



Task 1

**Build an e commerce website
using Waterfall Model**

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E commerce website



Waterfall model



Requirements



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Design



E-COMMERCE WEBSITE

- An e-commerce website is an online platform that allows businesses and consumers to buy and sell goods and services over the Internet. These websites facilitate various transactions, ranging from physical products to digital goods and services.



WATERFALL MODEL

- The Waterfall Model is a linear and sequential approach to software development that consists of distinct phases.

1.REQUIREMENTS



**Functional
Requirements:**



**Non-Functional
Requirements:**



FUNCTIONAL REQUIREMENTS:

- **User Registration & Account Management:** Users can sign up, log in, and manage their account details.
- **Product Catalog Management:** Admins can add, edit, or delete products from the store.
- **Shopping Cart:** Users can add items to a cart and review them before buying.
- **Payment Processing:** Secure integration with payment methods like PayPal and Stripe for transactions.
- **Order Management:** Users can track their orders, and process returns if needed.
- **User Reviews & Ratings:** Customers can leave feedback on products they've bought.
- **Search Functionality:** Users can search for products quickly and easily.
- **Mobile Compatibility:** The website works smoothly on mobile devices.
- **Security Features:** Protect user data with SSL encryption and other security measures.



NON-FUNCTIONAL REQUIREMENTS:

- **Performance:** The site should load fast, ideally within 3 seconds.
- **Usability:** It should be easy to use and accessible to everyone.
- **Scalability:** The site should handle more users during busy times without slowing down.
- **Security:** Protect the site from hacking, fraud, and data leaks.

2. ANALYSIS



FEASIBILITY STUDY:



**REQUIREMENT
ANALYSIS:**



**SYSTEM
REQUIREMENTS:**

FEASIBILITY STUDY:

1

Technical Feasibility:

Check if the right technologies and platforms are available.

2

Economic Feasibility:

Estimate the budget and costs.

3

Operational Feasibility:

Ensure the staff has the skills and training needed.

REQUIREMENT ANALYSIS:

1

User Roles: Identify who will use the site (customers, admin, vendors).

2

Use Cases:
Determine how users will interact with the site (e.g., shopping, managing products).

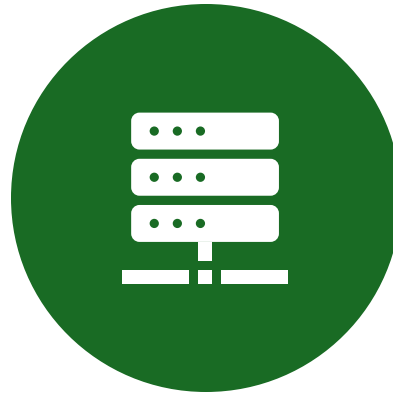
3

User Stories: Create scenarios like, "As a customer, I want to filter products by category."

SYSTEM REQUIREMENTS:



HARDWARE & SOFTWARE: DEFINE WHAT TECHNOLOGY IS NEEDED.



