PHARMACIST MANAGEMENT SYSTEM

Group name: panadol

GROUP MEMBER

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I. Introduction

- Purchasing medicine from local pharmacies
- Preferring visiting pharmacies over hospitals for non-critical health concerns
- Easily approaching and possessing medicine when needed

Solution

- Web that can improve management for pharmacy owners and staff
- Simplify day-to-day tasks, visually represent records
- Effectively serving customers by storing user data for later uses

II. Requirement Analysis

Functional Requirements

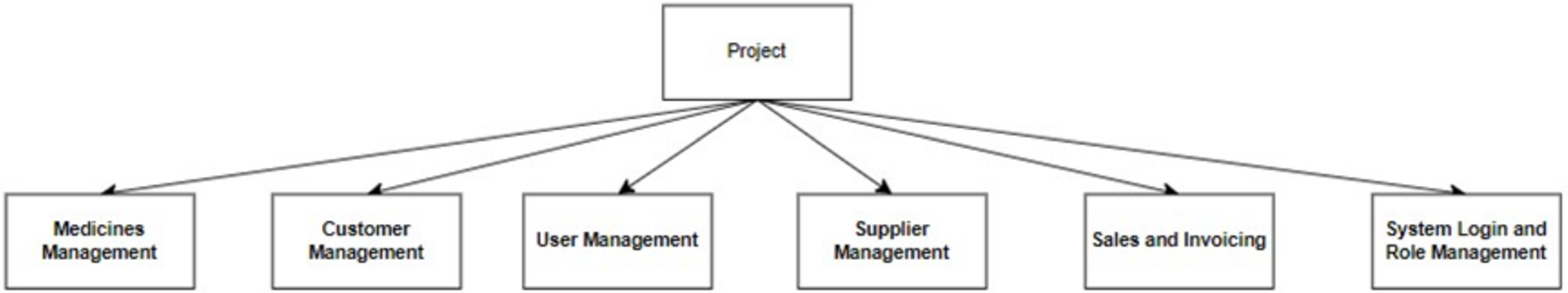
Use Case	Login
Scope of Work	- Backend Development Phase - 4 tasks - 15 hours
Product Scope	Secure login system for authentication
Requirements	**Functional**: - Display login form - Validate credentials with the database - Encrypt and securely store passwords - Notify invalid login attempts **Data**: - Credentials (username/password) must be valid - User info securely encrypted

