GOVERNMENT POLYTECHNIC, BRAMHAPURI
DIST.CHANDRAPUR

Department of Computer Technology

Synopsis

On

"QuickMeds–An Online Pharmacy "

Smarter health choices at your Fingertips

Submitted for partial fulfillment of the diploma in

Computer Technology

By

1.Tanmay Warthe

2.Lobhas Gawande

3.Shyam Murodiya

4.Fariha Sheikh

5.Rhushabh Gumte

Under the Guidance of

Prof. S. K. Kharkate

INDEX

Chapter 1

Problem Definition and Abstract

Problem Definition:

Key issues with existing online Pharmacies

1. Delayed and Unreliable Deliveries: Getting medications on time is essential, especially for people with long-term health conditions. Many online pharmacies struggle with delivering medicines quickly. Delays can put patients at risk if they don't receive their medications when needed. In addition, many platforms do not offer real-time tracking, leaving customers unsure about where their orders are.

2. Inadequate Verification and Quality Assurance: There's a concern that some online pharmacies do not have proper systems to verify if the medicines they sell are authentic. This increases the risk of customers receiving fake or poor-quality drugs, which could harm their health. Additionally, medicines might not be stored or shipped correctly, affecting how well they work.

3. Complex User Interfaces and Lack of Accessibility: Some online pharmacy websites are hard to use, especially for older adults or people who are not comfortable with technology. The complicated design and lack of easy-to-use features make it difficult for these users to place orders or find the information they need.

4. Weak Data Security and Privacy Concerns: Online pharmacies collect sensitive information, including personal and medical details. Many platforms are not secure enough, putting users at risk of data breaches, where their private information can be stolen or misused.

The existing online pharmacy systems are plagued by a range of issues as mentioned above.

This project aims to develop an innovative online pharmacy platform that addresses these gaps by providing a more reliable, secure, and user-centric experience.

Here's how QuickMeds will be better:

2. Fast and Reliable Deliveries: QuickMeds will focus on delivering medicines on time, especially for urgent or recurring prescriptions. We will provide real-time tracking so customers can always see where their orders are and when they will arrive. This reduces the risk of patients running out of necessary medications.

3. Verified and Quality-Assured Medicines: QuickMeds will ensure that all medications sold are authentic and stored properly. We will have a strict verification process for suppliers, making sure that patients receive safe and effective medicines every time.

4. User-Friendly and Accessible Interface: Our platform will be easy to use for everyone, including elderly people and those who are not tech-savvy. With a simple design and clear instructions, users will be able to navigate the website or app without frustration. We will also include features like larger text and voice assistance for accessibility.

5. Strong Data Security: QuickMeds will prioritize the privacy and safety of our customers' data. We will use advanced encryption and security technologies to protect sensitive information, making sure that customers' personal and medical details are safe from cyber threats.

Abstract:

A pharmacy management system is, especially, to facilitate managing the supply of medicines needed by a hospital, which makes it easier to treat hospital patients in general. This system involves information technology and databases as a repository of information that is useful in managing the hospital, various tools needed to build a reliable system.

QuickMeds is an online pharmacy platform designed to provide an easy, efficient way for users to order medicines and healthcare products. It aims to bridge the gap between pharmacies and customers by offering online prescription management, order tracking, and home delivery. The system caters to both patients and healthcare professionals, ensuring seamless interaction between users and pharmacists.

Chapter 2

Introduction

In recent years, online pharmacies have gained immense popularity due to the convenience they offer. Customers no longer need to visit physical stores to purchase medications, as online pharmacies allow them to order from the comfort of their homes. However, despite the widespread adoption of these platforms, several significant drawbacks have become evident, impacting user experience, safety, and the overall effectiveness of online pharmacy services. This project aims to address the key limitations in the existing online pharmacy systems and provide a more robust, efficient, and user-friendly platform.

QuickMeds is an online solution that offers customers a platform to buy medicines, supplements, and healthcare products at the click of a button. It enables users to upload prescriptions, search for products, and place orders. Pharmacies can manage inventory, track orders, and offer customer support through the platform. QuickMeds aims to make medication more accessible and convenient, especially for those who may have trouble visiting a physical pharmacy.

Objectives :

Develop a secure and easy-to-use platform for users to order medicines online.

Ensure secure transactions and reliable delivery services.

Scope :

The platform offers users the ability to browse and order medications, manage their prescriptions, and securely handle payments. Built using Python/Django, the platform ensures robust backend functionality and seamless user interaction via an intuitive frontend.