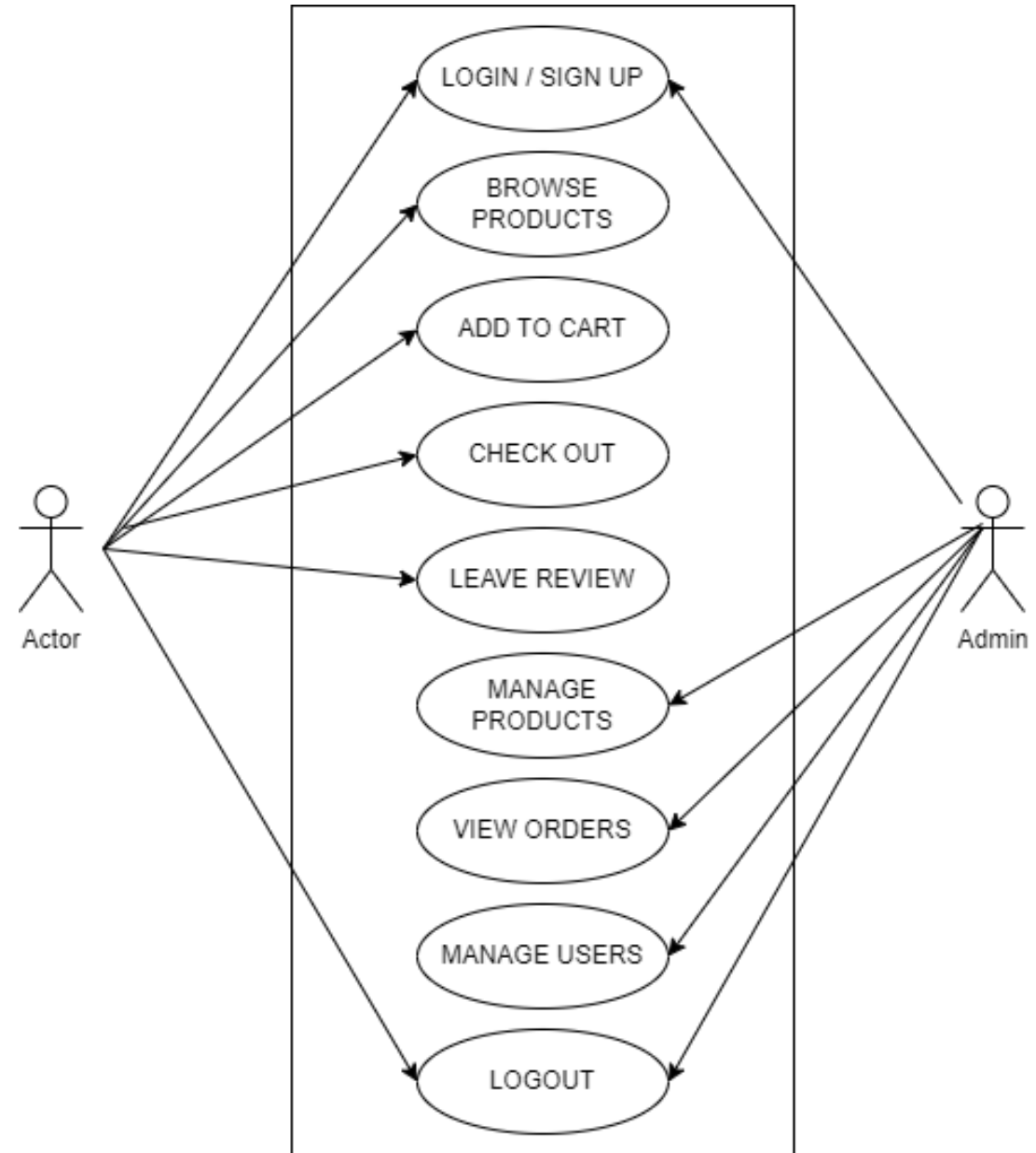
HOSTING & DOMAIN: SET UP HOSTING AND DOMAIN FOR THE SITE.