Non-Functional Requirements

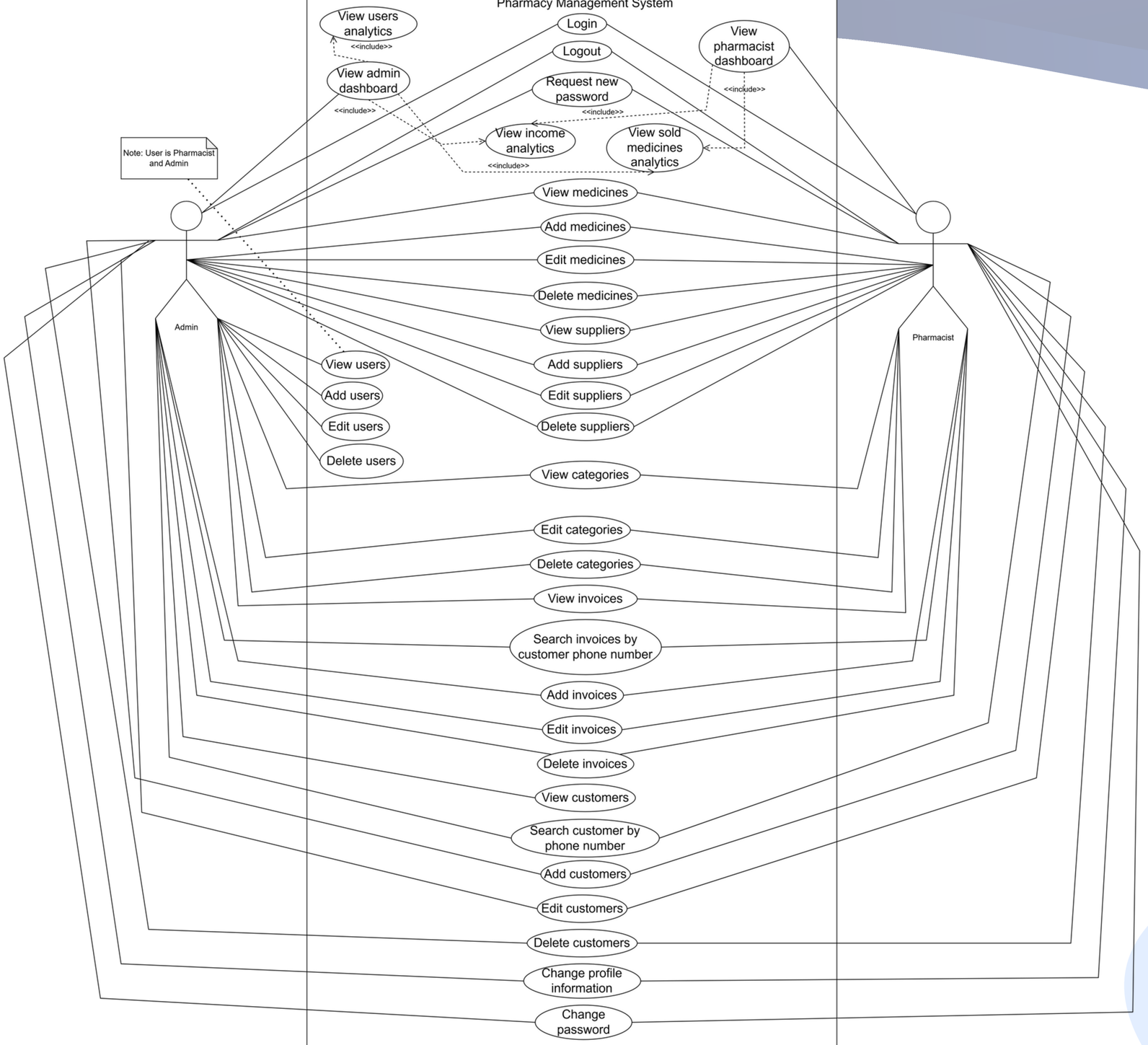
Category	Non-Functional Requirements
Operational	Seamless integration; sufficient hosting capacity; admin monitoring.
Legal	Cite third-party tools; protect custom code.
Usability	Intuitive UI; clear manuals; responsive design; efficient task completion.
Humanity	Training materials; user-friendly GUI; minimal learning curve.
Performance	Fast responses (e.g., login ≤ 2s); 1,000 users; 24/7 availability.
Maintainability	Clean code; scalable DB schema; easy updates.
Support	Hotline; remote tools; regular maintenance.
Security	Encrypt data; limit login attempts; daily backups; session timeouts.
Interface	Smooth integration; multilingual support; consistent design.

