Slide 1: Introduction

Hi everyone, this is my project VinylStore. I worked on it solo, so I'll start with a brief overview of the app, share a few key pieces of code, share some challenges i faced and then i'll do a live demo at the end.

Slide 2: Overview

VinylStore is an online platform I made for a fictional small business, a music store where users can browse, search, and purchase vinyl records. The project includes a frontend, backend, and an admin panel for store management.

The tech stack i used is:

- Frontend: React, Tailwind CSS
- Backend: Node.js, Express, MongoDB
- Authentication: JSON Web Tokens (JWT)
- Deployment: Vercel

Slide 3: Code Explanation - Handling Orders

One of the most important parts of an eCommerce app is placing an order. This involves sending a network request to the backend and saving the order in the database.

Slide 4: Code Explanation - Handling Orders (Step 1)

Here’s an example from one of my backend controllers. The code is a bit long so i split each section into its own slide.

The first step: Receives order data from the frontend (userId, cartItems, etc.).

Slide 5: Code Explanation - Handling Orders (Step 2)

The second: Creates a new order and saves it to MongoDB using new orderModel().

Slide 6: Code Explanation - Handling Orders (Step 3)

The third: Send a response back to the frontend confirming the order.

And this code is.from the orderController.js file. Another key piece of code is the card functionality in shopContext.

Slide 7: Code Explanation - Card Functionality in shopContext

In the frontend section, in my ShopContext.jsx file, I have a function, addToCart.

- When a user clicks “Add to Cart,” this function is called.
- It checks if the item is already in the cart.
- If it exists, it increments the quantity.
- If it doesn’t exist, it adds the product to the cart with a quantity of 1.
- Finally, it updates the state with the new cart data.

This way its a smooth shopping experience, allowing users to add multiple products without duplicating them in the cart.

Slide 8: Challenges

Now here are two challenges I faced while working on this project.

Slide 9: Challenge 1 - bcrypt deployment issues

When I first deployed my backend on vercel, I got this error message on the deployed site. So I followed the instructions to check the logs and I saw this…

Slide 10: Challenge 1 - bcrypt deployment issues

I did some research to understand what was wrong and it turns out the authentication wasn't working because of an error. But I still didn't completely understand how to fix it, So I went to the terminal to get more information..

Slide 11: Challenge 1 - bcrypt deployment issues

…and it was very helpful. This was caused by bcrypt being built on my local system but not compatible with the deployment server.

So I uninstalled bcrypt (the one incompatible with the server) and installed bcryptjs instead, since it's a pure JavaScript alternative that works on all servers.

Slide 12: Challenge 1 - bcrypt deployment issues

Then I updated all the imports wherever bcrypt was imported. I didn't have the comb through all my code just the imports, which was a relief. Then I redeployed and it worked.

Slide 13: Challenge 2 - Cart Not Updating Properly

Another challenge I had was when a user added or removed items from the cart, the UI didn't always update. After a lot of frustration I finally figured out that this happened because in my code, on line15, I had written the full line and forgotten the +! At the end. After I fixed that issue, it worked perfectly.

Slide 14: DEMO

Now for the demo, ill first show the user perspectie then ill show the admin and then if I have time a bit of the dev perspective with the database.

Frontend Demo (User Perspective)

1. Navigate to Home Page → Show featured vinyls.
2. Go to Collection Page → Filter/Search for a vinyl.
3. Click a Product Page → Explain product details.
4. Add to Cart → Show cart updating properly.
5. Create an account → Create account and login

Email: user.guest@vinylstore.com.au

Password: qwerty123

6. Place an Order → Enter address & confirm order.

Test Card: 4000000360000006

Backend Demo (Admin/Developer Perspective)

1. Demo Admin→ Demo Admin.

Email: admin@vinylstore.com.au

Password: qwerty123

2. Open MongoDB → Show that the order is saved in the database.
3. Verify Order Processing → Change order status in MongoDB/Admin panel.

Slide 17: Conclusion

And that the app and my time is running out but thank you for listening!