# Project Overview:

This e-commerce application, although not fully completed, demonstrates key functionalities with a secure and modular structure. Implemented till SignIn and Signup.

## Implemented Points:

1. Database Utilization:

Utilized MongoDB as the database for efficient data storage and retrieval.

2. Backend Development:

Developed the backend using Java and Spring Boot, emphasizing annotation-based configuration for simplicity and clarity.

3. Frontend Development:

Built the frontend using React, ensuring a responsive and user-friendly interface for enhanced user experience.

4. Authentication and Session Tracking:

• Implemented JWT-based session tracking, enhancing security and user authentication.

• Achieved role-based authentication through HttpOnly cookies, ensuring access control.

5. User Verification:

Executed email and phone number verification during the signup process through Java code, enhancing account security.

6. Efficient API Management:

Managed API calls efficiently to ensure smooth data flow between frontend and backend components.

7. Exception Handling:

Incorporated robust exception handling using try-catch blocks, improving the application's resilience to errors.

### Security Measures:

#### 1. *JWT Token and UserType Authentication*:

• Implemented JWT token for secure communication and session management.

• Achieved UserType-based session authentication, enhancing access control.

#### 2. Credentials Security:

• Stored database and all credentials locally, utilizing system variables within the application to minimize security risks and potential breaches.

This project showcases a robust foundation for an e-commerce application, integrating key security measures, modular structure, and user verification processes. Consider further enhancements based on the specific requirements of your application.

### Project Structure:

trackerWeb

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├── config

│ ├── jwtfilter

│ │ ├── FirstJwtFilter.java

│ │ └── SecondJwtFilter.java

│ ├── PrimaryMongoConfig.java

│ └── SecurityConfig.java

│

├── controller

│ ├── ProductRetailerController.java

│ ├── SignInController.java

│ └── SignUpController.java

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├── model

│ ├── Customer.java

│ ├── Product.java

│ ├── RegisterJwt.java

│ ├── Retailer.java

│ ├── User.java

│ └── VerificationCode.java

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├── repository

│ ├── CustomerDb.java

│ ├── RegisterJwtDb.java

│ ├── RetailerDb.java

│ └── VerificationCodeDb.java

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├── response

│ ├── MainResponse.java

│ ├── SignInResponse.java

│ └── SignUpResponse.java

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└── service

├── EmailValidationService.java

├── JwtUtils.java

├── ProductRetailerService.java

├── SignInService.java

├── SignUpService.java

└── TrackerWebApplication.java