III. System design

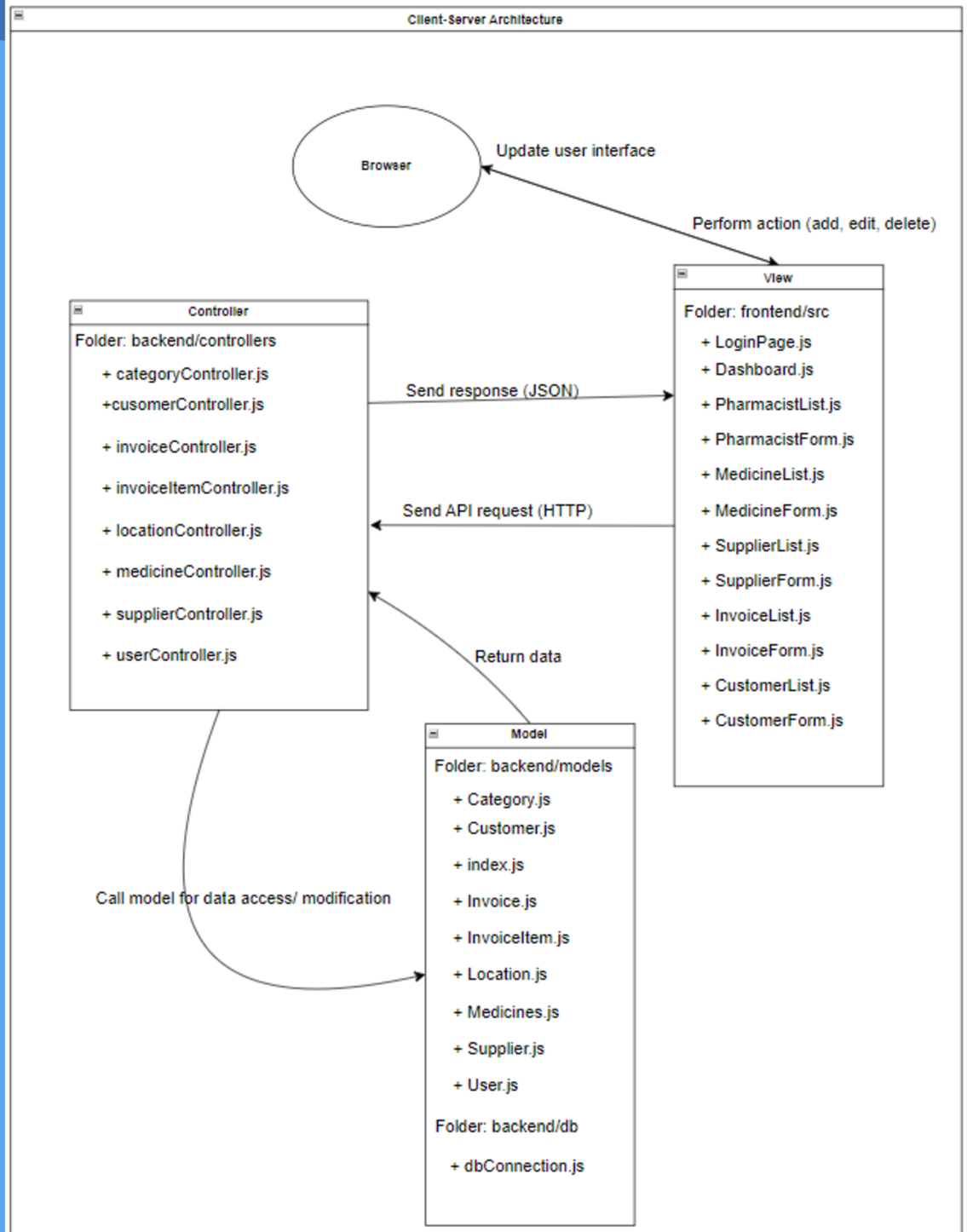
PROJECT STRUCTURE



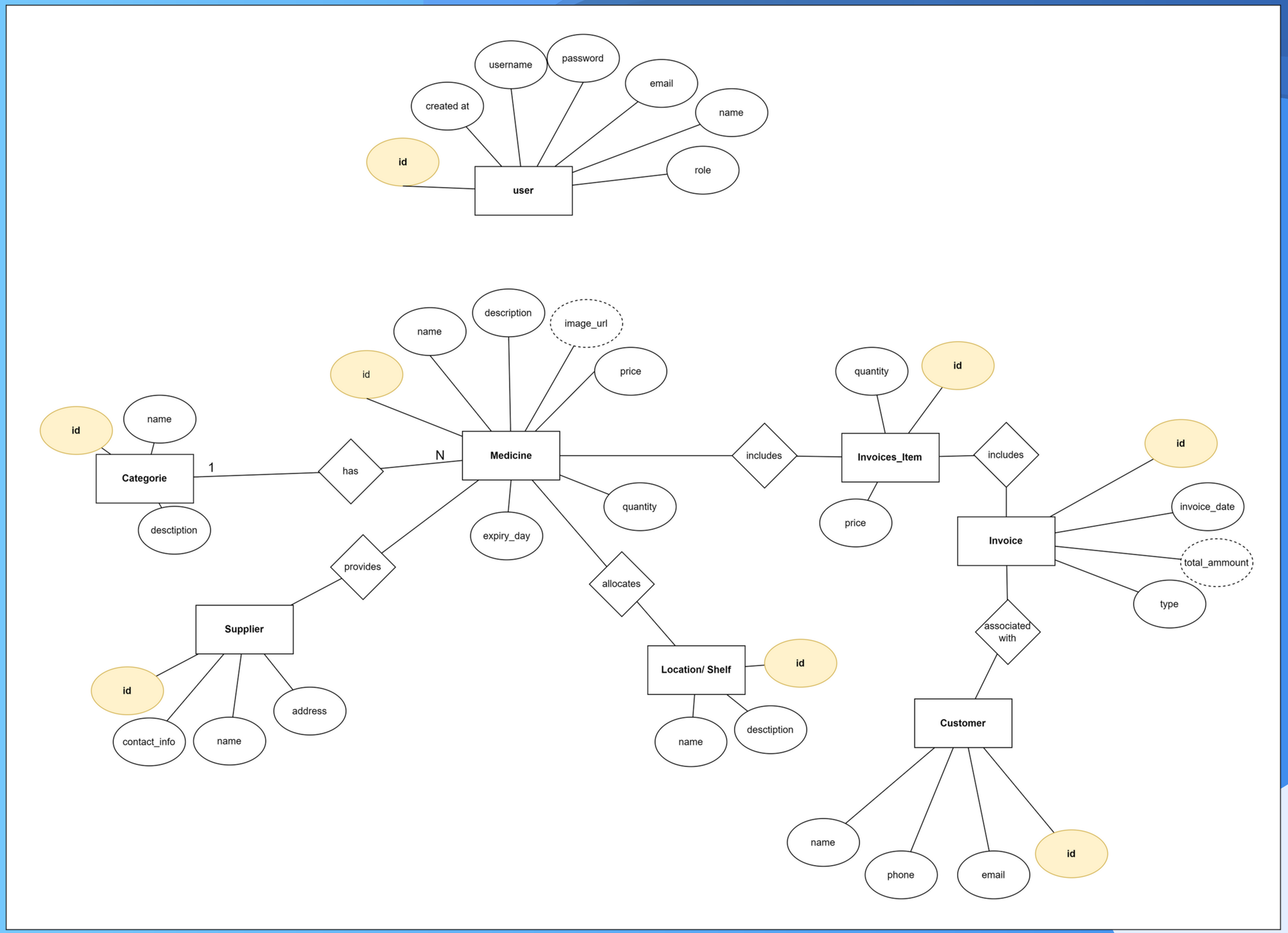
USE CASE DIAGRAM


Pharmacy Management System
View users analytics
<<include>>
View admin dashboard
<<include>>
Login
Logout
Request new password
<<include>>
View pharmacist dashboard
<<include>>
View income analytics
View sold medicines analytics
<<include>>
Note: User is Pharmacist and Admin
View medicines
Add medicines
Edit medicines
Delete medicines
View suppliers
Add suppliers
Edit suppliers
Delete suppliers
Admin
Pharmacist
View users
Add users
Edit users
Delete users
View categories
Edit categories
Delete categories
View invoices
Search invoices by customer phone number
Add invoices
Edit invoices
Delete invoices
View customers
Search customer by phone number
Add customers
Edit customers
Delete customers
Change profile information
Change password

