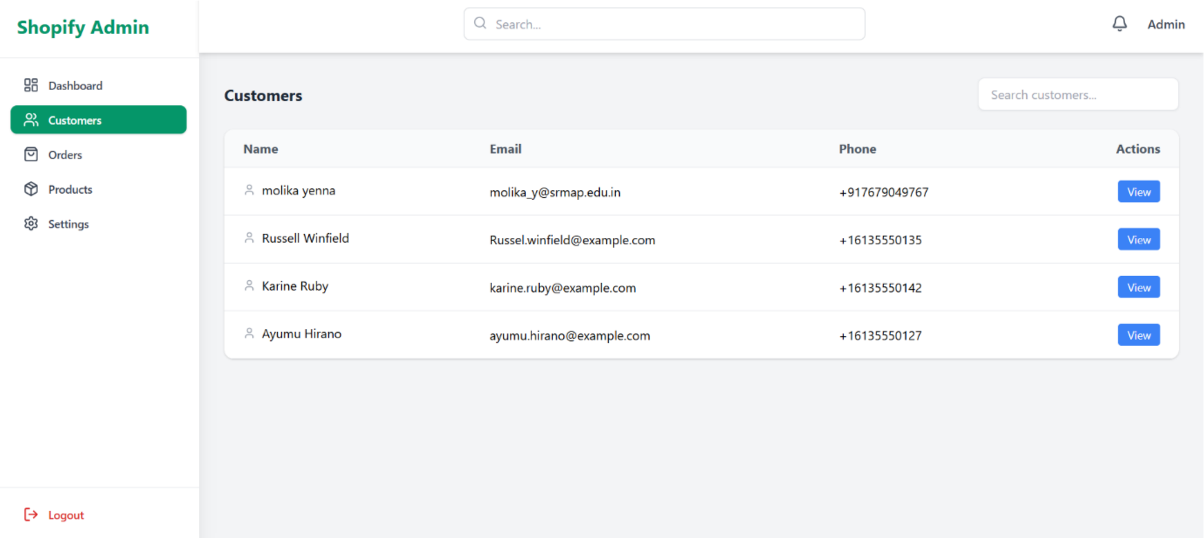
Recent Orders

Russell Winfield 2025-09-11T15:01:07-04:00	$1485.95
molika yenna 2025-09-11T12:49:47-04:00	$54.50

Top Products

The Videographer Snowboard	$885.95 1 sold @ $885.95
Example T-Shirt	$50.00 2 sold @ $25
Example Beanie	$0.00 0 sold @ $17.99
Example Jeans	$0.00 0 sold @ $95

