

° MERNABOOK



CS 4398.252 - Final Presentation

by Michelle Nguyen



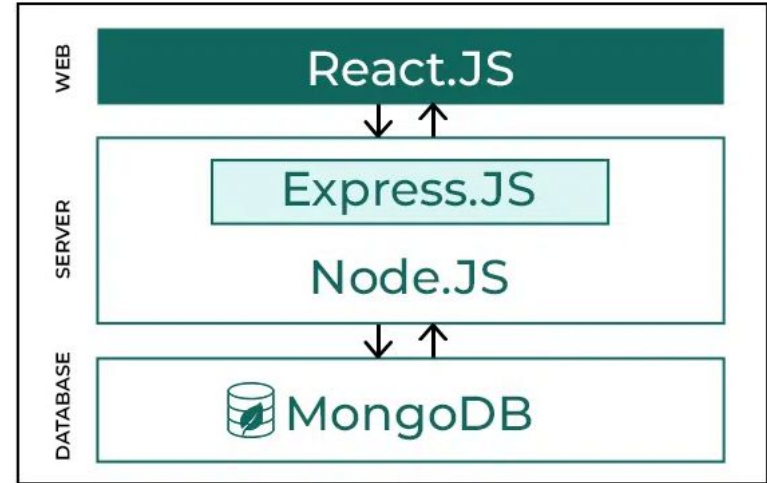
System Purpose

“**MERNABook**” is an ecommerce web application developed using MERN stack (**MongoDB**, **Express.js**, **React.js**, **Node.js**).

The application features functionalities for two different user roles:

- Clients - can browse and purchase items seamlessly.
- Store owner - can manage store, without needing any coding knowledge.

With this project, we aim to provide a reliable and user-friendly ecommerce platform with hassle-free transactions for both clients and store owner.





Functional Expectations

Client Side:

- **Browsing Inventory:** Search, filter, sort and browse items.
- **Shopping Cart:** Add items, view cart, and proceed to checkout.
- **Secure Payment:** Use payment gateway for secure transactions.
- **User Authentication:** Register, sign in and change password.
- **Client Dashboard:** Manage order and profile information.

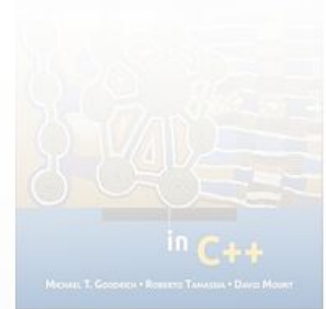
Education

Geology

English

Psychology

Sociology





Functional Expectations

Store Owner Side:



- **Admin Dashboard:** Manage inventory, order, sales reports.
- **Inventory Management:** Add, update, and remove items.
- **Order Management:** View and manage incoming orders, mark orders as fulfilled.
- **Sales Report:** Log weekly sales data and generate reports for trends and summaries.

Dashboard

Product

Statistic

Logout


Image	ISBN	Title	Price	Quantity	Action
	978-0133591620	Modern Operating Systems	\$65.99	22	View
	978-0132350884	Clean Code: A Handbook of Agile Software Craftsman	\$39.99	6	View

Version Control - Gitkraken

The screenshot displays the Gitkraken application interface, which is used for managing version control. The interface is divided into several sections:

- Top Bar:** Contains menu items (File, Edit, View, Help) and a toolbar with icons for workspace, repository, branch, and other Git operations. The current workspace is named "mernabook" and the branch is "main".
- Left Panel:** Shows a list of branches and pull requests. The "origin" branch is selected, and a list of pull requests is visible, including "checkout-login-req...", "deploy-apr13", "deploy-apr19", "deploy-v1", "fix-login-interface", "implement-admin...", "implement-checkout", "implement-email-r...", "implement-functio...", "implement-home-p...", "implement-sales-d...", "implement-sales-log", "implement-search", "implement-shoppi...", "implement-user-da...", "implement-databas...", "intergration-testing", and "main".
- Central Panel:** Displays a commit history graph. The graph shows a sequence of commits, with the most recent commit being "Merged in implement-user-dashboard (pull request #4)". The commit message for this merge is "Implement user dashboard".
- Right Panel:** Shows the details of the selected commit (d872df). It includes the commit message "Merged in implement-user-dashboard (pull request #4)", the author "Michelle Nguyen", the date "03/24/2024", and the time "10:59 PM". Below this, a list of files is shown, including "frontend/src/App.js", "frontend/src/app/user/route.js", "frontend/src/components/d.../Dashboard.js", "frontend/src/components/gen.../header.css", "frontend/src/components/gener.../header.js", "frontend/src/components/gen.../navbar.css", "frontend/src/components/gener.../navbar.js", "frontend/src/components/user.../Account.js", and "frontend/src/components/user.../Address.js".

