

COMP225 – 006 SOFTWARE REQUIREMENTS ENGINEERING

Project Title: Pharmacy Management Systems

Part B

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COMP225 – Pharmacy Management Systems (PART B)

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1. Use case Table:

Use Case Name	Use Case ID	Actors	Description
Register as a Customer	UC01	Customer	Customers can register in the system by providing their personal information.
Log in	UC02	Customer	Customers can log in to their accounts using their username and password.
Search for Medications	UC03	Customer	Customers can search for medications based on various criteria.
View Medication Details	UC04	Customer	Customers can view detailed information about a specific medication, including dosage, side effects, and instructions.
Add Medication to Cart	UC05	Customer	Customers can add medications to their shopping cart for purchase.
Place Medication Order	UC06	Customer	Customers can proceed to place an order for the medications in their shopping cart.

Make Payment	UC07	Customer	Customers can provide payment information and complete the transaction for their medication order.
View Order History	UC08	Customer	Customers can view their past medication orders, including order details and tracking information.
Request Prescription Refill	UC09	Customer	Customers can request a refill for a previously prescribed medication.
View Prescription History	UC10	Customer	Customers can access a list of their current and past prescriptions, along with related details.
Update Personal Information	UC11	Customer	Customers can update their personal information, such as address, contact details, or insurance information.
View Pharmacy Information	UC12	Customer	Customers can access general information about the pharmacy, including operating hours, location, and contact details.
Contact Customer Support	UC13	Customer	Customers can initiate communication with customer support for inquiries, issues, or assistance.

Provide Feedback	UC14	Customer	Customers can provide feedback or suggestions regarding their experience with the pharmacy or the system.
View FAQs	UC15	Customer	Customers can access a list of frequently asked questions (FAQs) and their corresponding answers.
View Promotions or Discounts	UC16	Customer	Customers can view ongoing promotions, discounts, or special offers on medications.
Request Consultation	UC17	Customer	Customers can request a consultation with a pharmacist or healthcare professional for medication-related inquiries or advice.
Track Medication Delivery	UC18	Customer	Customers can track the status and estimated delivery time of their medication orders.
Receive Medication Delivery	UC19	Customer	Customers can confirm the receipt of delivered medications and provide feedback on the delivery process.
Logout	UC20	Customer	Customers can safely log out of their accounts and terminate their sessions.

Register as a Pharmacist	UC21	Pharmacist	Pharmacists can register in the system by providing their professional information and credentials.
Log in as a Pharmacist	UC22	Pharmacist	Pharmacists can log in to their accounts using their username and password to access specific features and functionalities.
View Patient Profiles	UC23	Pharmacist	Pharmacists can view comprehensive patient profiles, including personal information, medical history, allergies, and medications.
Dispense Medications	UC24	Pharmacist	Pharmacists can dispense medications to patients by accurately tracking medication quantity, dosage instructions, and patient details.
View Prescription Requests	UC25	Pharmacist	Pharmacists can view and process prescription requests received from doctors.
Manage Inventory	UC26	Pharmacy Technician, Supplier	Pharmacy technicians and suppliers can manage medication inventory, including stock updates, additions, removals, and expiration dates.

Generate Reports	UC27	Pharmacy Administrator, Regulatory Authorities	Pharmacy administrators and regulatory authorities can generate reports and analyze medication usage, inventory levels, and financial data.
Update Personal Information	UC28	Pharmacy Technician, Supplier, Pharmacist, Customer	Authorized system users can update their personal information, such as contact details, credentials, or professional information.
Manage FAQs	UC29	Pharmacy Administrator	Pharmacy administrators can set up and manage frequently asked questions (FAQs) in the system for users.
Process Insurance Claims	UC30	Pharmacy Administrator, Insurance Provider	Pharmacy administrators and insurance providers can process insurance claims for medication purchases.

