Phase 1: Problem Understanding & Industry Analysis

In healthcare, one of the biggest challenges is **managing prescriptions and medicines**. Even today, many hospitals and pharmacies still depend on **paper-based prescriptions**, which creates lots of problems. Patients forget to request refills, doctors can't track whether patients are taking medicines regularly, and pharmacists face difficulties in managing stock because they don't get real-time updates.

This often results in **missed doses, delayed treatments, and poor coordination** between doctors, patients, and pharmacies. To solve these problems, our project aims to build a **digital prescription and medication management system** using Salesforce CRM.

Before jumping into building the system, we must carefully understand the **problem, people involved, workflows, industry rules, and existing tools**. That is the focus of Phase 1.

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1. Requirement Gathering – Listening to Everyone's Needs

The first step is to talk to the people who will actually use the system. Each group has its own needs and pain points:

- **Doctors** want a way to issue prescriptions online and check if their patients are taking medicines on time.
- **Pharmacists** want clear prescription records, real-time stock updates, and alerts for low inventory.
- **Patients** want simple reminders to take their medicines, and an easy way to request refills without running to the pharmacy.
- **Hospital Admins** want proper reports, secure storage of health data, and tools to check if everything is being followed.
- **Insurance Companies** (if included) want quick access to prescriptions for claims processing.

By collecting these needs, we make sure the system we build is **useful, practical, and solves real-world problems**.

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2. Stakeholder Analysis – Who is Involved?

After gathering requirements, the next step is to clearly identify **who plays what role**:

- **Doctors** 🩺 – They create prescriptions and approve refills.
- **Pharmacists** 💊 – They provide medicines and update stock.
- **Patients** 👤 – They request refills, receive reminders, and keep track of their medicines.

- **Admins** 🏥 – They make sure the system runs smoothly, handle compliance, and generate reports.
- **Insurance** 🛡️ – They can use digital prescriptions to process claims quickly.

By defining these roles early, we ensure that the system is built around the **real needs of people**.

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3. Business Process Mapping – From Paper to Digital

Right now, the way prescriptions are managed is **slow and outdated**:

- Doctors write paper prescriptions.
- Patients have to visit the pharmacy again and again.
- Pharmacists work without real-time stock visibility.
- No reminders are sent → patients forget doses.
- Reports take a long time to prepare and are often inaccurate.

With a digital CRM system, this process becomes **smarter and faster**:

- Doctors create prescriptions directly in the system.
- Patients automatically receive SMS or email reminders for doses and refills.
- Patients request refills online → system notifies doctor and pharmacist.
- Pharmacists get instant stock updates.
- Admins can see ready-made reports and dashboards.

This shift from manual to digital saves **time, effort, and mistakes**.

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4. Industry-Specific Use Case Analysis – Following the Rules

Since this system deals with sensitive **health data**, we cannot ignore rules and regulations.

- **HIPAA** (in the US) makes sure health data is private and secure.
- **GDPR** (in Europe) ensures personal data is handled responsibly.

For example:

- Only authorized pharmacists should be able to dispense restricted medicines.
- Patients' data should be encrypted and only shared with people who are allowed to see it.
- Medicines nearing expiry should be flagged early to prevent waste.

By following these rules, we make sure the system is **safe, trustworthy, and legally compliant**.

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5. AppExchange Exploration – Learning from What Already Exists

Salesforce has an **AppExchange marketplace** where many ready-made healthcare apps are available.

- **Health Cloud** helps track patient records.
- **Medication Management Apps** manage prescriptions and adherence.
- **SMS/Notification Apps** send reminders to patients.

Exploring these apps gives us **inspiration and best practices**. Instead of building everything from scratch, we can learn from what already works.

Conclusion of Phase 1

In Phase 1, we understood the **problem**, identified **who will use the system**, mapped out how the **current manual process can be improved digitally**, studied **rules and regulations**, and looked at **existing solutions** for inspiration.

This sets a **strong foundation** for the next phases. With this knowledge, we can now move into **designing and configuring the system in Salesforce** to bring these ideas to life.