Version Control - BitBucket

 MernABook

<> Source

🔗 Commits

🌿 Branches

🔗 Pull requests

🔄 Pipelines


☁ Deployments

💎 Jira issues

🛡 Security

📁 Downloads

⚙ Repository settings

 rnb90 / CS4398 / MernABook

















Branches

Create branch ...

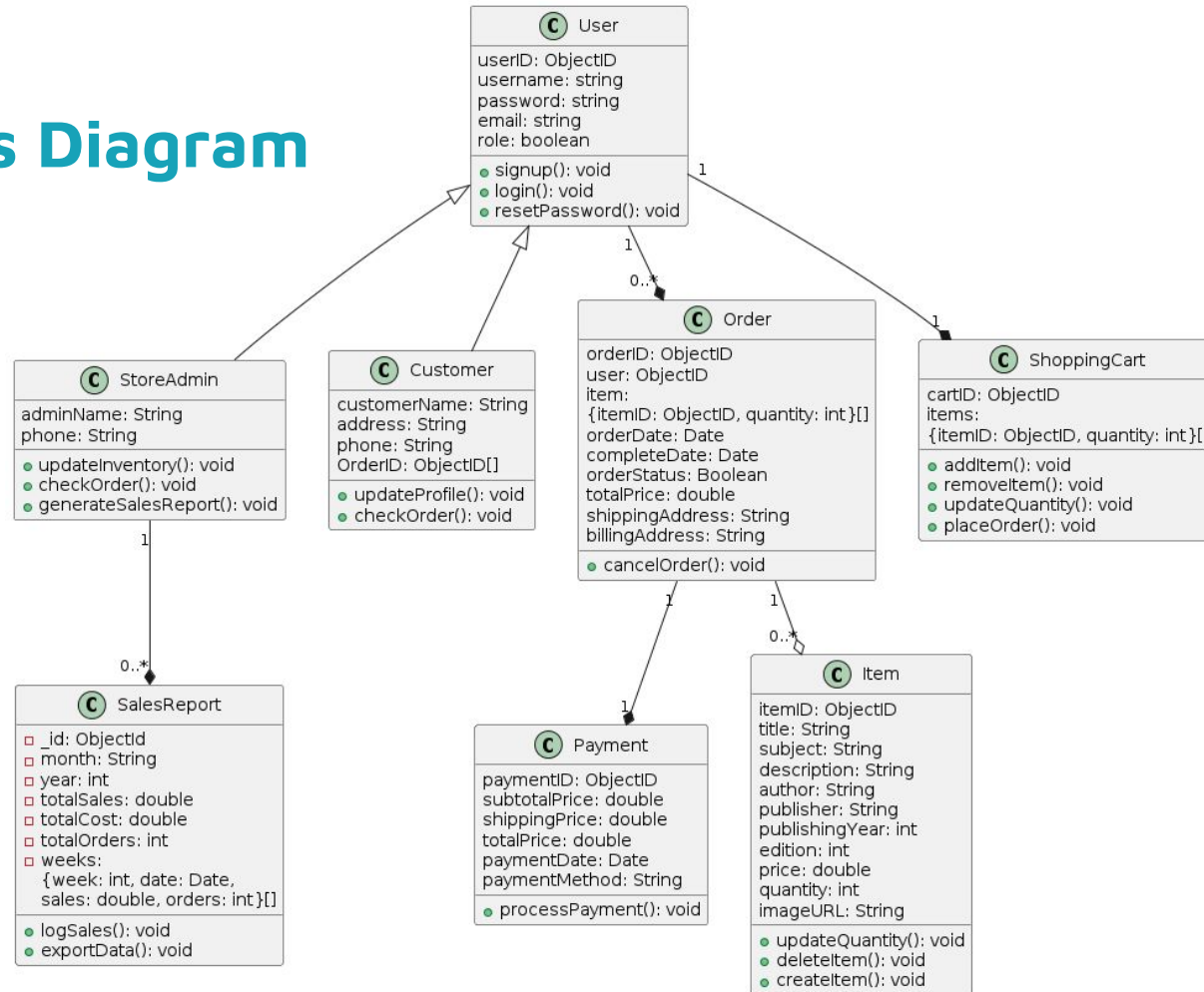
Search branches 🔍

Merged branch...

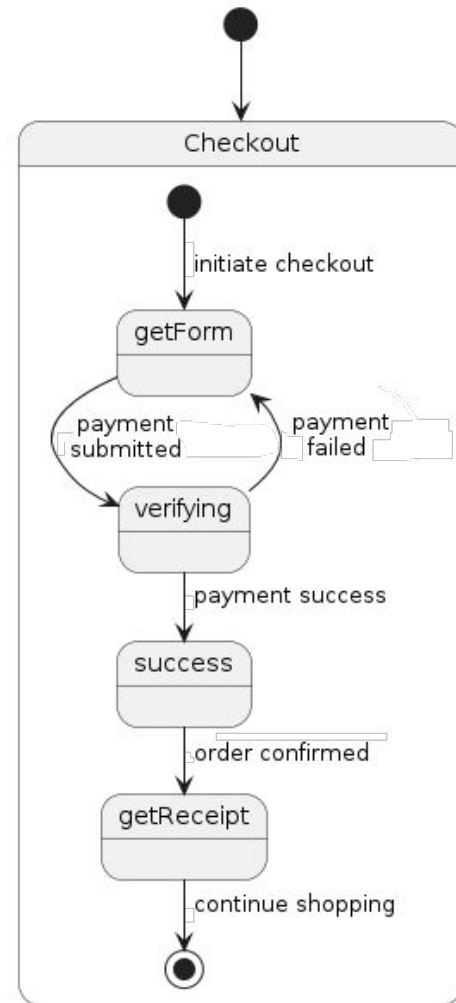
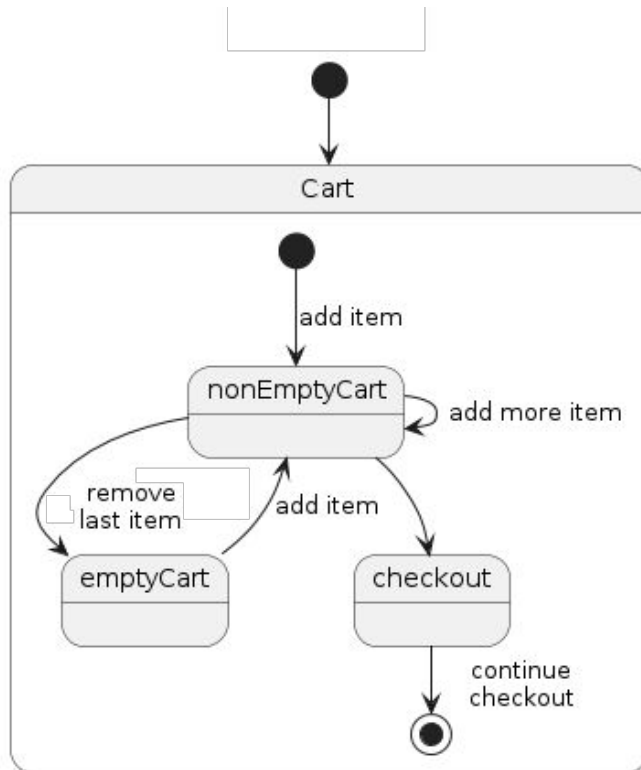
Branch type ▾

