Project: Pharma Buddy

Group -09

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1. PROBLEM STATEMENT

The world today has moved to online systems in a vast variety of domains, but an app/website that pertains to the availability of pharmacies still alludes us, this causes the customers/patients to look for them manually or use search engines to dictate the market. Although there are websites that help with e-prescriptions and EHR implementation, they fail to provide any information that details the availability of pharmacies and the various prices and availability they offer for medicines. This is the problem that our team aims to solve.

2. Business Need

The following needs highlight the need for a new system

- Currently People need to find pharmacies manually or through search engines
- Pharmacies provide un-competitive prices for necessary prices
- No centralized database is available for information about pharmacies location, medicine availability etc.
- EHR applications track the drug and health related aspects of the patients, but they fail to provide any information on pharmacies.
- No database available for the public to track and adjust drug related aspects generally provided to pharmacy benefit managers.
- Patients have to contact the different pharmacy benefit managers individually for information.

3. Target Audience/Users

The following listed are the target audience of the system

- People who need medical care but do not want to spend too much money for it.
- People with disabilities and specific medical conditions.
- People who do not want to go out of their houses for small medical services.
- People living in rural areas and those who live miles away from a hospital or pharmacy

4. Overall Goal/Objectives

This project's major purpose is to develop a business model that makes use of location-based technology. It has three functions: it locates the nearest pharmacy, it plans and schedules users' pill consuming intake, and it searches for pharmacies that sell the medical product that users are seeking for. The project will be called **PHARMA BUDDY.**

We aim to provide a reduction in the pharmacy delivery times by 20% by decreasing the lookup time and provide a significant increase in pharmacy sales.

5. Scope

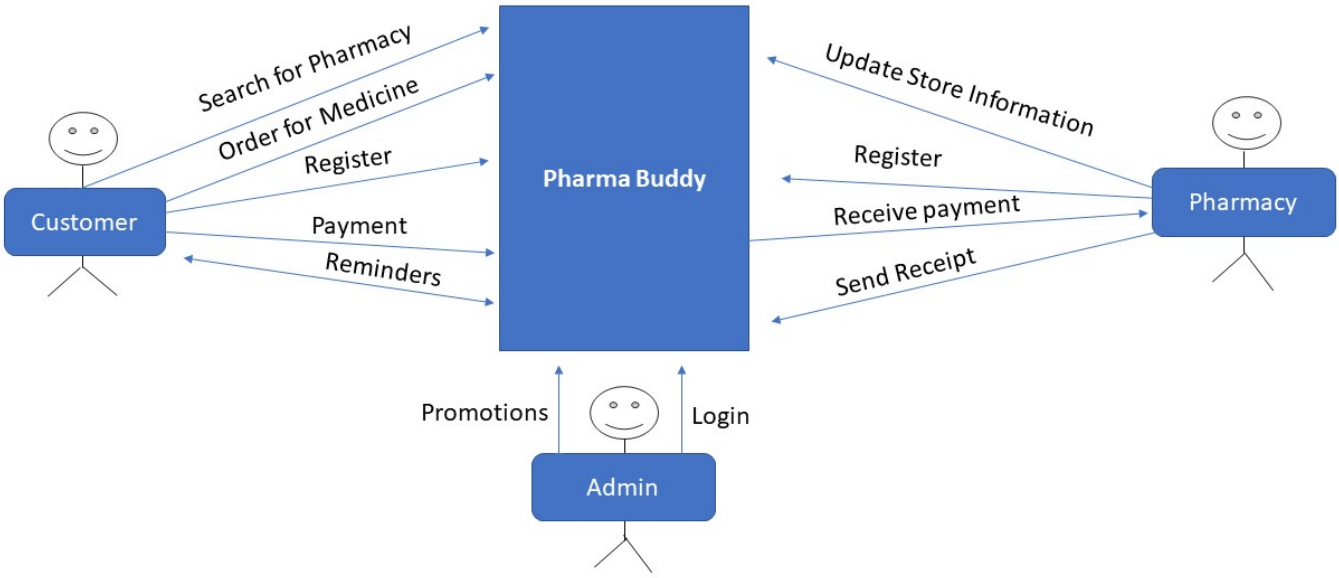
The project will focus on accomplishing the following tasks

- Keep a database of pharmacies and the medicine availability at every instance
- Track medical needs of patients and suggest re-fill times with suggestions about the location data of a pharmacy
- Additionally provide data about the drug pricing at different pharmacies to make the market more competitive
- Provide ordering option for home delivery of required medicines
- Additionally track real time health data (heart rate, blood-glucose, steps walked) to suggest healthier living options and provide the data to doctors to provide a more personalized healthcare experience
- Customized tracker for pregnancy, child-care, physiotherapy etc.