Chapter 3

Design

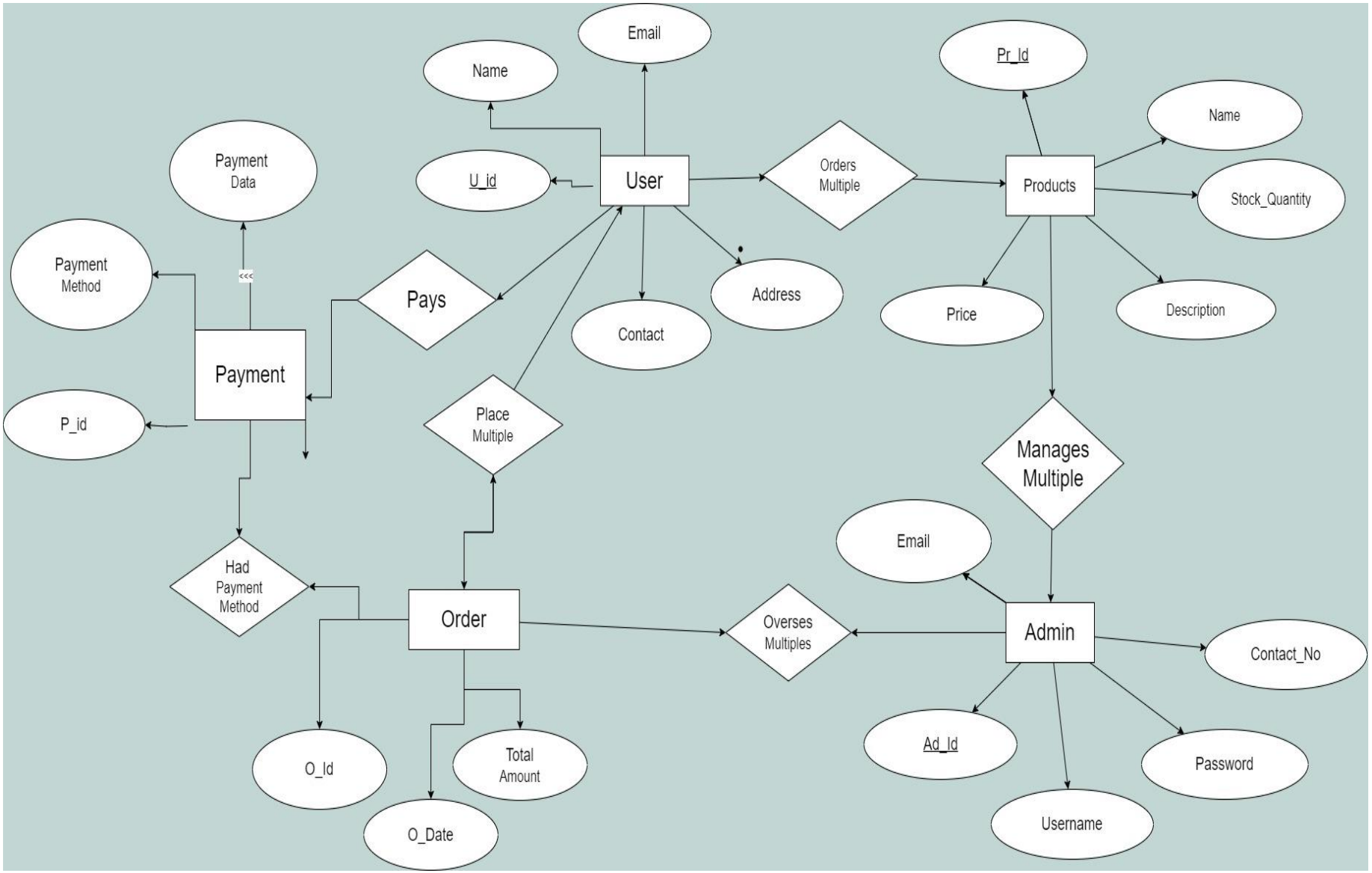
Entity-Relationship (ER) Diagram:

Entities :

- User (attributes: user_id, name, email, contact)
- Admin (ad_id, username , password , email , contact_no)
- Product (attributes: productid, name, description, price)
- Order (attributes: order_id, user_id, total amount, order_date)
- Payment (attributes: payment, order_id, payment_method, payment status)