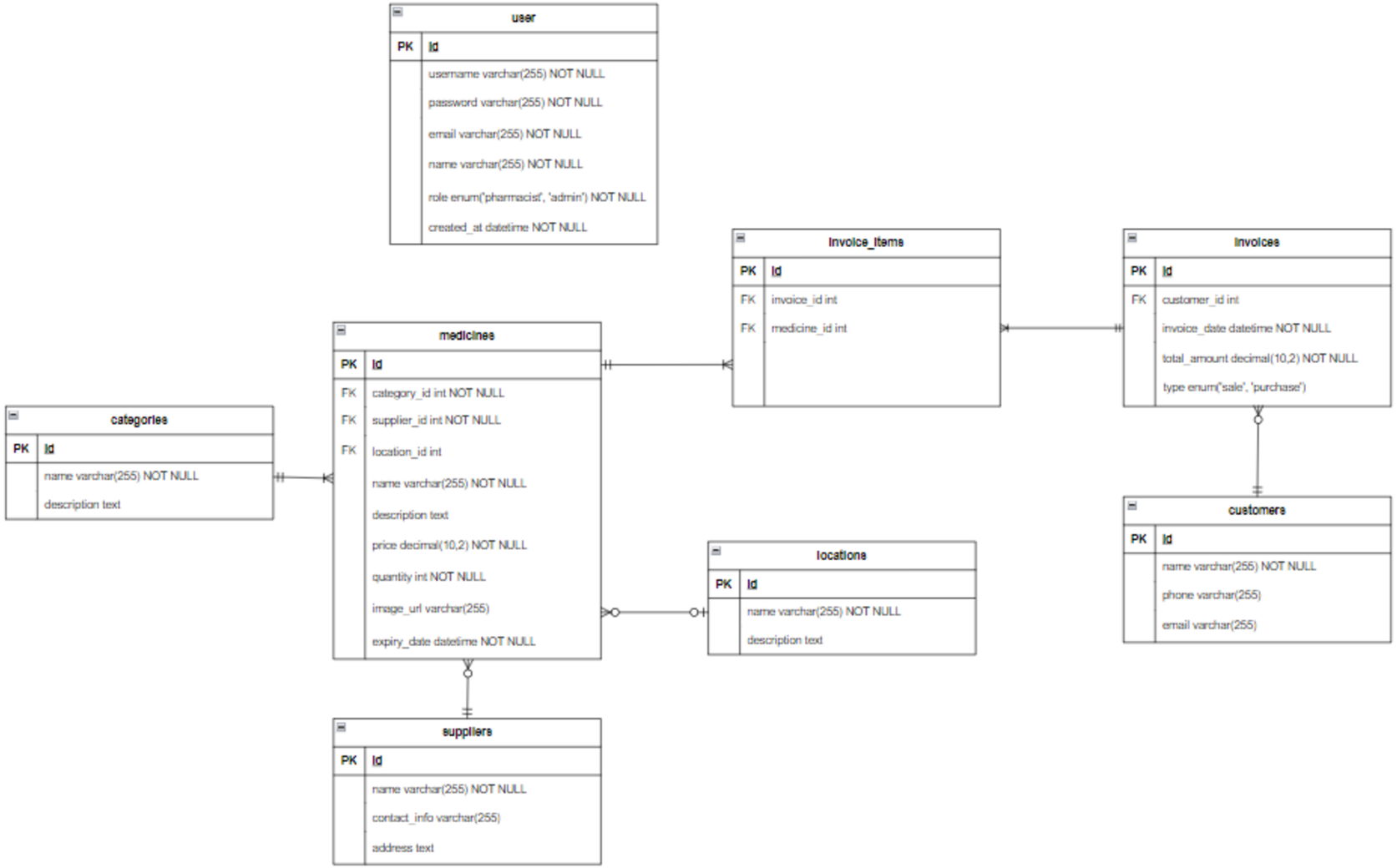
ARCHITECTURE MODEL



ENTITY RELATIONSHIP DIAGRAM

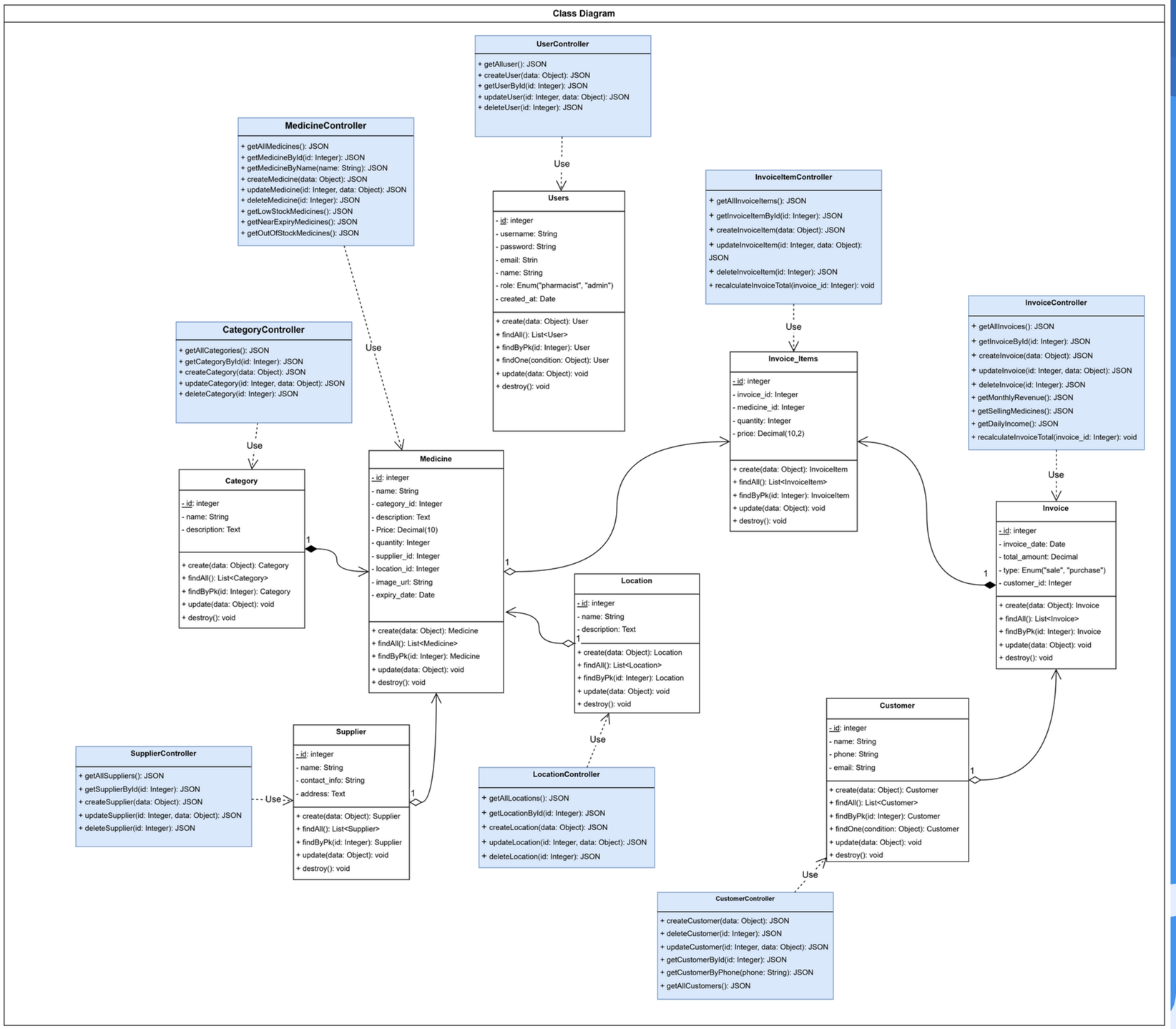

username
password
email
created at
name
id
role
user
description
name
image_url
id
price
id
name
Categorie
1
has
N
Medicine
includes
quantity
id
Invoices_Item
includes
id
desctiption
expiry_day
quantity
price
invoice_date
Invoice
total_ammount
type
provides
allocates
associated with
Supplier
Location/ Shelf
id
id
address
contact_info
name
name
desctiption
Customer
name
phone
email
id