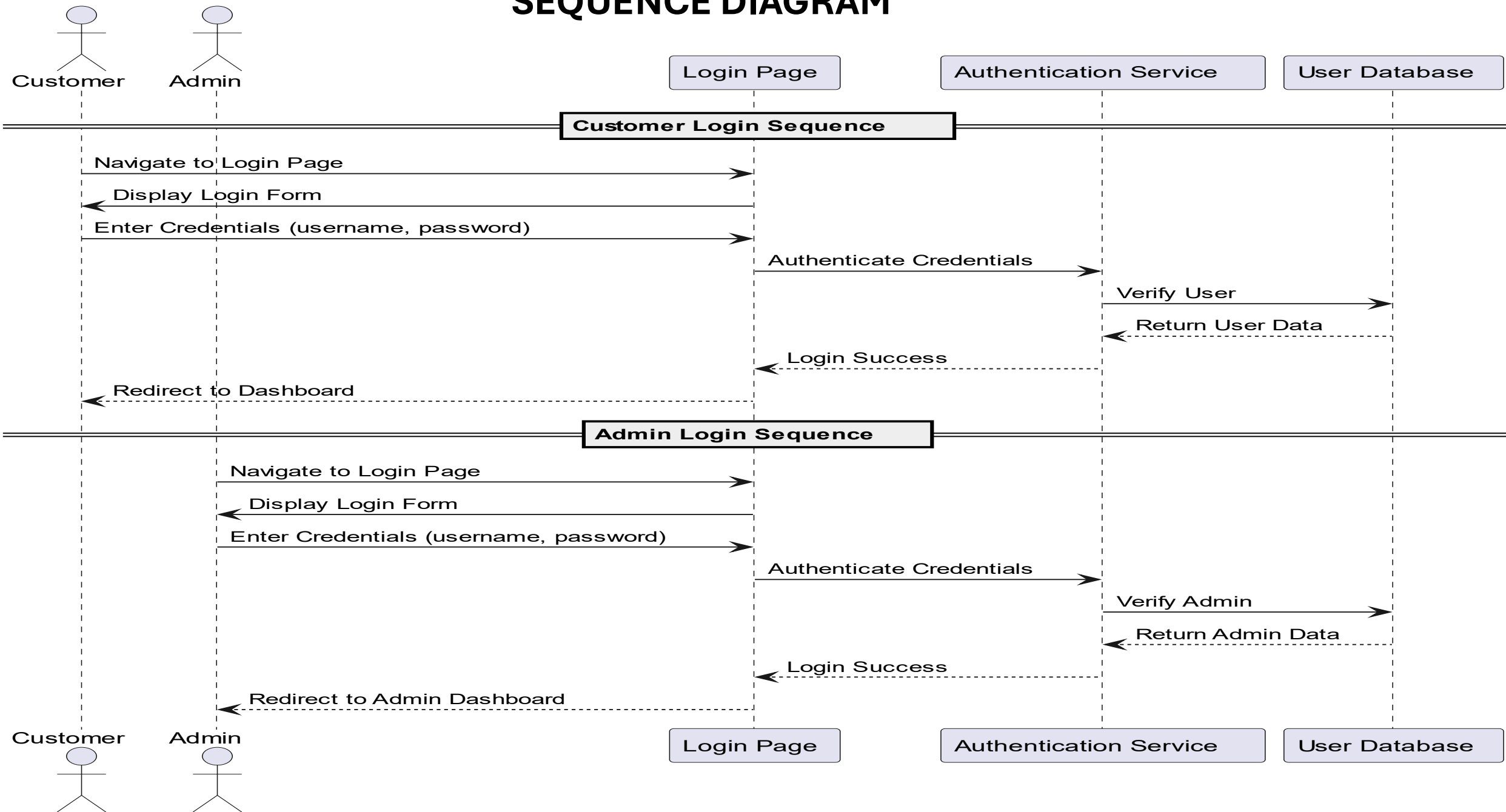
THIRD-PARTY SERVICES: CHOOSE PAYMENT GATEWAYS AND SHIPPING SERVICES TO INTEGRATE.