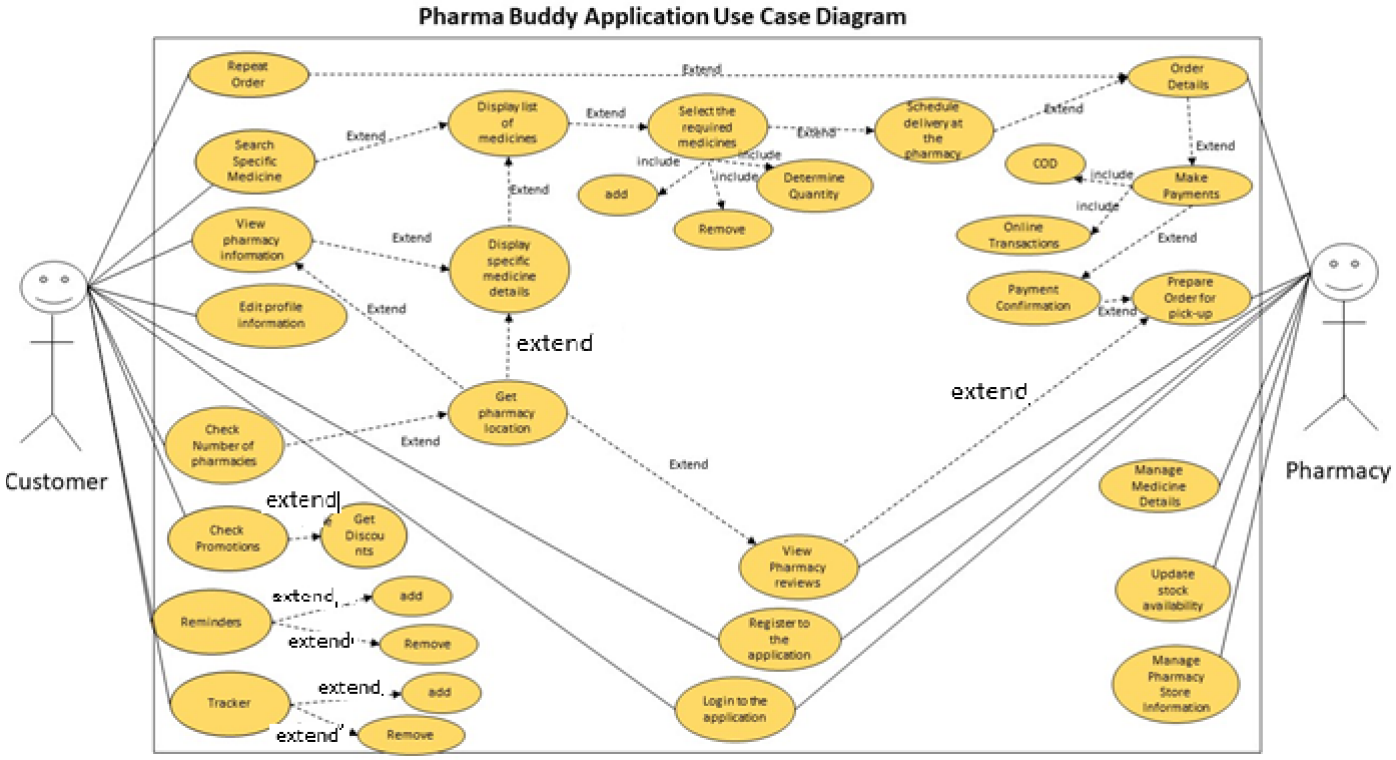
6. HIGH LEVEL WORK BREAKDOWN

Weekly Schedule	Tasks	Members Responsible
Week1 (08-23-22 to 08-29-22)	Exchanged contact details like email id and phone numbers	Divij, Swati, Varshini, Shreeja, Divya, Sony
Week2 (08-30-22 to 09-05-22)	Discussion on project idea and brainstorming – **PROJECT PROPOSAL**	Divij, Swati, Varshini, Shreeja, Divya, Sony
Week3 (09-06-22 to 09-12-22)	Initial project proposal and creating vision the statement; deciding on the target audience – **PROJECT VISION**	Varshini, Divij, Sony
Week4 (09-13-22 to 09-19-22)	Documenting the problem statement, business need, goals, objectives and scope -**PROJECT HIGH LEVEL WBS**	Divya, Shreeja
WEEK 5 (09-20-22 to 09-26-22)	PROJECT DEFINITION	Divij, Swati, Varshini, Shreeja, Divya, Sony
WEEK 6 (09-27-22 to 10-03-22)	PROJECT USE CASE DIAGRAMS AND ACTIVITY DIAGRAMS	Divij, Swati
WEEK 7&8 (10-04-22 to 10-10-22)	DOCUMENTING THE USE CASES & SYSTEM CONTEXT DIAGRAM	Varshini, Divij
WEEK 9 (10-11-22 to 10-17-22)	UML FUNDAMENTALS	Sony, Varshini
WEEK 10 (10-18-22 to 10-24-22)	BPMN SIMULATION	Divya, Swati
WEEK 11 (10-25-22 to 10-31-22)	CLASS DIAGRAMS AND DATA DICTIONARY IMPLEMENTATION	Shreeja, Sony
WEEK 12 (11-01-22 to 11-07-22)	DOCUMENTING FINAL PROJECT DRAFT AND PARTIAL IMPLEMENTATION	Swati, Divij

7. System Context Diagram:



8. USE CASE MODELLING:-



9. USE CASE DESCRIPTION:-

Use Case Description 1:

Use Case Name: REPEAT ORDERS
Primary Actor: CUSTOMER
Stakeholder: PHARMACY
Brief Description: CHECKS PAST ORDERS AND SUGGESTS NEW ORDERS
Trigger: CUSTOMER'S OLD MEDICINES FINISH ACCORDING TO THE QUANTITY GIVEN AND QUANTITY TO BE ADMINISTERED
Normal flow of events:

1. CUSTOMERS OLD RECORDS ARE CHECKED TO SEE HOW MANY MEDICINES ARE LEFT
2. AN ALERT IS SENT TO THE CUSTOMER TO CHECK FOR THE MEDICINES
3. THE CUSTOMER THEN CHECKS FOR THE MEDICINES AND ORDERS NEW MEDICINES
4. THE CUSTOMER IS THEN ASKED TO PROCESS THE PAYMENT

Use Case Description 2:

Use Case Name: SEARCH SPECIFIC ORDER
Primary Actor: CUSTOMER
Stakeholder: PHARMACY
Brief Description: SEARCH FOR MEDICINE FROM PHARMACY
Trigger: WHEN CUSTOMER LOGS IN AND SEARCHES FOR MEDICINE
Normal flow of events:

1. CUSTOMER LOGS INTO THE APP
2. THE CUSTOMER THEN ENTERS THE NAME OF THE MEDICINE TO BE ORDERED
3. LIST OF ALL POSSIBLE MEDICINE
4. MEDICINES AND PHARMACIES NEARBY IS SHOWN
5. THE MEDICINE IS THEN ADDED TO THE CART
6. DELIVERY OR PICKUP IS SCHEDULED

Use Case Description 3:

Use Case Name: CHECK PROMOTIONS
Primary Actor: CUSTOMER
Stakeholder: PHARMACY
Brief Description: PROMOTIONS/DISCOUNTS FOR ALL MEDICINES ARE SHOWN
Trigger: AFTER MULTIPLE ORDERS FROM THE CUSTOMER
Normal flow of events:

1. PAST ORDERS FROM THE CUSTOMER ARE SEEN
2. THE PROMOTIONS THAT THE PHARMACY OFFERS FOR THE MEDICINE ARE SHOWN
3. THE DISCOUNTS ARE ADDED TO THE CART

Use Case Description 4:

Use Case Name: VIEW PHARMACY INFORMATION
Primary Actor: CUSTOMER
Stakeholder: PHARMACY
Brief Description: THE REVIEWS AND OTHER INFORMATION ABOUT THE PHARMACY ARE SHOWN
Trigger: CUSTOMER CLICKS ON THE REVIEW PAGE OF PHARMACY
Normal flow of events:

1. THE CUSTOMER CLICKS ON THE PHARMACY REVIEW PAGE
2. THE REVIEWS ARE SHOWN FOR THE PHARMACY
3. THE DATA FOR THE PHARMACY IS SHOWN

Use Case Description 5:

Use Case Name: MAKE PAYMENTS
Primary Actor: CUSTOMER
Stakeholder: PHARMACY
Brief Description: PAYMENT FOR THE MEDICINE
Trigger: THE CUSTOMER ADDS MEDICINES TO THE CART AND SELECTS THE DELIVERY METHOD
Normal flow of events:

1. THE CUSTOMER IS ASKED FOR THE METHOD OF PAYMENT
2. THE PAYMENT GATEWAY IS OPENED ACCORDING TO THE REQUIREMENT AND THE PAYMENT IS MADE

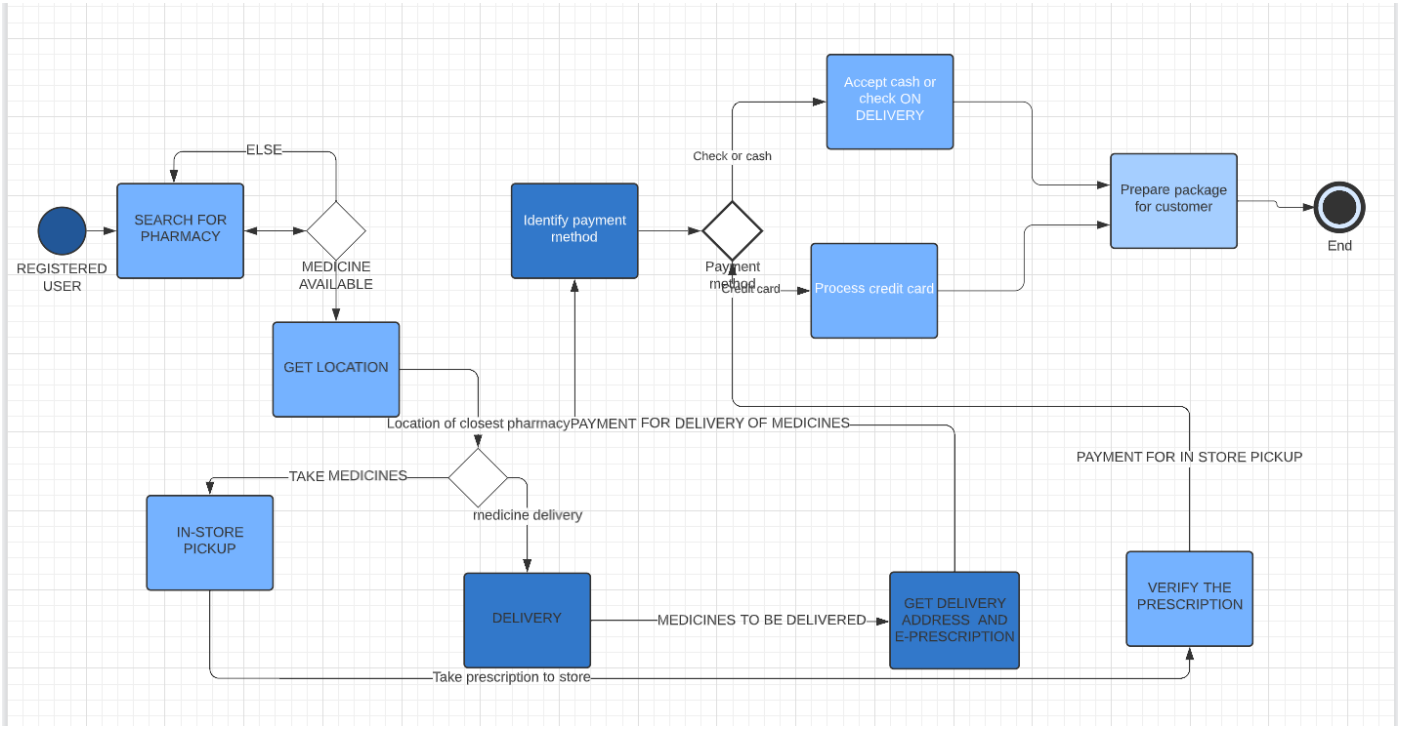
Use Case Description 6:

Use Case Name: SIGN UP
Primary Actor: CUSTOMER
Stakeholder: PHARMA BUDDY
Brief Description: WHEN A USER WANTS TO BECOME A MEMBER OF PHARMA BUDDY HE CAN SIGN-UP
Trigger: WHEN A USER CLICKS ON SIGNUP BUTTON
Normal flow of events:

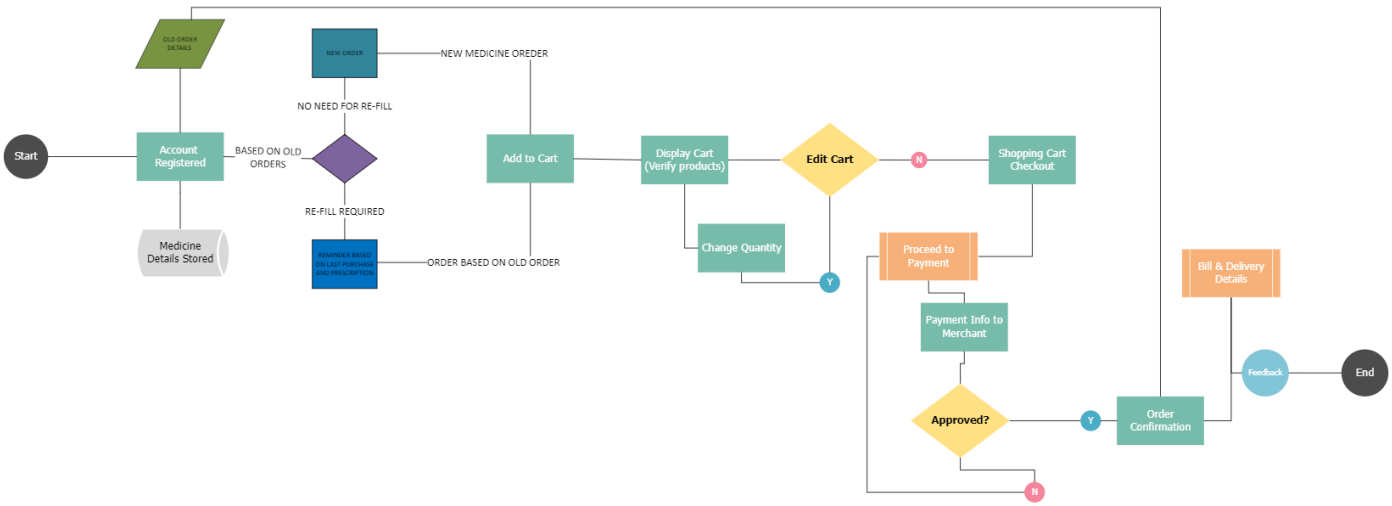
1. USER WILL BE ASKED TO LOGIN OR SIGN UP TO REGISTER AS A USER
2. USER INPUTS USER INFO WHICH INCLUDES FIRST NAME, LAST NAME, DATE OF BIRTH, HEALTH CONDITIONS, EMAIL ADDRESS PHONE NUMBER AND PASSWORD.
3. LATER THE USER WILL BE LOGGED IN AS A REGISTERED USER AND CAN ACCESS THE APP.
4. EXCEPTION: IF USER ENTERS INVALID DETAILS, THEN DISPLAY “SIGN-UP FAILED”