DATA MODEL

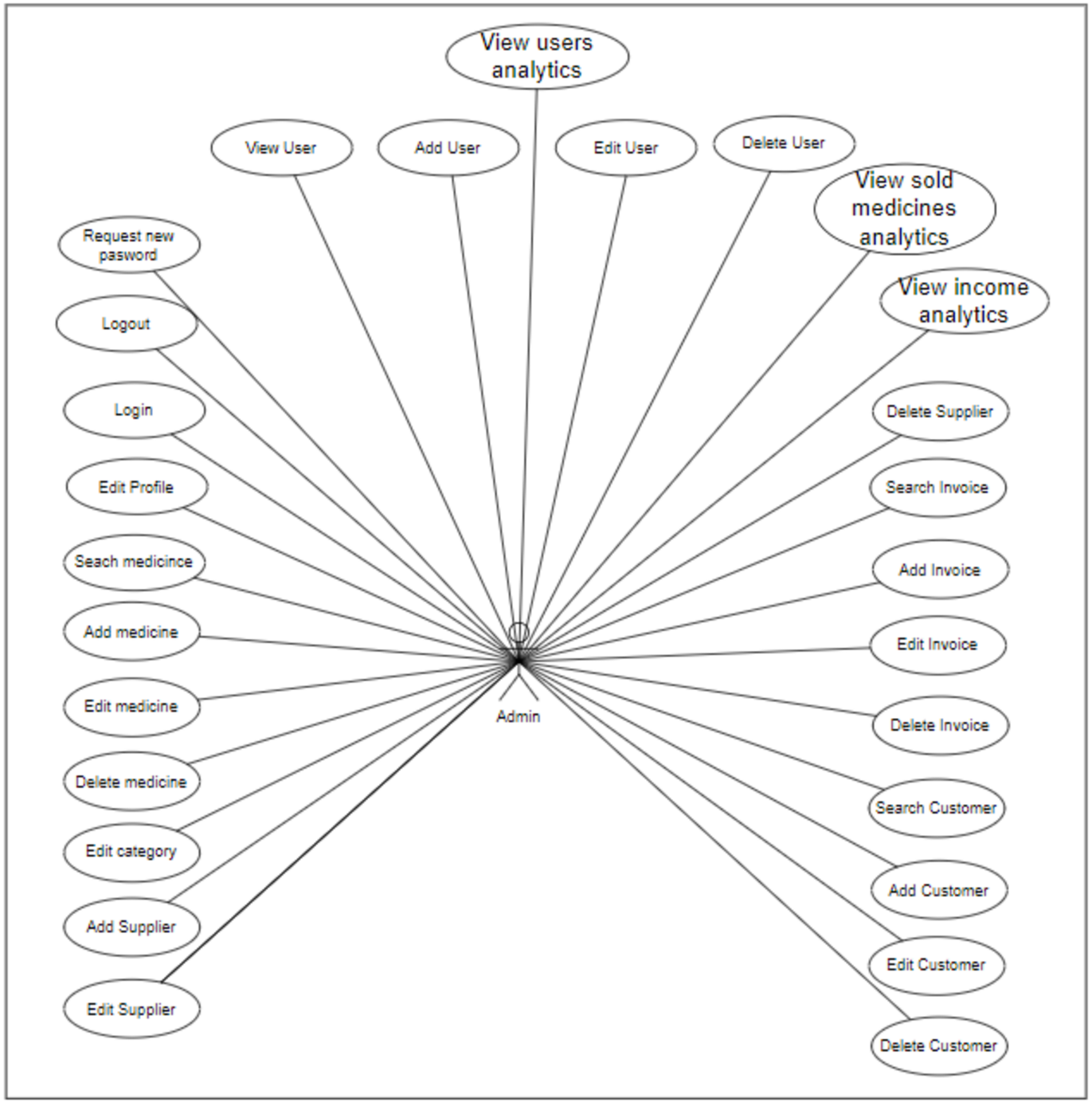

user
PK id
username varchar(255) NOT NULL
password varchar(255) NOT NULL
email varchar(255) NOT NULL
name varchar(255) NOT NULL
role enum('pharmacist', 'admin') NOT NULL
created_at datetime NOT NULL
invoice_items
PK id
FK invoice_id int
FK medicine_id int
invoices
PK id
FK customer_id int
invoice_date datetime NOT NULL
total_amount decimal(10,2) NOT NULL
type enum('sale', 'purchase')
medicines
PK id
FK category_id int NOT NULL
FK supplier_id int NOT NULL
FK location_id int
name varchar(255) NOT NULL
description text
price decimal(10,2) NOT NULL
quantity int NOT NULL
image_url varchar(255)
expiry_date datetime NOT NULL
categories
PK id
name varchar(255) NOT NULL
description text
locations
PK id
name varchar(255) NOT NULL
description text
customers
PK id
name varchar(255) NOT NULL
phone varchar(255)
email varchar(255)
suppliers
PK id
name varchar(255) NOT NULL
contact_info varchar(255)
address text