Branch ▾	Behind ▾	Ahead ▾	Updated ▾	Pull request	Builds	Actions
main MAIN DEVELOPMENT			 12 hours ago			...
minor-fixes		2 0	 15 hours ago			...
implement-email-receipt	18 0		 4 days ago			...
implement-sales-log	36 0		 2024-04-13			...
implement-sales-dashboard	58 0		 2024-04-10			...
implement-search	67 0		 2024-04-10			...
implement-functions-to-manage-order	85 0		 2024-04-07			...
checkout-login-requirement	113 0		 2024-04-06			...
implement-admin-dashboard	126 0		 2024-03-28			...
implement-home-page	150 0		 2024-03-26			...

Class Diagram

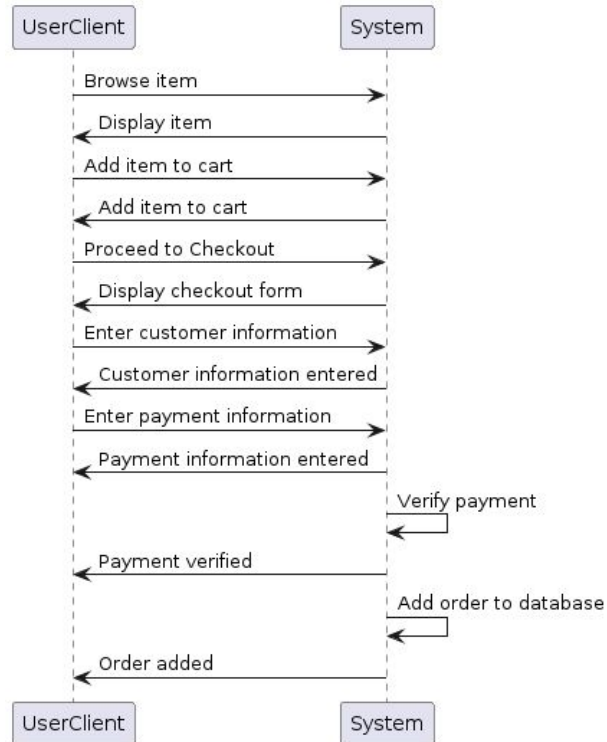


State Chart

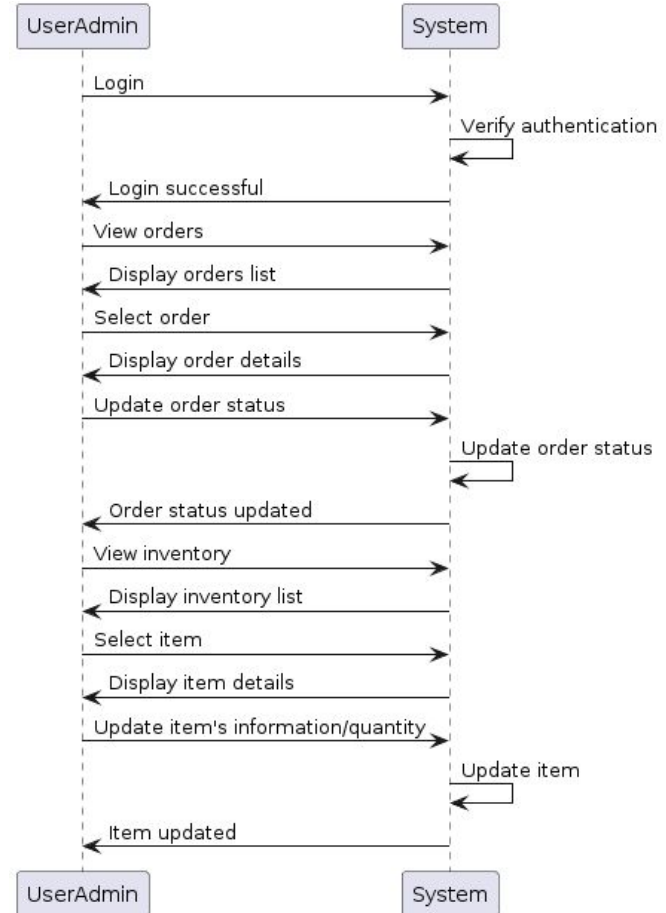


Sequence Diagram

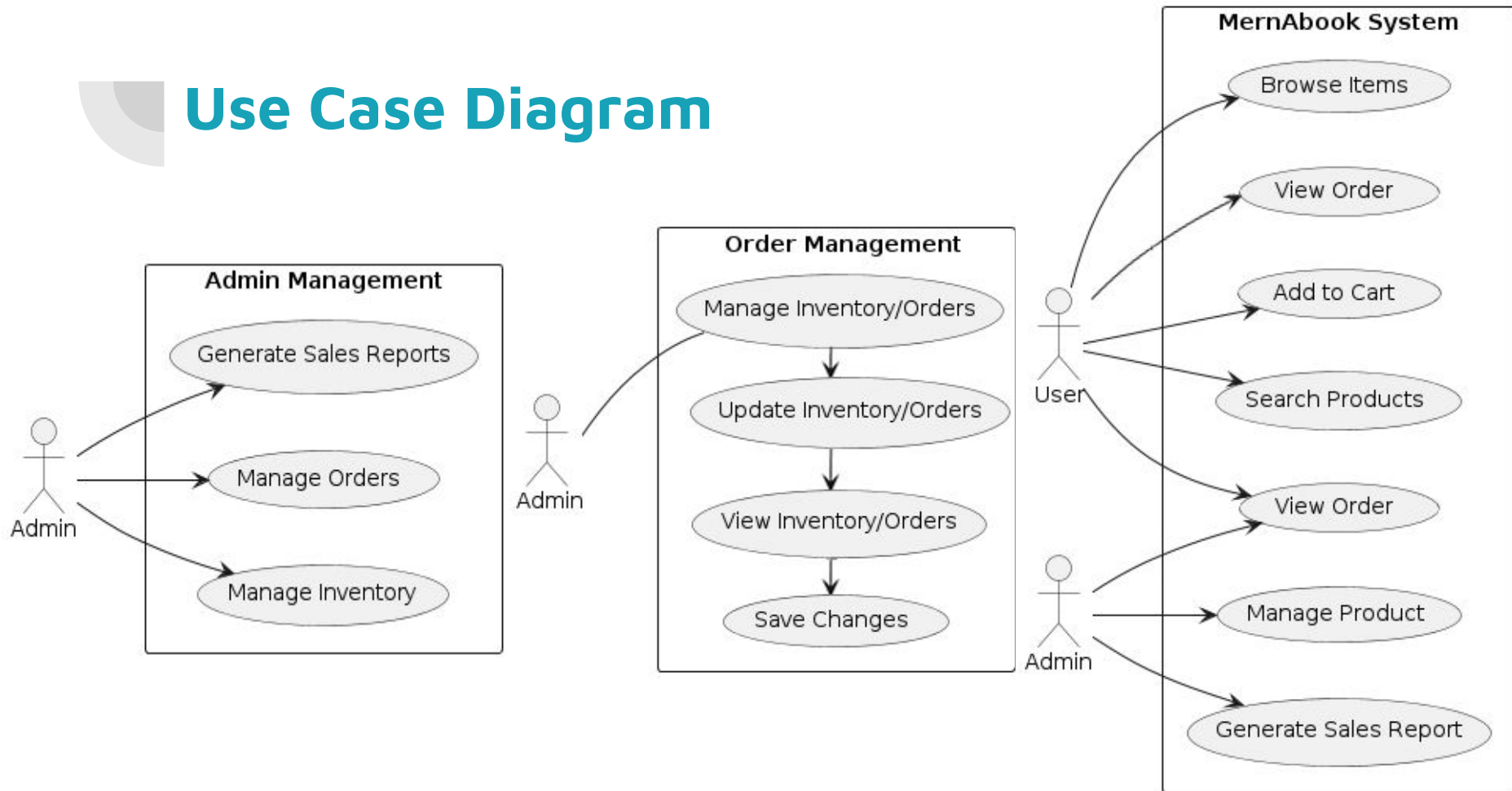
Customer Browse and Checkout



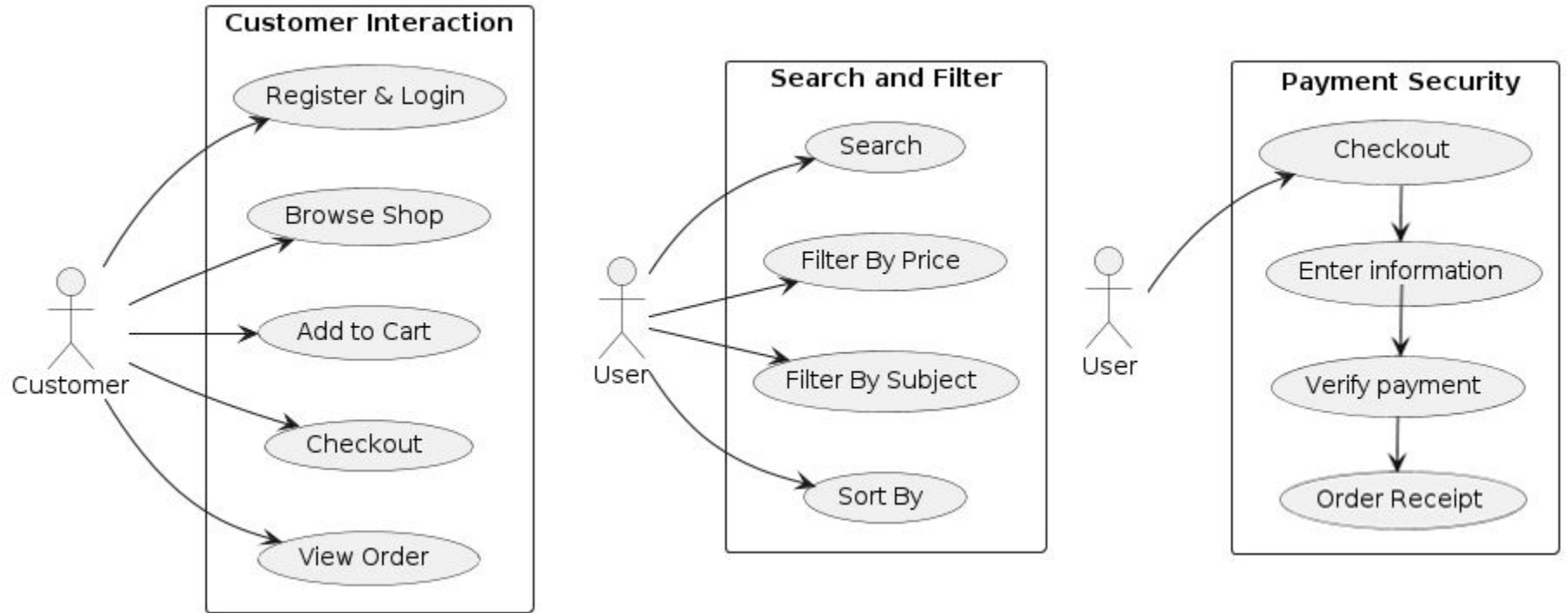
Admin Order and Inventory Management



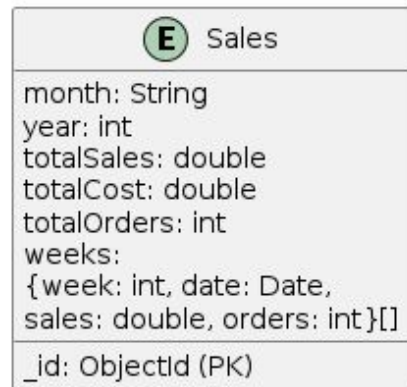
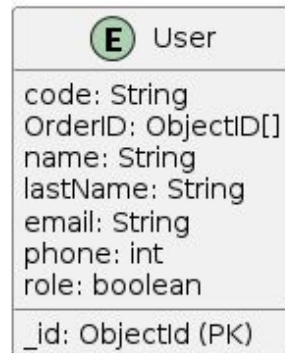
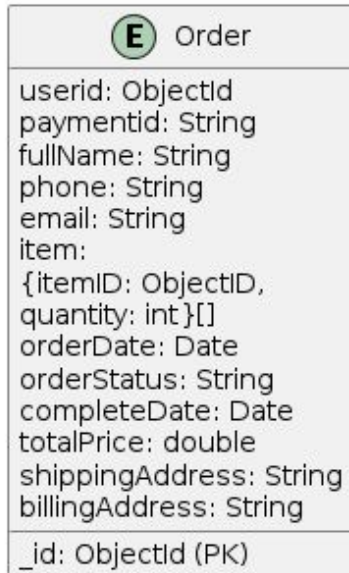
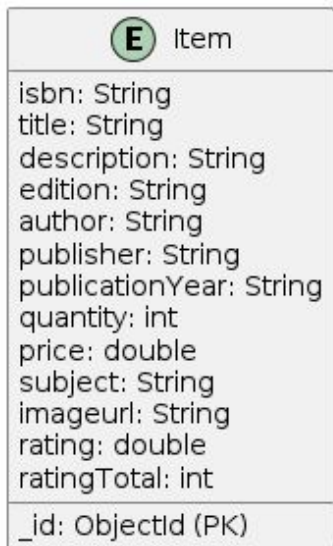