7. ACTIVITY DIAGRAM

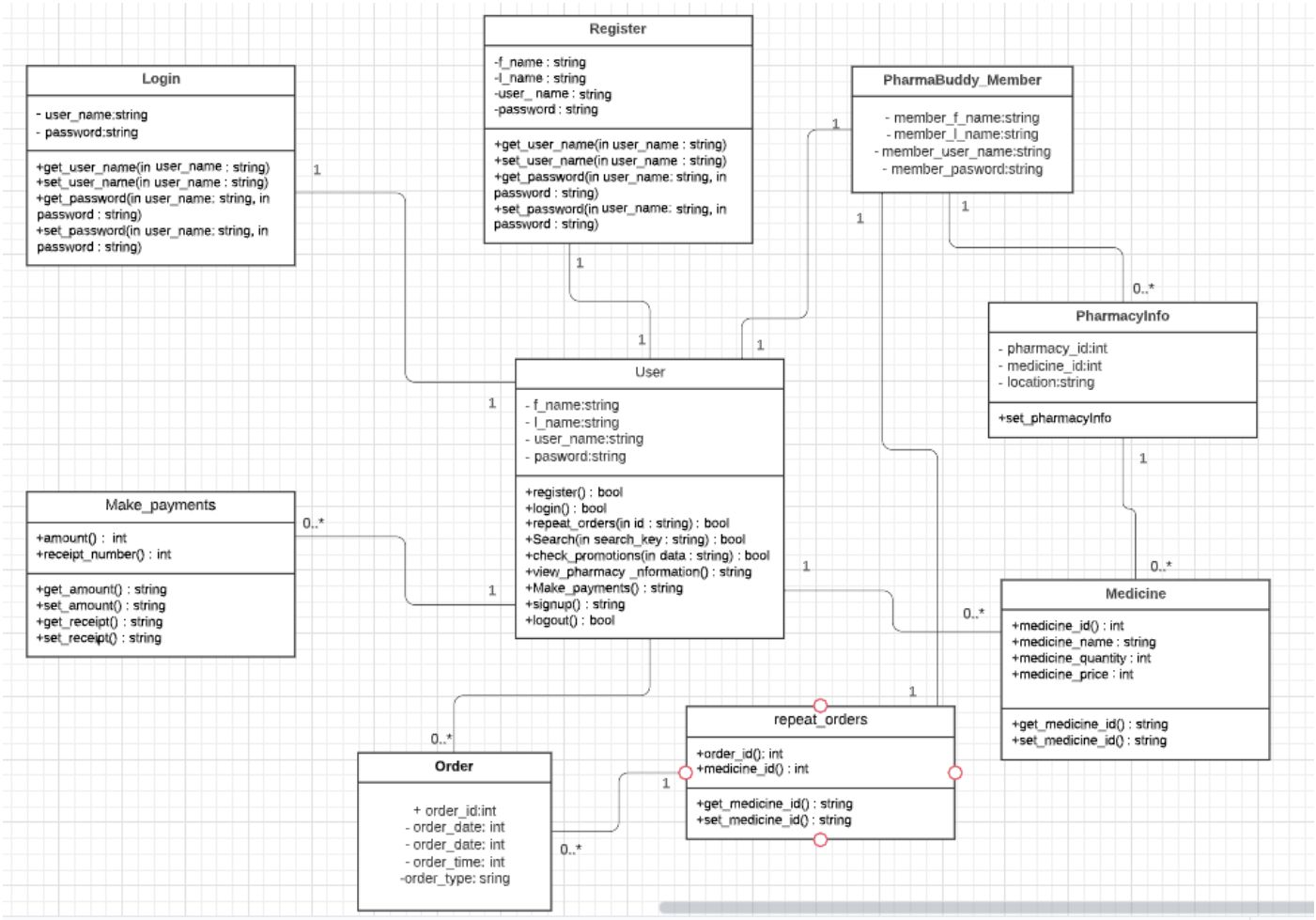
1. LOOK FOR PHARMACY AND GET MEDICINES



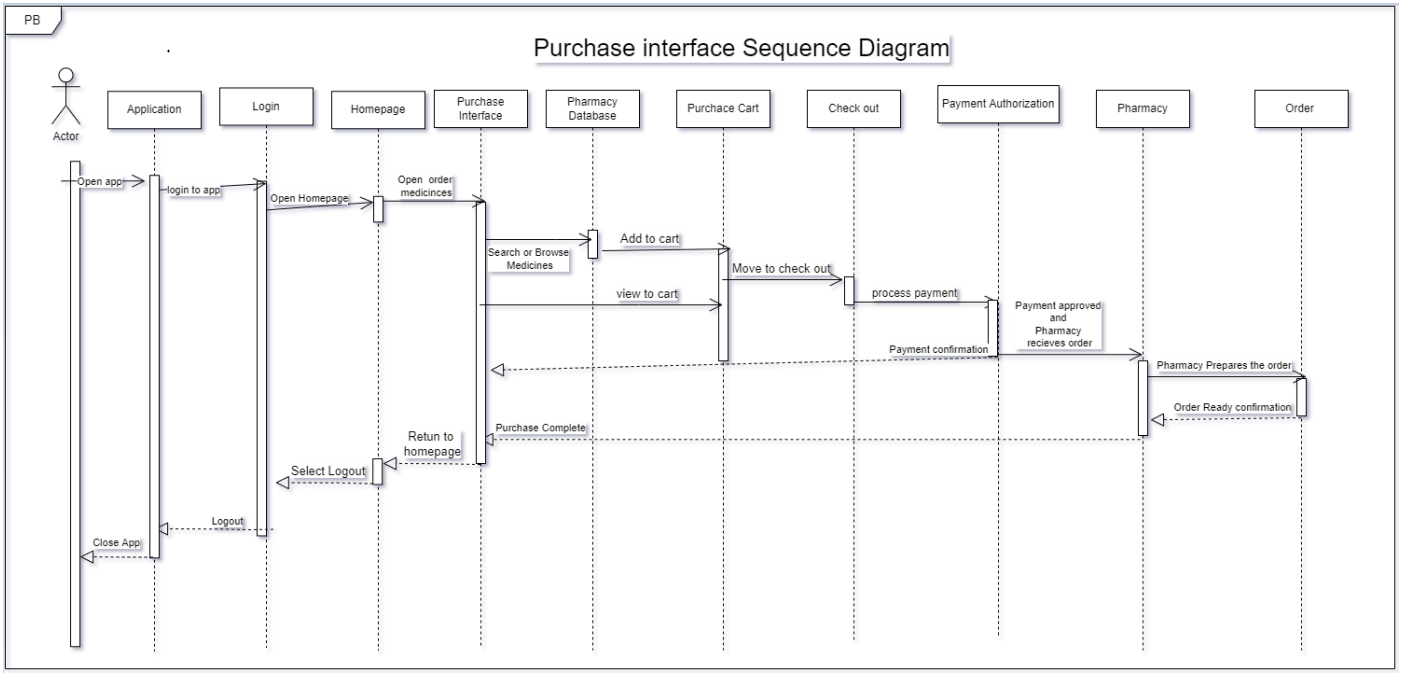