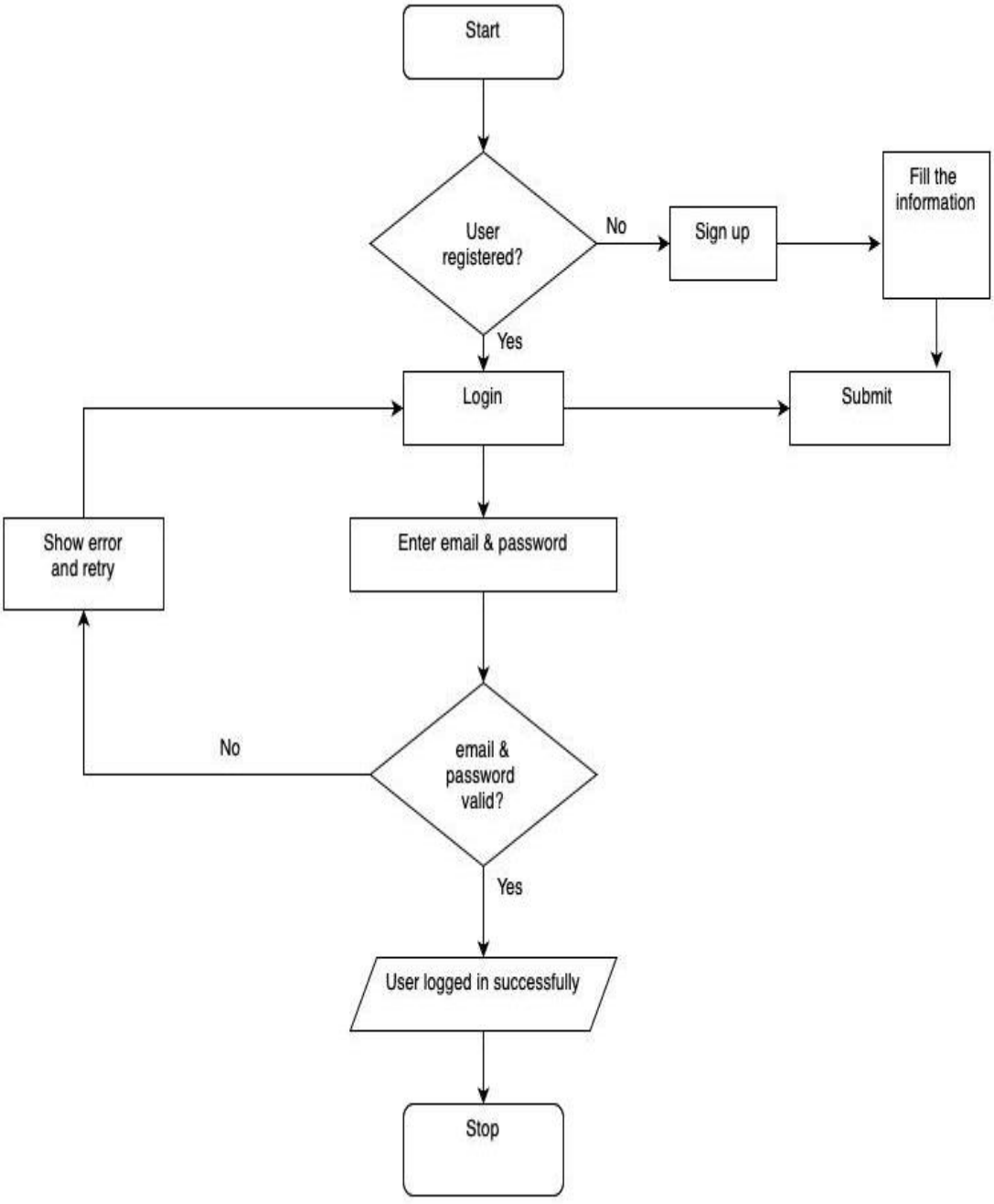
Relationships:

- A user can place multiple orders.
- Each order can have multiple products.
- A prescription is linked to a specific user.
- Each order has one payment method.