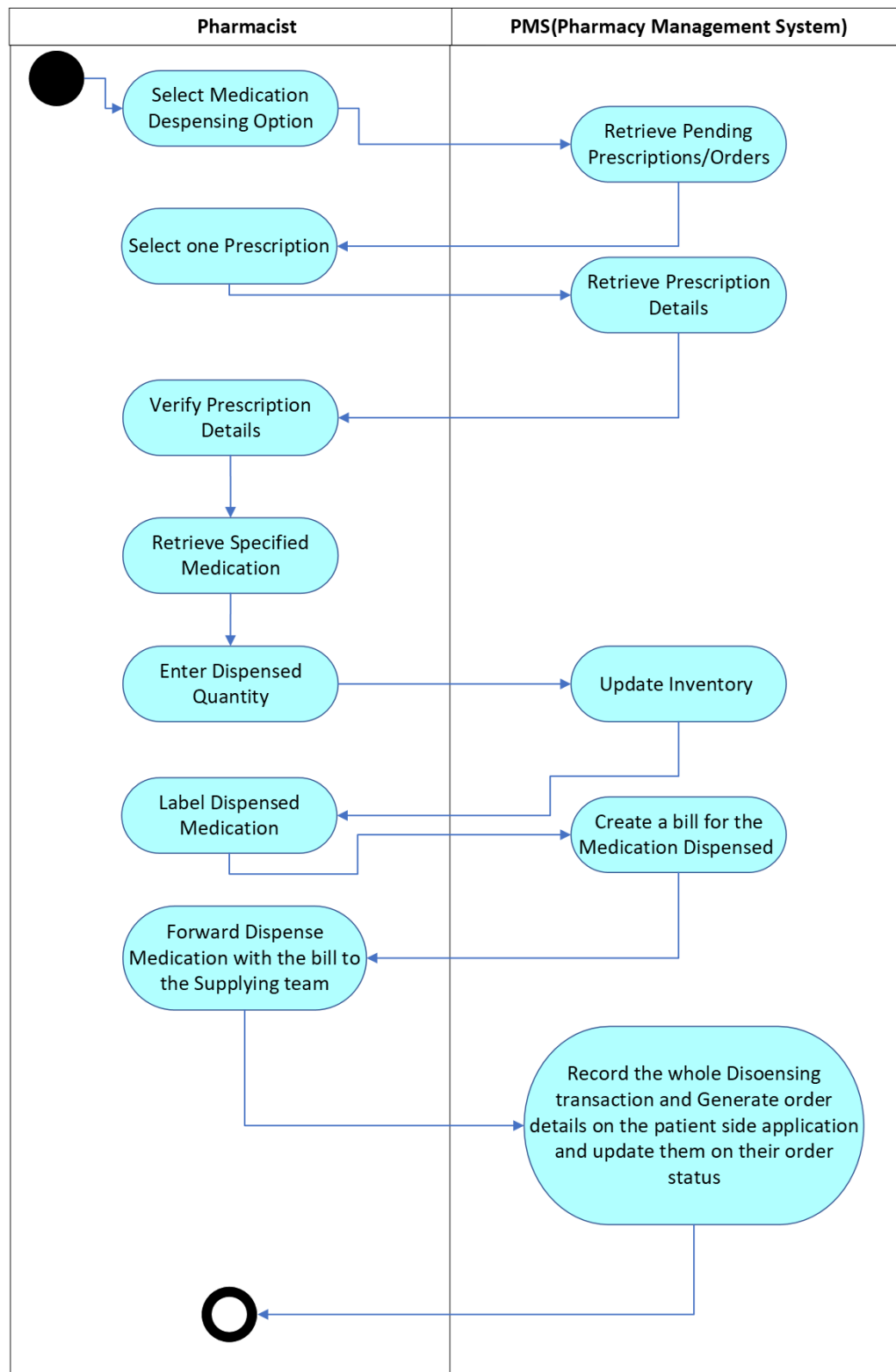
2. Use Case Description

Use case Name	Medication Dispensing
Primary Actors	Pharmacists
Goal in Context	The goal of this use case is to enable pharmacists to accurately dispense medications to patients by tracking medication quantity, dosage instructions, and patient details.