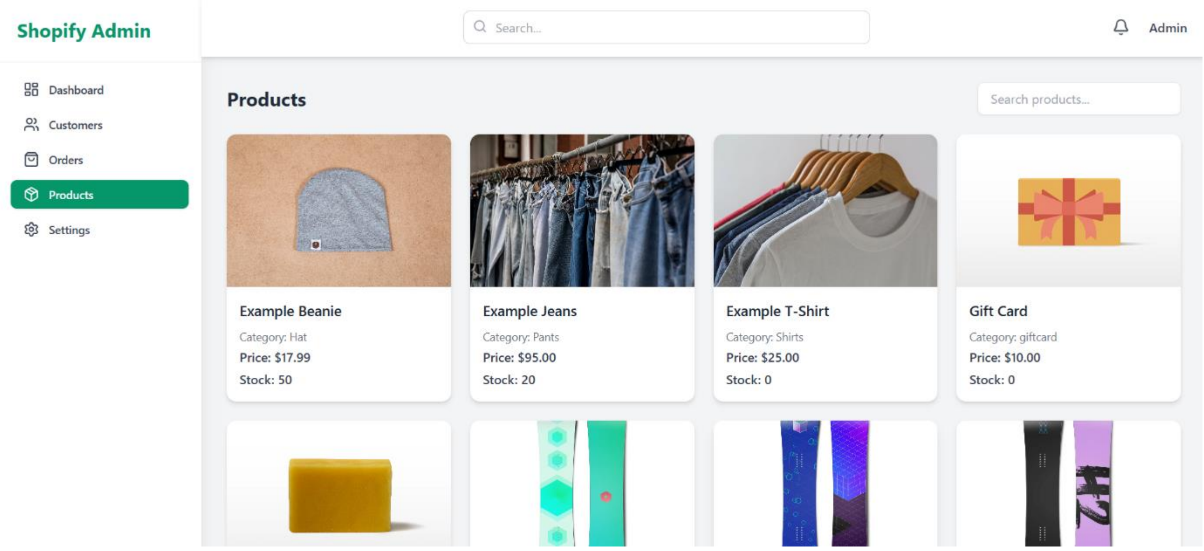
Customers



Customers

Name	Email	Phone	Actions
molika yenna	molika_y@srmap.edu.in	+917679049767	View
Russell Winfield	Russel.winfield@example.com	+16135550135	View
Karine Ruby	karine.ruby@example.com	+16135550142	View
Ayumu Hirano	ayumu.hirano@example.com	+16135550127	View

Products



Products

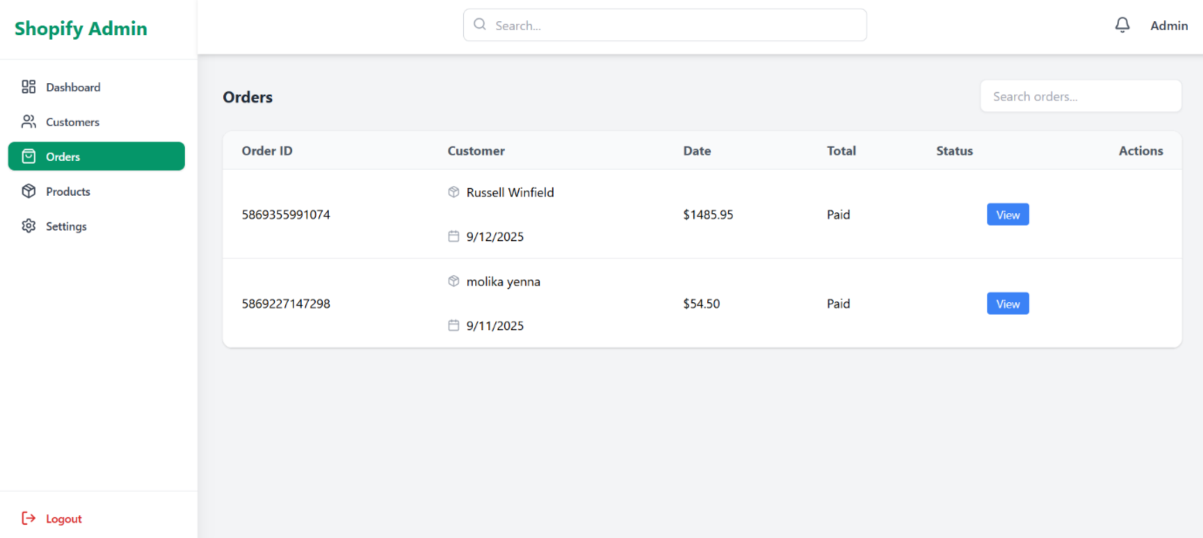
Example Beanie
Category: Hat
Price: $17.99
Stock: 50