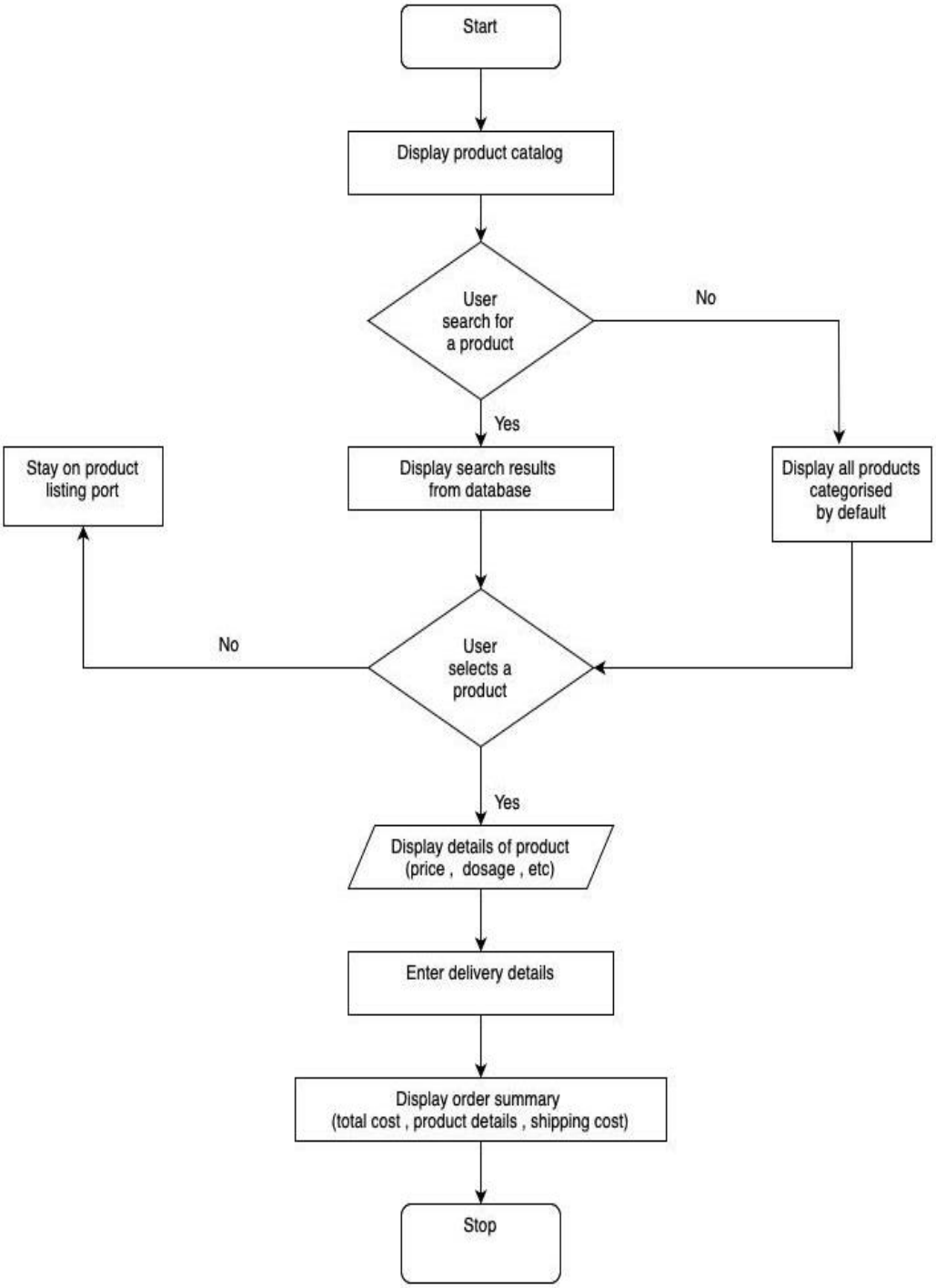

Email
Name
Pr_Id
Name
Payment Data
U_id
User
Orders Multiple
Products
Stock_Quantity
Payment Method
Pays
Address
Contact
Price
Description
Payment
P_id
Place Multiple
Manages Multiple
Email
Had Payment Method
Order
Overses Multiples
Admin
Contact_No
O_Id
Total Amount
Ad_Id
Password
O_Date
Username

FLOWCHART:

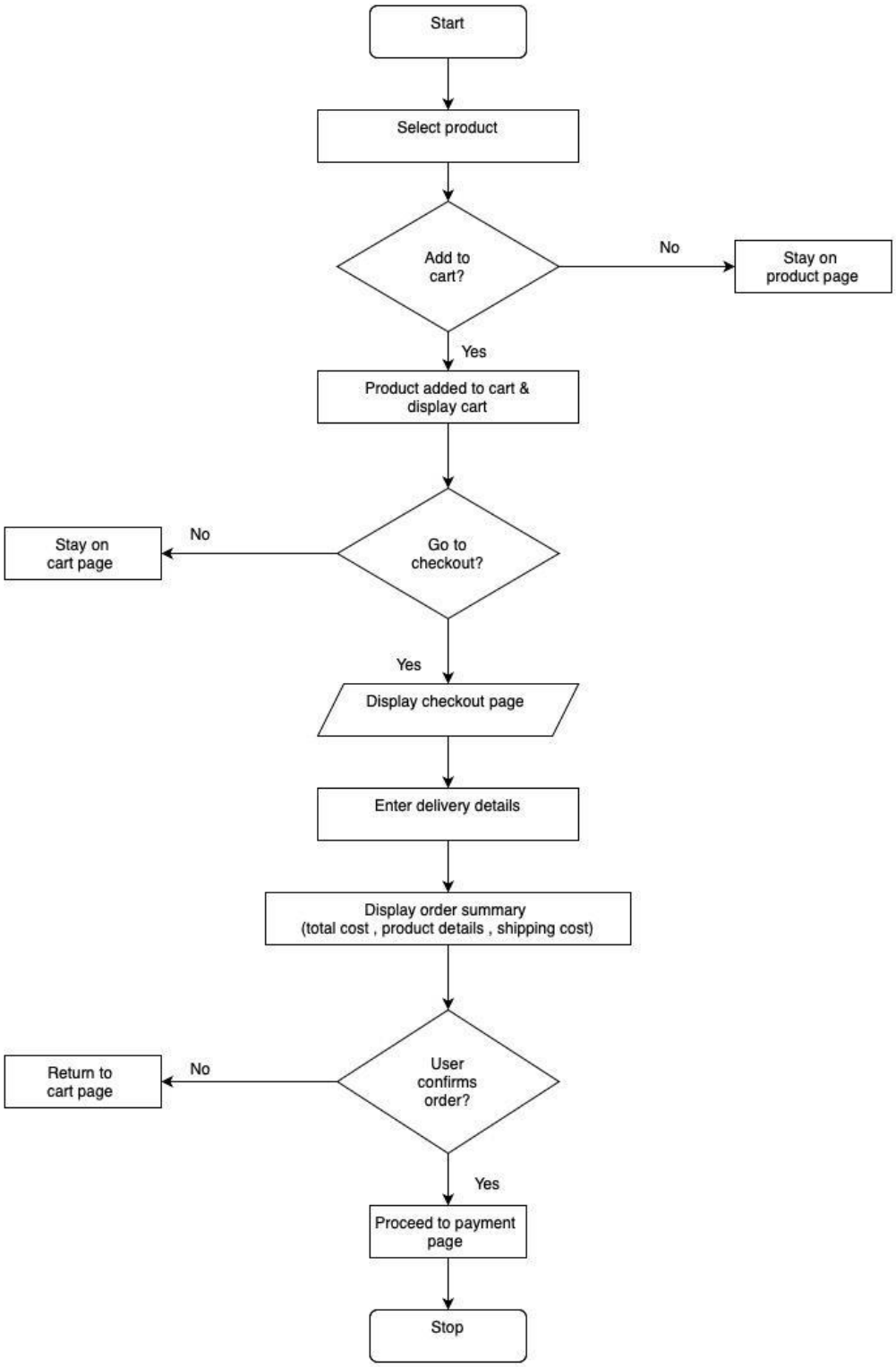
1. User Registration/Login Flowchart



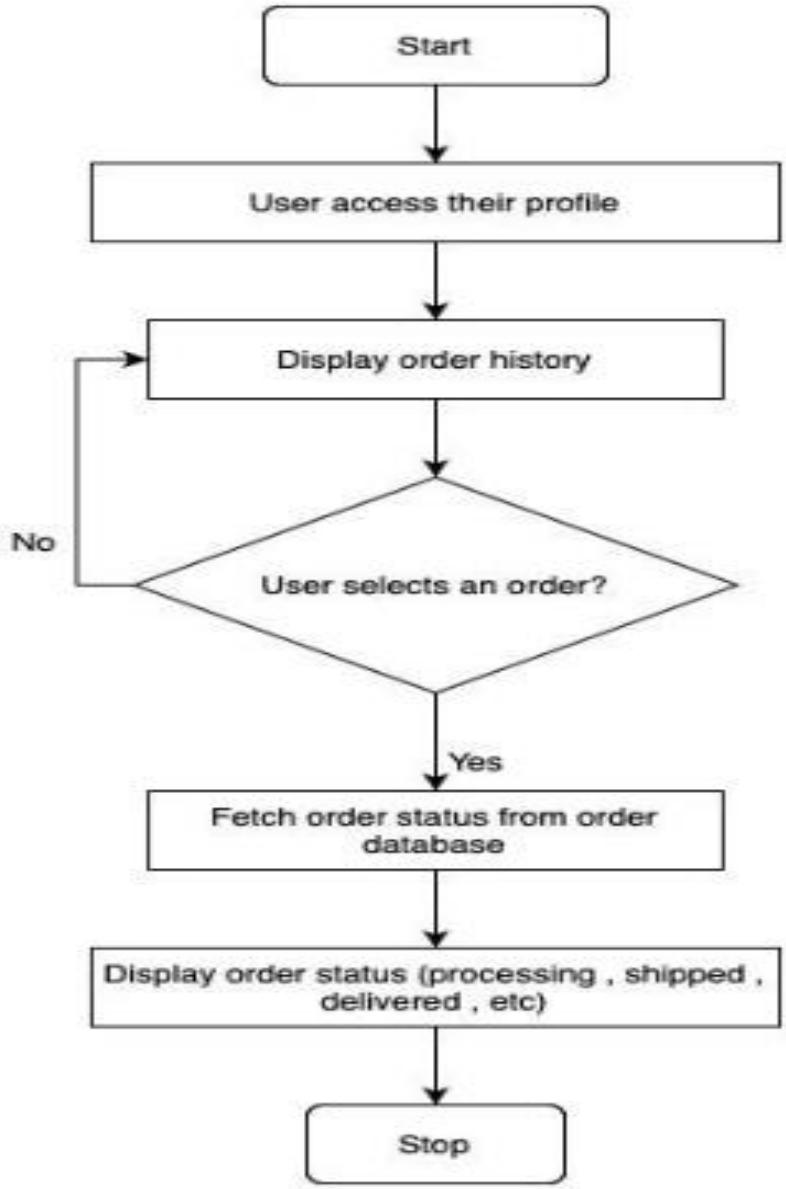
2. Product search and Catalog Flowchart



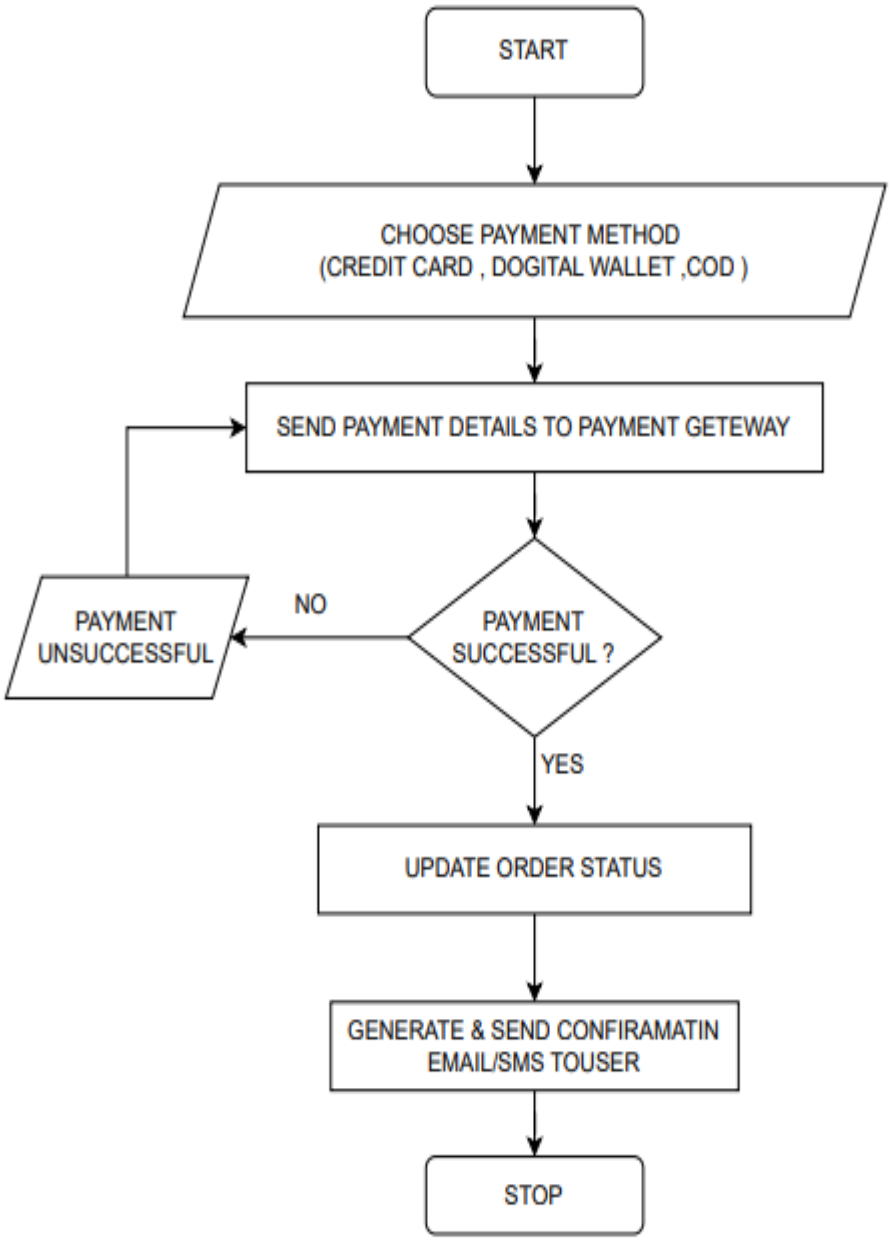
3. Add to Cart and Checkout Flowchart



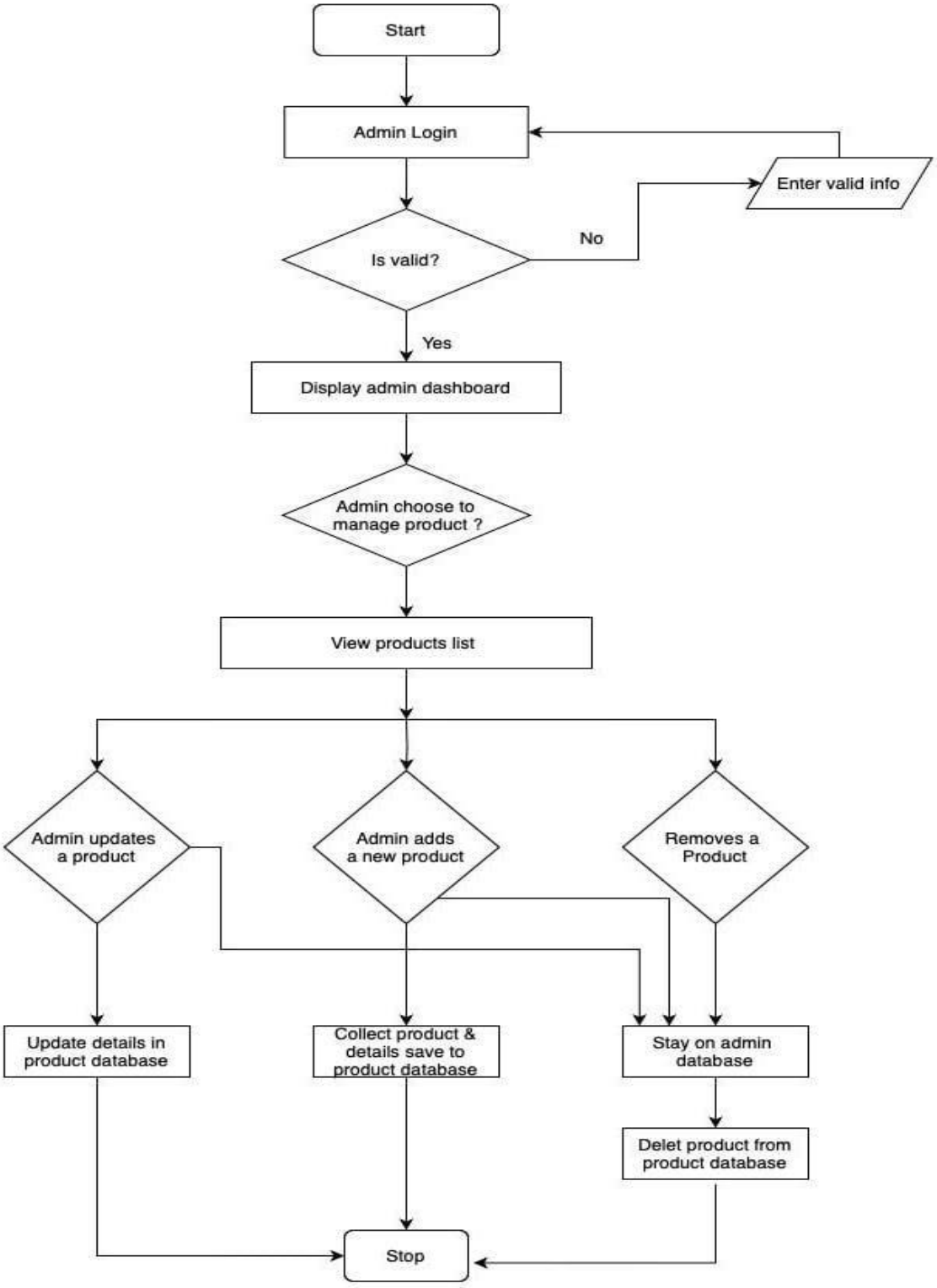
4. Order Tracking Flowchart



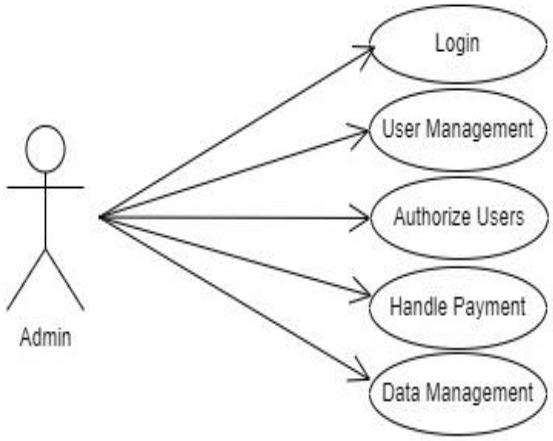