2. ORDER REMINDERS

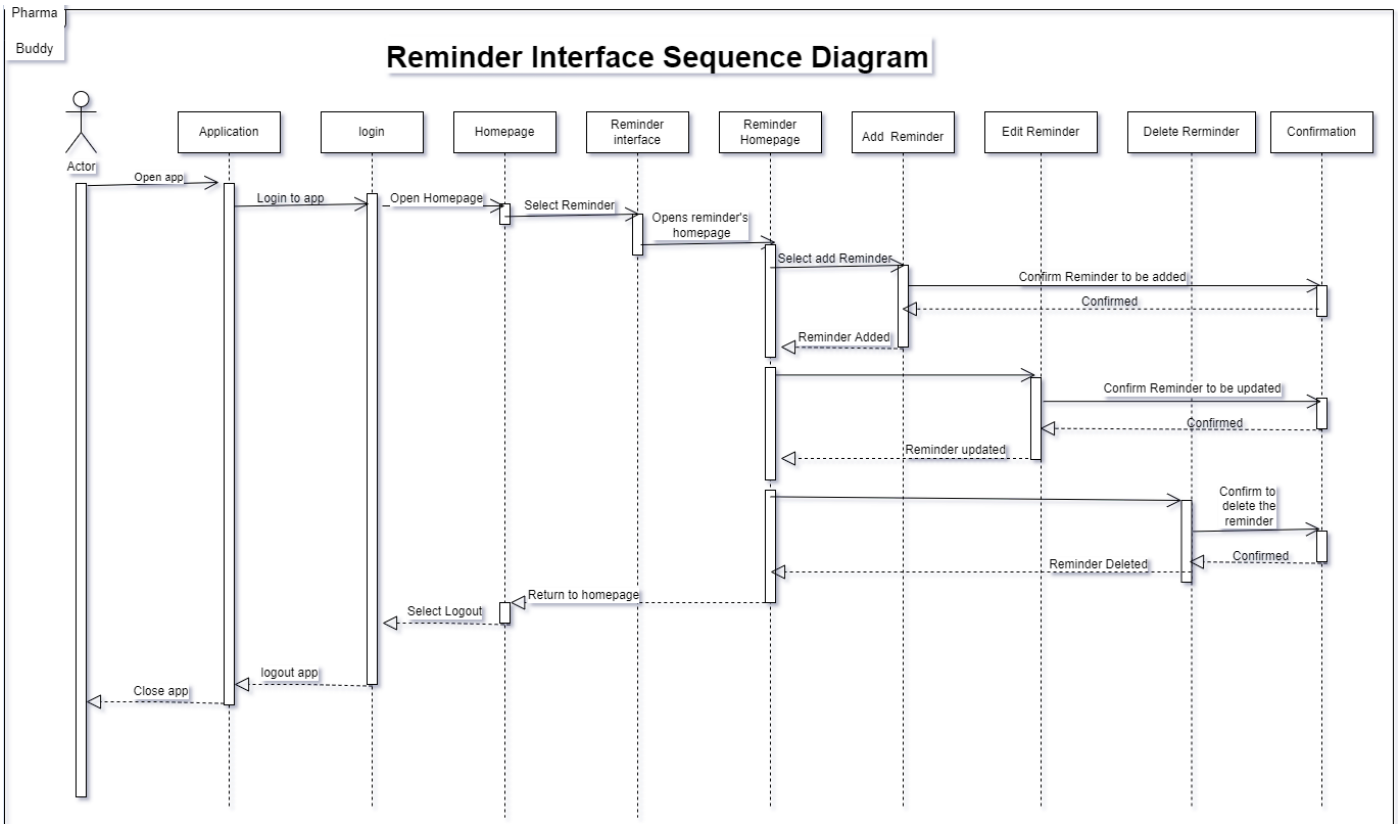


8. UML Class Diagram:

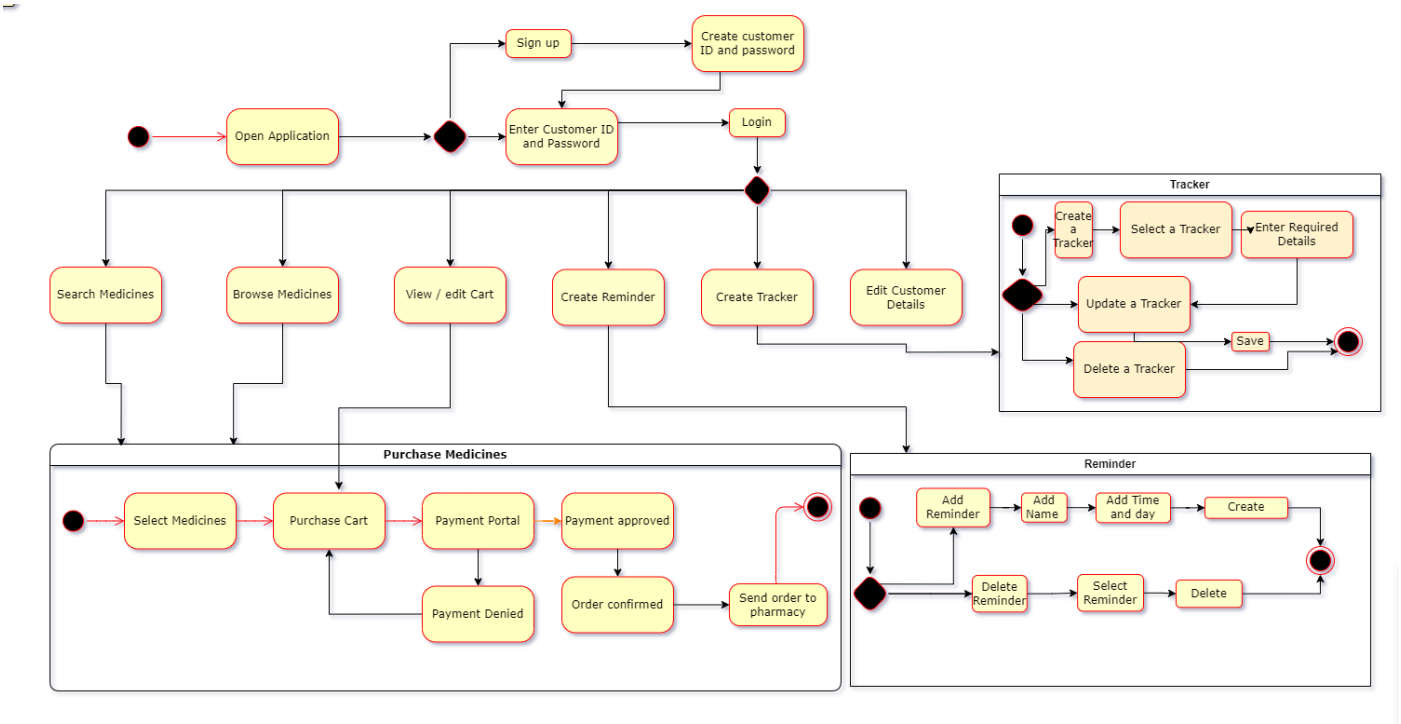