CLASS DIAGRAM

Class Diagram



USER GOAL USE CASE: ADMIN



USER GOAL USE CASE: PHARMACIST

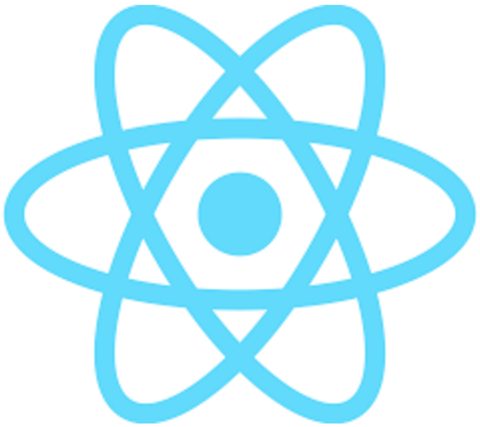
IV. Technique

FRONTEND

HTML

CSS

JavaScript



ReactJS

BACKEND - DATABASE

JavaScript

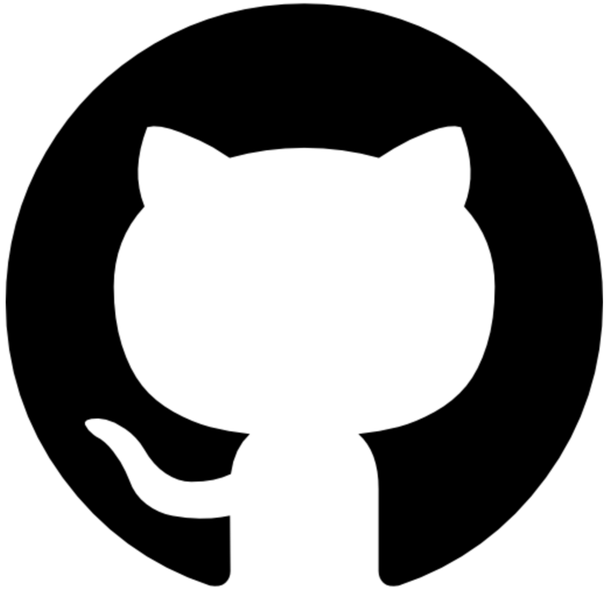
Express

ENVIRONMENT

DEPLOYMENT

Frontend	Backend	Database
		
Netlify	Render	Railway

TESTING AND VERSION CONTROL



Github

Postman

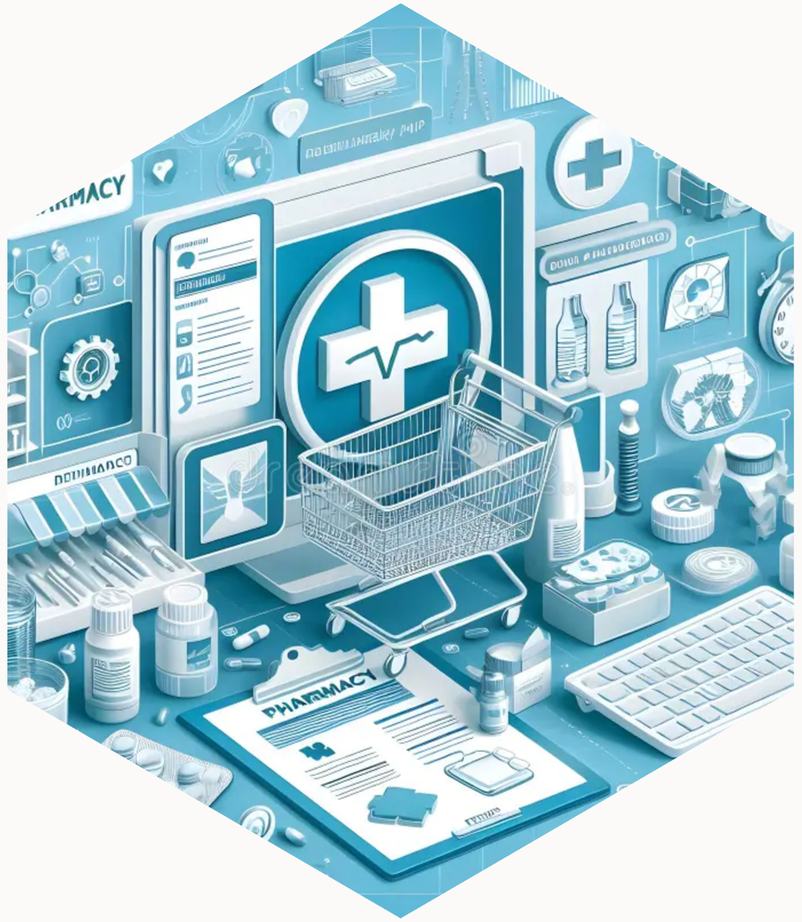
V. Conclusion and future work

CONCLUSION

- Improving Customer Service with Streamlined Processes
- Optimizing Inventory and Sales Management
- Enhancing Pharmacy Efficiency through Automation
- Ensuring Accuracy and Reducing Manual Errors
- A Modern Solution for Pharmacy Operational Challenges

FUTURE WORK

- AI-Based Inventory Forecasting
- Online Customer Portal
- Multi-Pharmacy Support
- Enhanced Security Features



VI. Demo and Q&A