5. Payment Method Flowchart

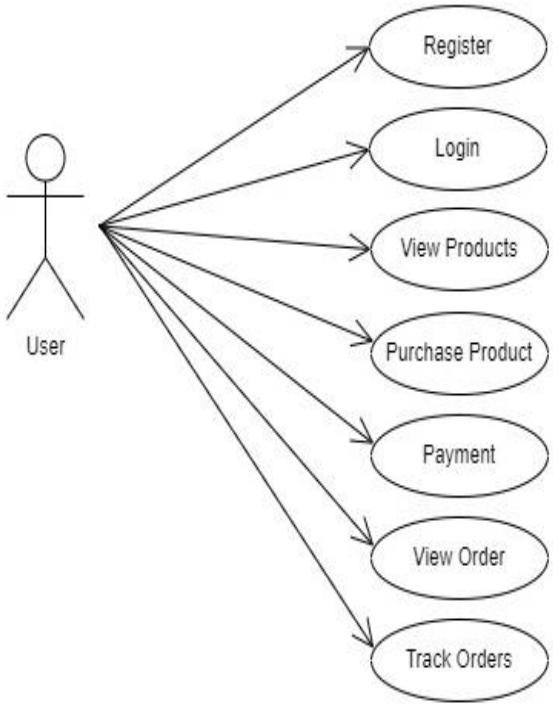


6. Admin Inventory Management Flowchart



USE CASE DIAGRAM:





Chapter 4

Implementation Details

QuickMeds - An Online Pharmacy project, the functional requirements will outline the specific actions and features that the system must provide to meet the business needs. Here are some functional requirements for an online pharmacy:

1. User Management

User Registration: Users should be able to register with personal details like name, email, phone, and address.

User Authentication: Login/logout functionality, using email and password, or OAuth (e.g., Google, Facebook).

Profile Management: Users can view, update, or delete their personal information.