Use Case Diagram



Use Case Diagram



Entity-Relation Diagram





Acceptance Test Case - Register and Login

- **Test Case: User Registration**
 - **Steps:** User navigates to the Register page, fills in the required details, and submits the form.
 - **Expected Outcome:** User account is created, and they are redirected to the login page.
- **Test Case: User Login**
 - **Steps:** User navigates to the Login page, enters their credentials, and submits the form.
 - **Expected Outcome:** User is logged in and redirected to the home page.
- **Recording Demo:** <https://www.youtube.com/watch?v=q63PBsT6ROQ>



Acceptance Test Case - Change Password

- **Test Case: User Registration**
 - **Steps:** User navigates to the Login page, selects the option Forgot Password, checks email for a password reset link, submits the form for new password.
 - **Expected Outcome:** User's password is successfully changed, and they remain logged in to their account.
- **Recording Demo:** <https://youtu.be/q63PBsT6ROQ?t=33>



Acceptance Test Case - Purchase Items

- **Test Case: Adding Items to Cart**
 - **Steps:** User browses the product catalog in Shop, selects items to purchase, and adds them to the cart.
 - **Expected Outcome:** Items are successfully added to the cart.
- **Test Case: Checkout Process**
 - **Steps:** User navigates to Cart, reviews the items, and proceeds to Checkout.
 - **Expected Outcome:** User is prompted to enter shipping and payment information, completes the checkout process, and receives an order confirmation.
- **Recording Demo:** <https://youtu.be/q63PBsT6ROQ?t=134>



Acceptance Test Case - Manage Inventory & Orders

- **Test Case: Adding New Products**
 - **Steps:** Admin navigates to the Inventory section of Admin dashboard, selects the option to add a new product, fills in the product details, and saves the changes.
 - **Expected Outcome:** New product is added to the inventory.
- **Test Case: Viewing and Managing Orders**
 - **Steps:** Admin navigates to the Orders section of Admin dashboard, views a list of orders, selects an order to manage, and updates the order status.
 - **Expected Outcome:** Order status is updated, and changes are reflected in the system.
- **Recording Demo:** <https://youtu.be/q63PBsT6ROQ?t=304>



Acceptance Test Case - Log Sales Report

- **Test Case: Log Sales Report**
 - **Steps:** Admin navigates to the Statistics of the admin dashboard, selects the option to generate a sales report for a specific time period and submit the request.
 - **Expected Outcome:** A sales report is generated, displaying relevant data such as total sales, top-selling products, etc.
- **Recording Demo:** <https://youtu.be/q63PBsT6ROQ?t=479>

The background of the slide is a stack of books, with a teal-colored overlay. The books are slightly out of focus, but some titles are visible, such as 'STATISTICAL MODELS', 'LINDLEY', and 'Statistical Models and Methods for Life'.

◦ Live Demo

<https://mernabook.vercel.app/>