9. Internal Sequence Diagrams:

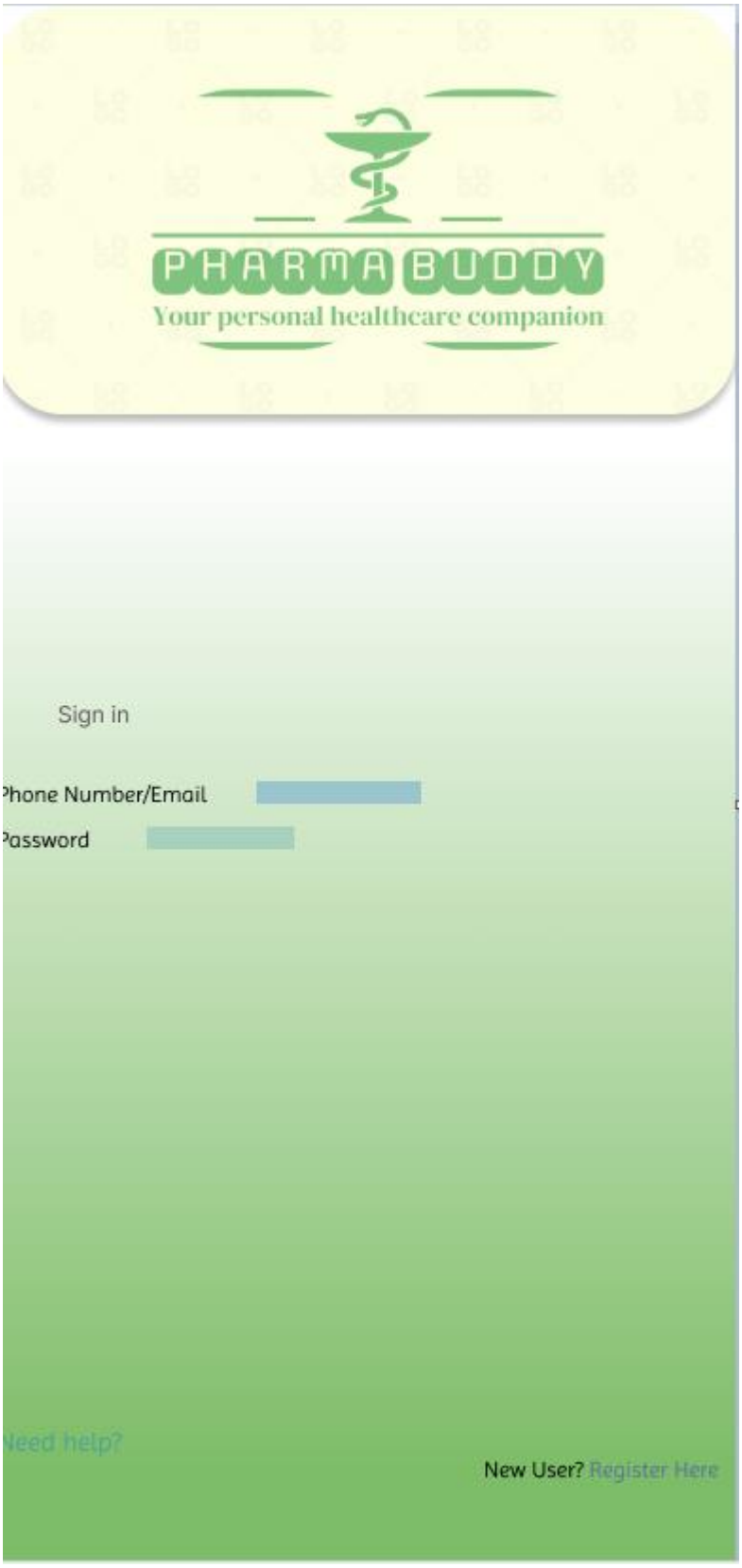




13.Object Behaviour Model:



14. User Interface Design:



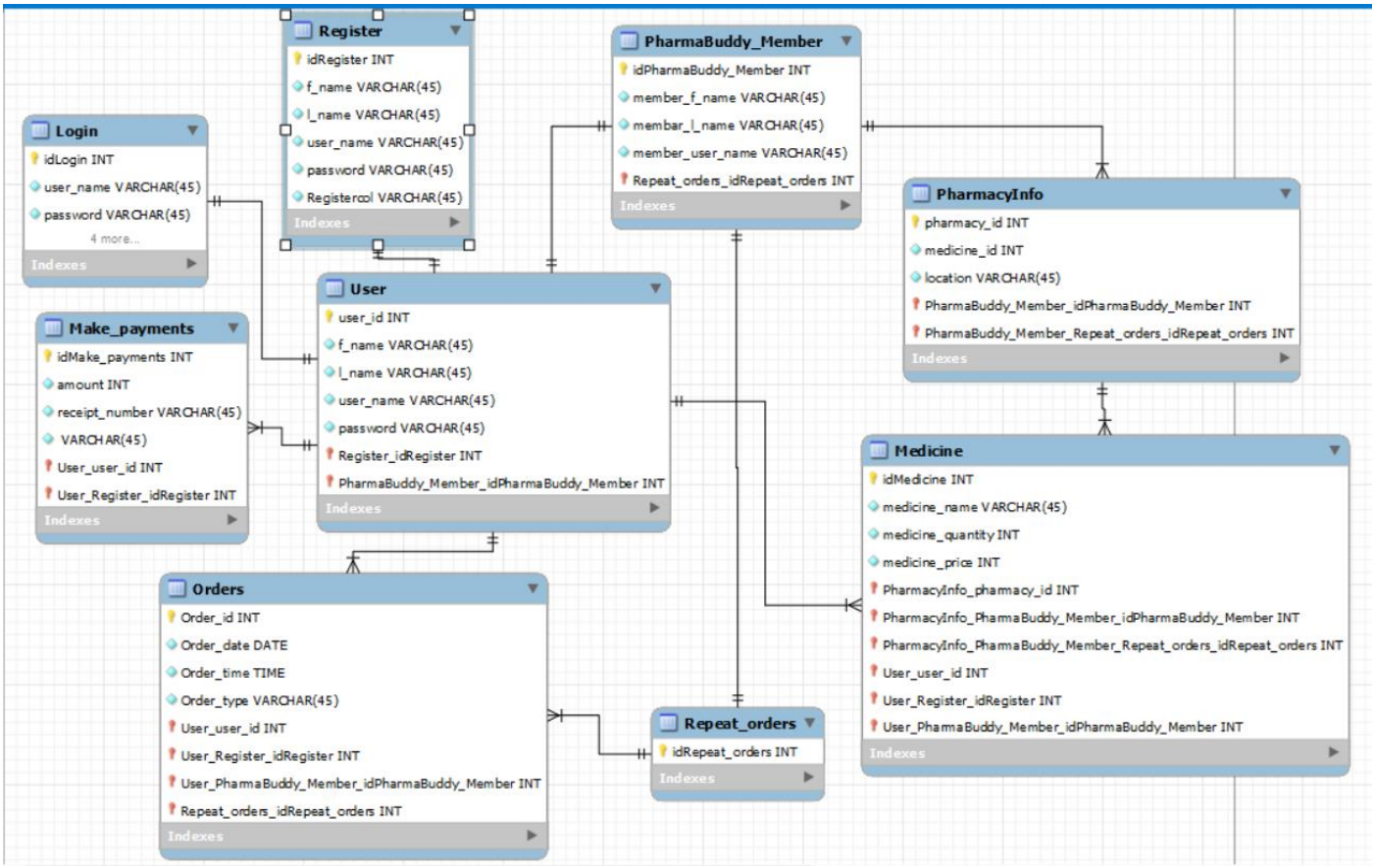
800 W Campbell Rd, Richardson, TX 75080

Search Medicine:

Pharmacies Near You:

S.No.	Name Of pharmacy	Address	Distance
1.	Pharmacy 1	1234, Abc rd.	0.2 miles
2.	Pharmacy 2	154, def rd.	0.41 miles
3.	Pharmacy 3	1221, ghy rd.	0.80 miles
4.	Pharmacy 4	6554, fra hwy.	1.8 miles

15. Database Design – ERD diagram:



16. Executive Summary:

The System analysis and project management project allowed us to gain insights on a number of industry tested and tried techniques and methodologies, for managing projects and analysing systems .
The project allowed us to research into the sector of healthcare and through this we were able to analyse the complexities of the American healthcare system and how it functions. We found that the people go to the hospital, get diagnosed and then they go home having no idea of how their healthcare system works, which is why they are in a constant state of confusion.
In order to present the project we developed a user friendly system that allowed users to enter in their details, gain access to an overview of their health, inform themselves about what is going on with them and get pertinent information on the medicines they need and the pharmacies that provide these medicines. The system is also user friendly so that it makes it easier for the patient to understand what is going on with their medicine needs.
It should be noted that although this project was very useful in gauging trends in American healthcare, there were a number of limitations to this study.
In order to complete this project, we utilised a variety of techniques and methods that were used in different sectors and departments. The techniques and methodologies included standard project management tools such as timelines, resources, documents and plans. We also used interviews with experts for initial findings along with causal analysis for any change of direction required during the course of the project due to external factors.
This was assisted by observations from secondary sources such as websites, books mentioned in the readings, online articles found through searching internet databases archives on library databases etc.
We designed and implemented a system to address the lack of information that patients have on their health. It was created in order to be user friendly and give users all the information and the deciding power for the price of the drugs that they need to make informed decisions.