2. Product Catalogue

Medicines/Products Listing: Display a catalo of available medicines and health products, categorized by type, condition, or brand.

Search Functionality: Users can search for medicines by name, category, symptoms, or manufacturer.

Product Details: Each product has a detailed page with its description, price and availability status.

3 Shopping Cart and Checkout

Add to Cart: Users can add products to their cart.

Cart Management: View, update, or remove items from the cart.

Checkout Process: Facilitate the purchase process by guiding the user through the order confirmation, delivery address input, and payment options.

Order Summary: Display a summary of the items in the cart, total price, and shipping costs before order confirmation.

4. Payment System

Multiple Payment Options: Integration of various payment methods such as credit/debit cards, net banking, digital wallets, and cash on delivery.

Payment Gateway Integration: Secure integration with payment gateways for online transactions.

Order Confirmation: Provide confirmation after successful payment and generate an invoice.

5. Order Management

Order Tracking: Users can track the status of their orders (e.g., processing, shipped, delivered).

Order History: Users can view their past orders, reorder products, and download invoices.

6. Delivery Management

Delivery Address Management: Users can add, edit, or delete multiple delivery addresses.

Delivery Notifications: Notifications and alerts via email/SMS about order status updates (e.g., order shipped, out for delivery).

10. Admin Management

Inventory Management: Admins should be able to manage products, including adding new medicines, updating stock levels, and removing unavailable products.

Order Management: Admins should be able to view, update, and process customer orders.

User Management: Admins can manage users, view their order history, and address user queries.

Reports and Analytics: Provide reports on sales, user activity, popular products, and financial summaries.

Technologies Used:

Frontend: HTML5, CSS3, JavaScript (with Bootstrap for responsive design).

Backend: Python/Django for handling server-side logic, user authentication, and database management.

Database: MySQL for storing user, order, and prescription data.

Payment Gateway: Integration with payment processors like PayPal or Rozorpay to handle secure online transactions.

Chapter 5

Literature Survey

We have read some research papers from google scholar

After reading it we have found some key issues in it and we have decided to overcome that all issues in our upcoming project.

There are some following issues:

1. Delayed and Unreliable Deliveries[1]:

Many online pharmacies struggle with delivering medications on time, especially for patients with long-term health conditions. QuickMeds will focus on fast deliveries and provide real-time tracking to ensure customers receive their medications when needed.

2. Inadequate Verification and Quality Assurance[3]:

Some online pharmacies fail to verify the quality of medications, which can lead to customers receiving fake or unsafe drugs. QuickMeds will guarantee all medicines are authentic, properly stored, and quality-assured before shipping.

3. Complex User Interfaces and Lack of Accessibility[4]:

Current platforms often have complicated designs, making it difficult for users, especially older adults, to navigate. QuickMeds will offer a simple and user-friendly interface with accessible features, ensuring ease of use for everyone.

4. Weak Data Security[2]:

Many online pharmacies do not protect customer information adequately, leaving them vulnerable to data breaches. QuickMeds will prioritize security with strong encryption and data protection measures to keep customer information safe.

Our upcoming project will overcome all this drawbacks in following ways:

- It will provide reliable delivers.
- Verification.
- User-Friendly and Accessible Interface.
- Strong data Security.

Chapter 6

Hardware & Software Requirements

Hardware:

Server with at least 8 GB RAM and 100 GB storage to host the application and database.

High-speed internet connection for seamless user experience.

Software Requirements:

- Operating System: Windows ,Mac.
- Web Server: Django's built-in server
- Database: MySQL for persistent data storage.
- Development Tools: Visual Studio Code for coding, and Git for version control.

Chapter 7

Conclusion & References

Conclusion :

QuickMeds is designed to simplify the process of ordering and receiving medications online. By allowing users to upload prescriptions, search for products, and track their orders, the platform makes healthcare more accessible and convenient. Pharmacists can efficiently manage their inventory and orders, ensuring timely delivery to customers. QuickMeds serves as a bridge between pharmacies and consumers, bringing healthcare directly to people's homes.

References:

1. Eysenbach, G. (2001). Online pharmacy: Legal, regulatory, and economic aspects. *Journal of Medical Internet Research*, vol.3.

2. Cline, R. J., & Haynes, K. M. (2001). Consumer health information seeking on the internet: The state of the art. *Health Education Research*, 16(6), 671-692.

3. Orizio, G., Schulz, P. J., Domenighini, S., et al. (2009). Quality of online pharmacies and their impact on consumer trust. *BMC Medicine*, 7(1), 19.

4. Arcury, T. A., Quandt, S. A., & Sandberg, J. C. (2019). Aging, the digital divide, and mobile health. *Journal of Gerontology: Series B*, 74(5), 827-834.

5. Wirachchaya Chanpuypetch & Duangpun Kritchanchai (2017): International Journal of Healthcare Management

6. Mahyuddin K. M. Nasution,Shahrul Azman Mohd Noah, Urip Harahap: Overview of The Pharmacy Management System in a Hospital