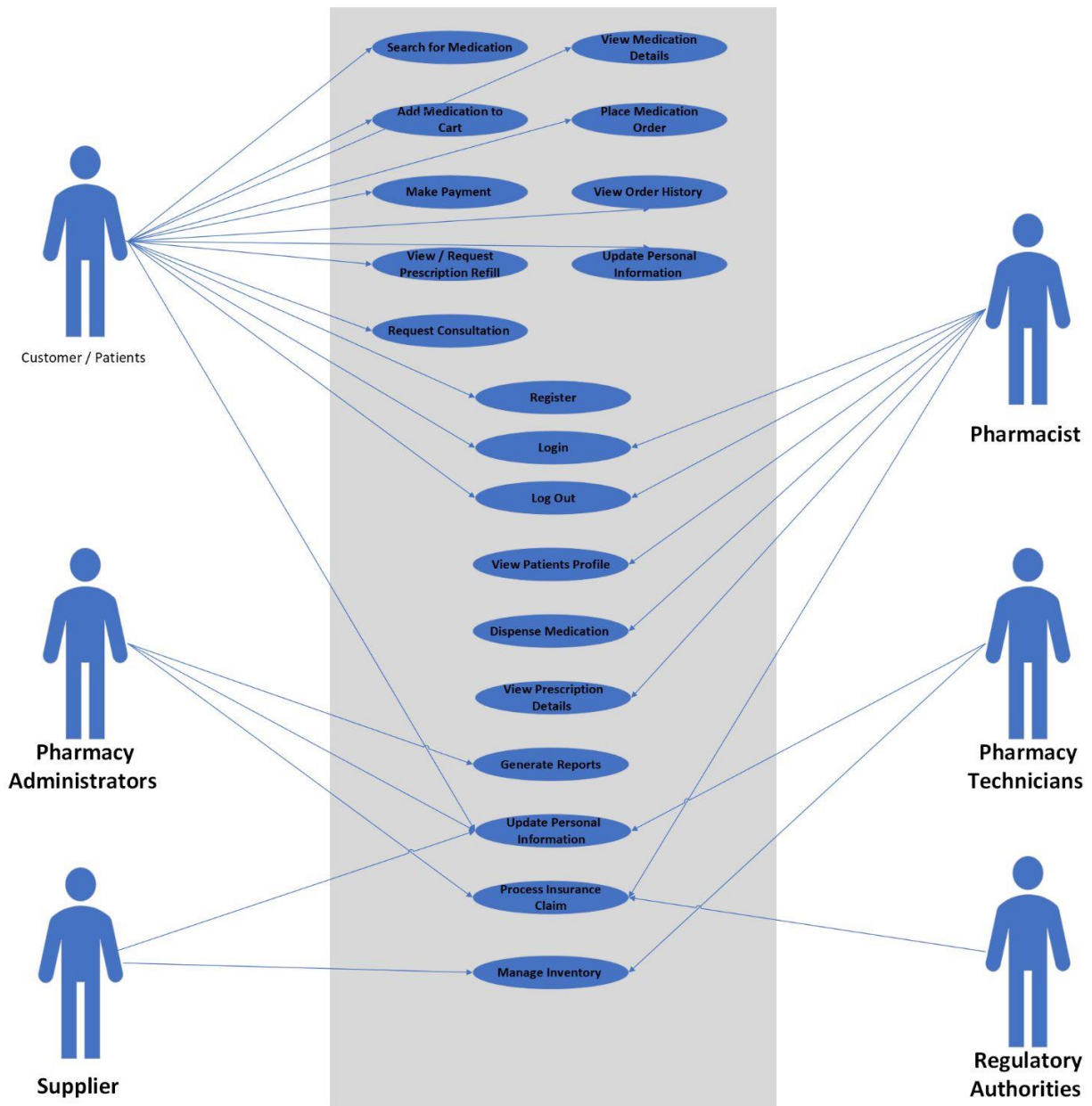
Preconditions	The goal of this use case is to enable pharmacists to accurately dispense medications to patients by tracking medication quantity, dosage instructions, and patient details.
Trigger	<ul style="list-style-type: none"> • The pharmacist is logged into the Pharmacy Management System. • The patient's prescription is available in the system.
Scenario Details	<ol style="list-style-type: none"> 1. The pharmacist selects the "Medication Dispensing" option in the Pharmacy Management System. 2. The system presents a list of pending prescriptions to be dispensed. 3. The pharmacist selects a prescription from the list. 4. The system retrieves the prescription details, including medication information, dosage instructions, and patient details. 5. The pharmacist verifies the prescription details against the physical prescription or the patient's information. 6. If there are any discrepancies or concerns, the pharmacist contacts the prescribing medical professional for clarification or resolution. 7. Once satisfied with the prescription, the pharmacist retrieves the medication from the pharmacy inventory. 8. The pharmacist verifies that the retrieved medication matches the prescription details, including the medication name, strength, and dosage form. 9. If the medication is in a different form or strength, the pharmacist consults with the prescribing medical professional for necessary adjustments or alternatives. 10. The pharmacist enters the dispensed quantity of the medication. 11. The system updates the medication inventory, decrementing the dispensed quantity from the available stock. 12. The pharmacist labels the medication container with the patient's name, prescription details, and any additional instructions. 13. The pharmacist provides the dispensed medication to the patient along with proper counseling and instructions.