Example Jeans
Category: Pants
Price: $95.00
Stock: 20

Example T-Shirt
Category: Shirts
Price: $25.00
Stock: 0

Gift Card
Category: giftcard
Price: $10.00
Stock: 0

Orders

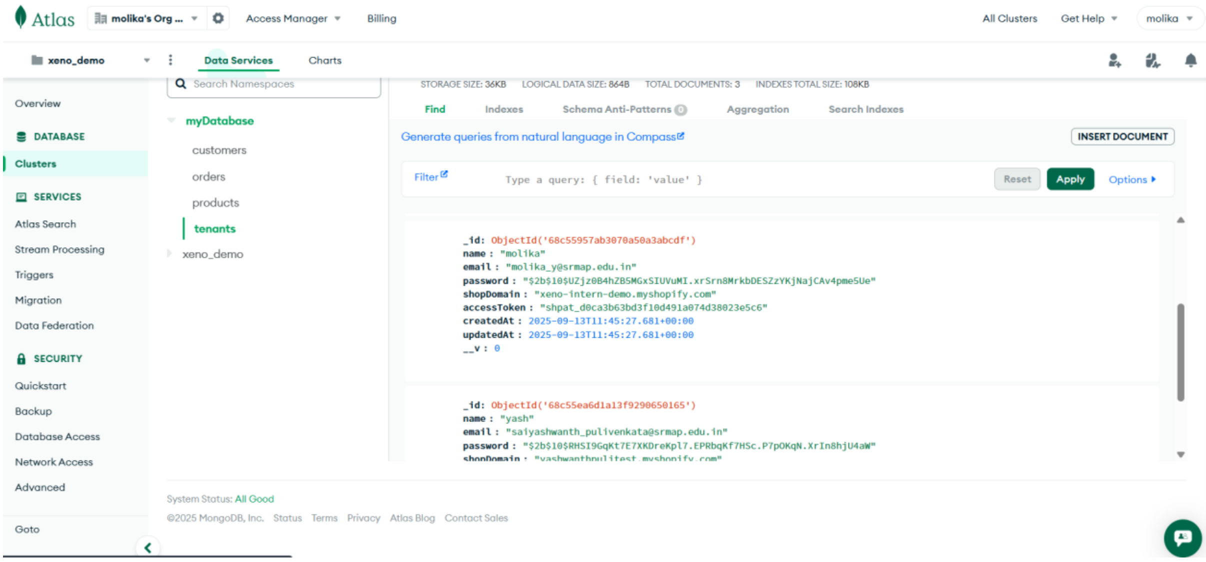


Orders

Search orders...

Order ID	Customer	Date	Total	Status	Actions
5869355991074	Russell Winfield 9/12/2025	$1485.95	Paid	View	
5869227147298	molika yenna 9/11/2025	$54.50	Paid	View	

MongoDB Atlas



STORAGE SIZE: 36KB LOGICAL DATA SIZE: 864B TOTAL DOCUMENTS: 3 INDEXES TOTAL SIZE: 108KB

```
_id: ObjectId('68c55957ab3070a50a3abcdf')
name : "molika"
email : "molika_y@srmap.edu.in"
password : "$2b$10$UZjz0B4hZB5MGxSIUVuMI.xrSrn8MrkbDESZzYKjNajCAv4pme5Ue"
shopDomain : "xeno-intern-demo.myshopify.com"
accessToken : "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"
createdAt : 2025-09-13T11:45:27.681+00:00
updatedAt : 2025-09-13T11:45:27.681+00:00
__v : 0

_id: ObjectId('68c55ea6d1a13f9290650165')
name : "yash"
email : "saiyashwanth_pulivenkata@srmap.edu.in"
password : "$2b$10$RHSI9GqKt7E7XKDreKpl7.EPRbqKf7HSc.P7pOKqN.XrIn8hjU4aW"
shopDomain : "yashwanthpulitest.myshopify.com"
```

Live demo:

You can try the project here: [Shopify Multi-Tenant Dashboard]

https://shopify-admin-frontend-1.onrender.com

NOTE: The credentials to login the application for testing purpose

Tenant 1

Email: molika_y@srmap.edu.in

Password: molika

Tenant 2
Email: saiyashwanth_pulivenkata@srmap.edu.in

Password: yash

Test accounts are included above for verification.

Contact: molika_y@srmap.edu.in

Thanks for reviewing.