3.DESIGN

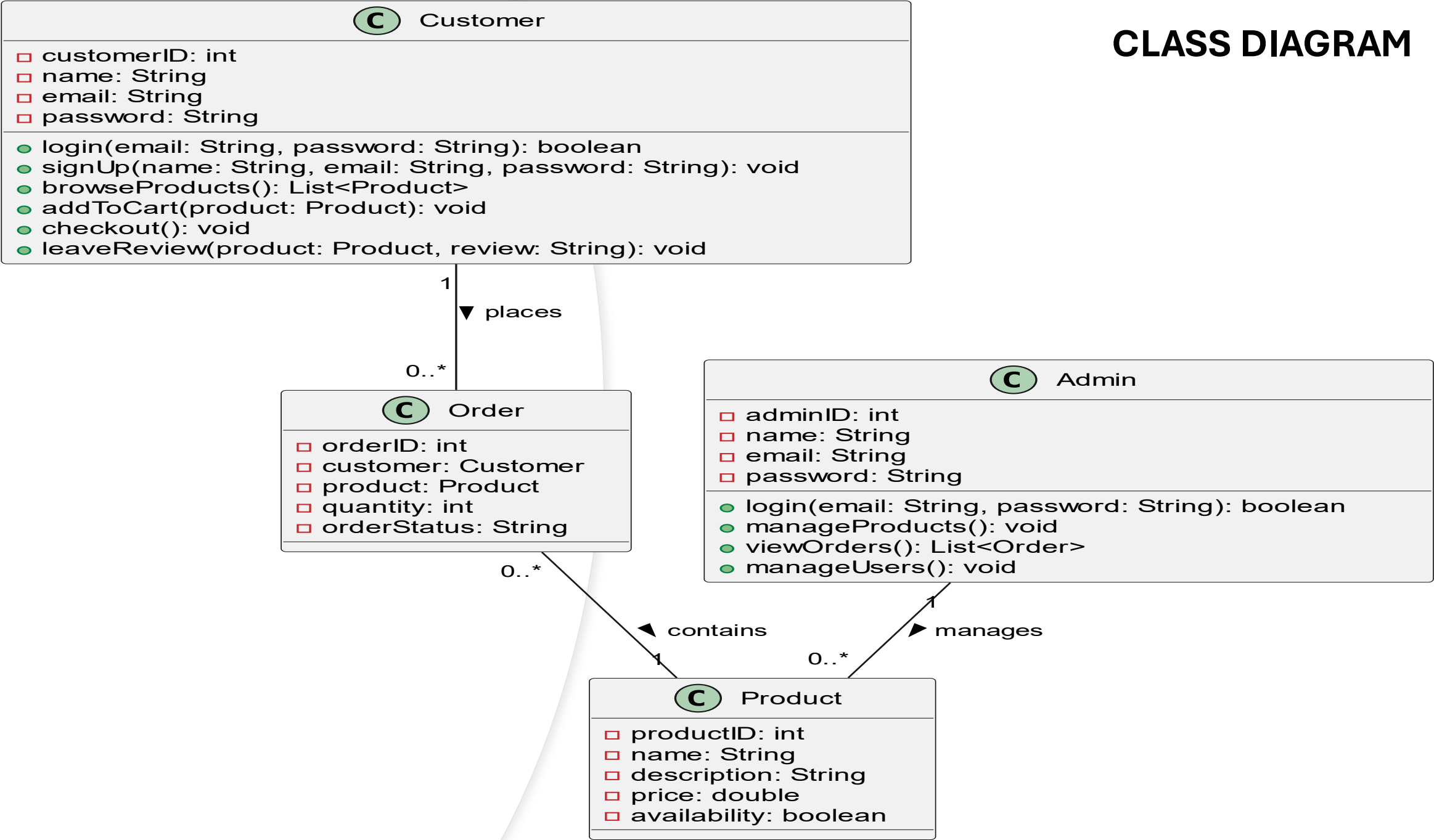
- USE CASE DIAGRAM



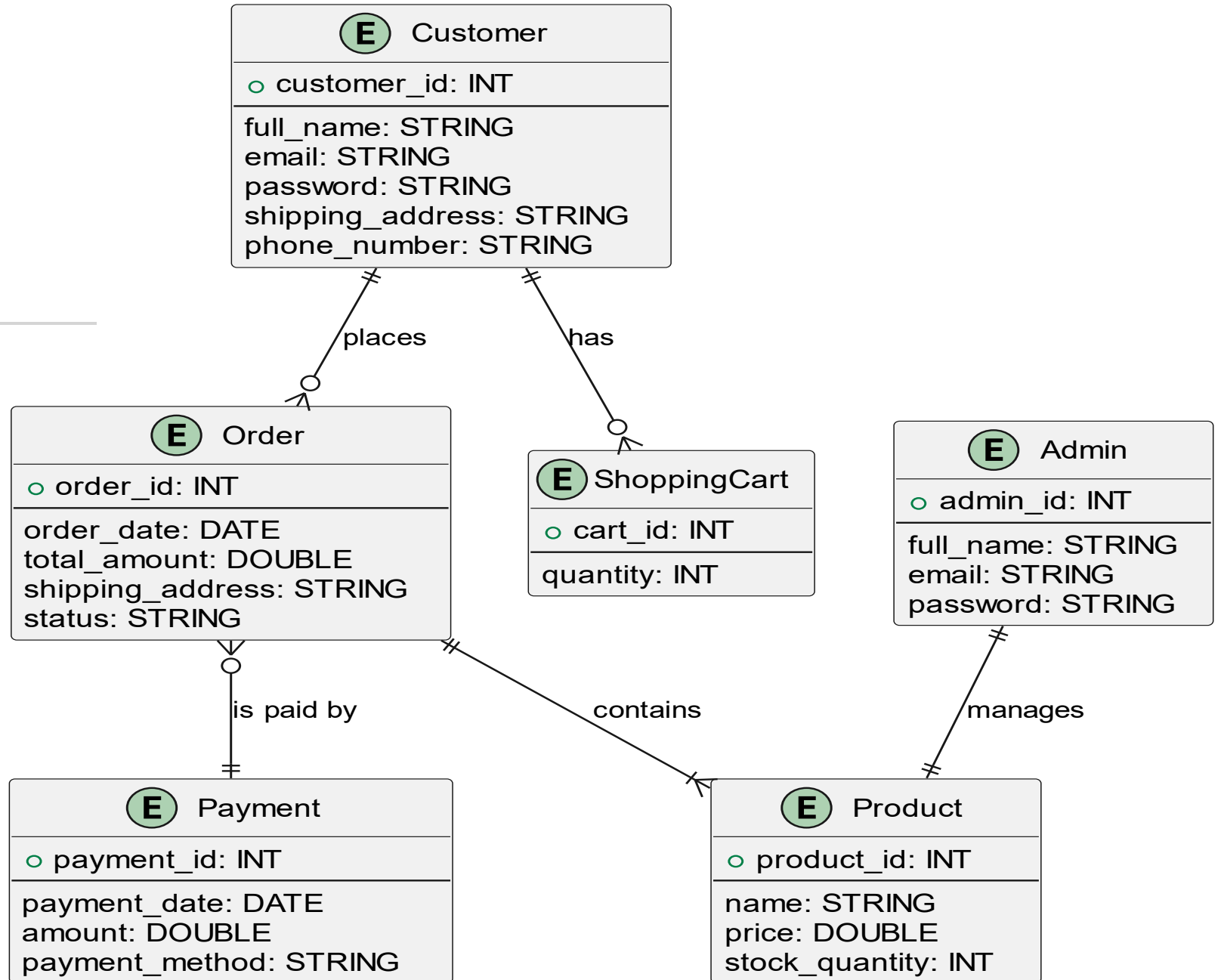
SEQUENCE DIAGRAM



CLASS DIAGRAM



ER DIAGRAM





THANK YOU