	14. The system records the dispensing transaction, including the pharmacist's name, dispensing date, and dispensed quantity.
Exceptions	<ul style="list-style-type: none"> • If there are discrepancies or concerns with the prescription details, the pharmacist contacts the prescribing medical professional for clarification or resolution. • If the retrieved medication does not match the prescription details, the pharmacist consults with the prescribing medical professional for necessary adjustments or alternatives.
Priority	High
When Available	This use case is available whenever a pharmacist needs to dispense medications to patients.
Frequency of Use	The frequency of use depends on the number of patients requiring medication dispensing in the pharmacy.
Channel to actor	The pharmacist interacts with the Pharmacy Management System through a computer or other appropriate devices.

Swimlane Diagram:

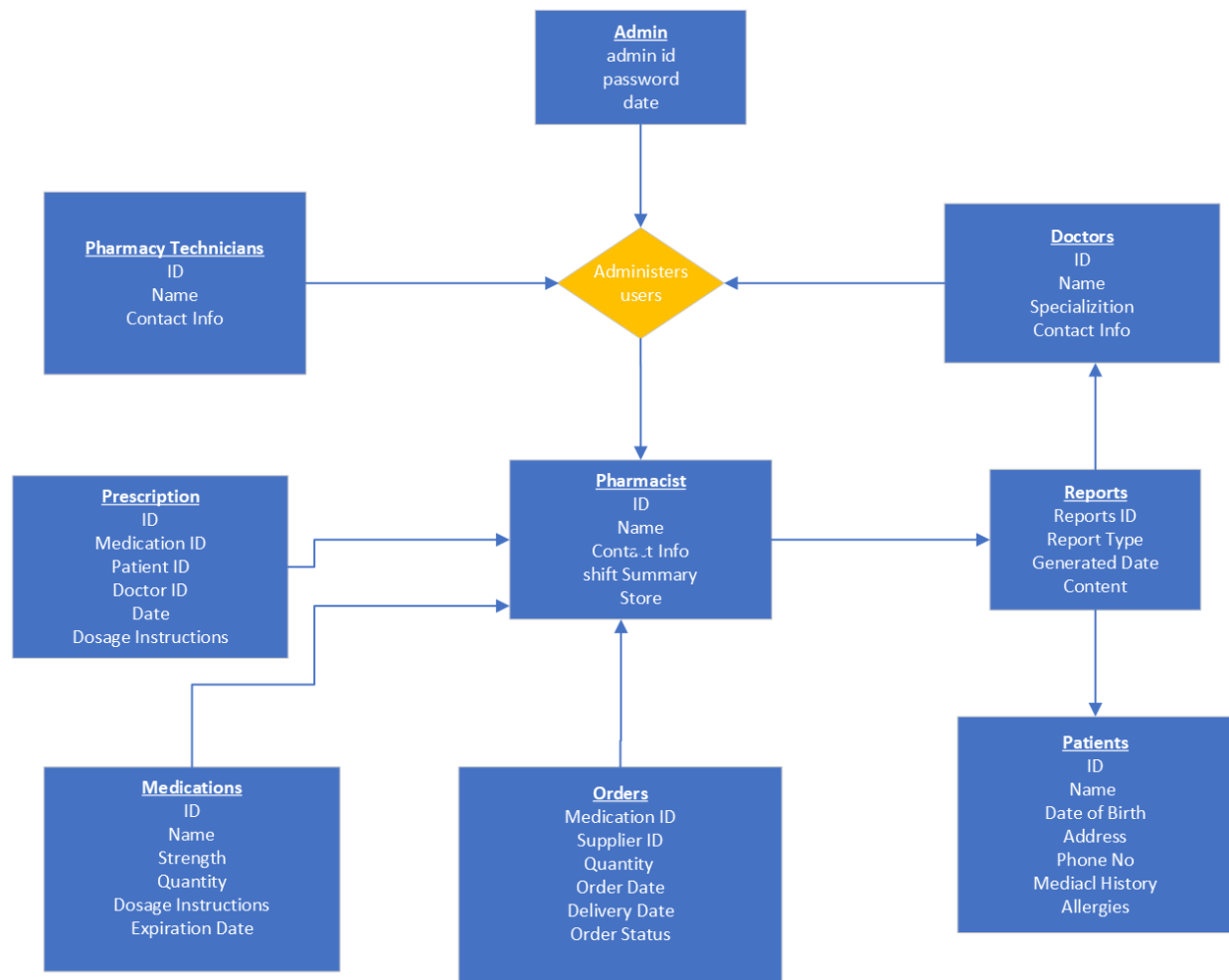


3. Use Case Diagram

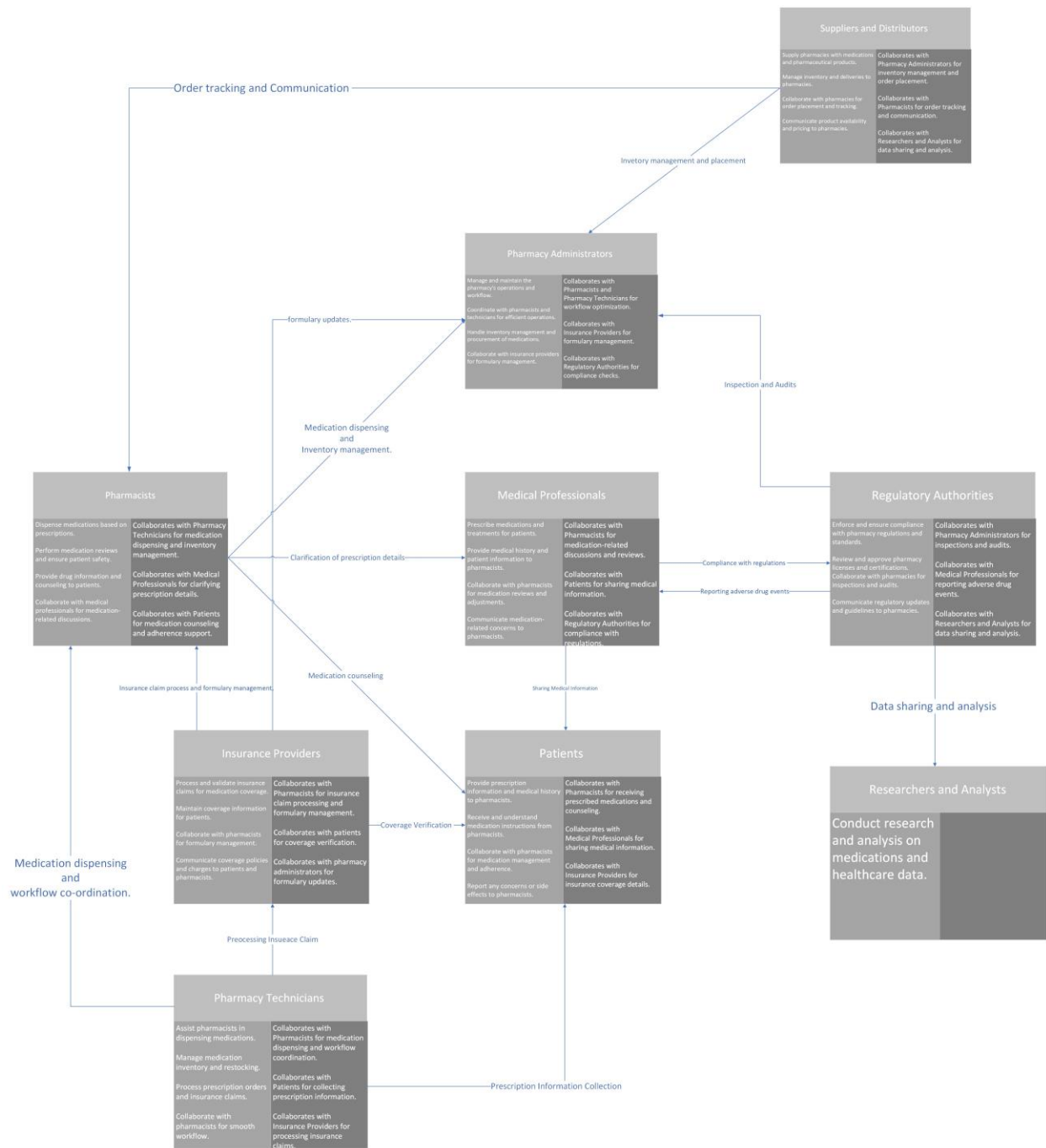


USE CASE DIAGRAM

4. Class Diagram



5. CRC Diagram:



6. CRC Class Diagram

