



# National University

## Of Computer and Emerging Sciences

### Fundamental of Software Engineering

### Assignment 02: Project Deliverable 02

#### Instructor:

Ma'am Saba Kanwal

#### Members:

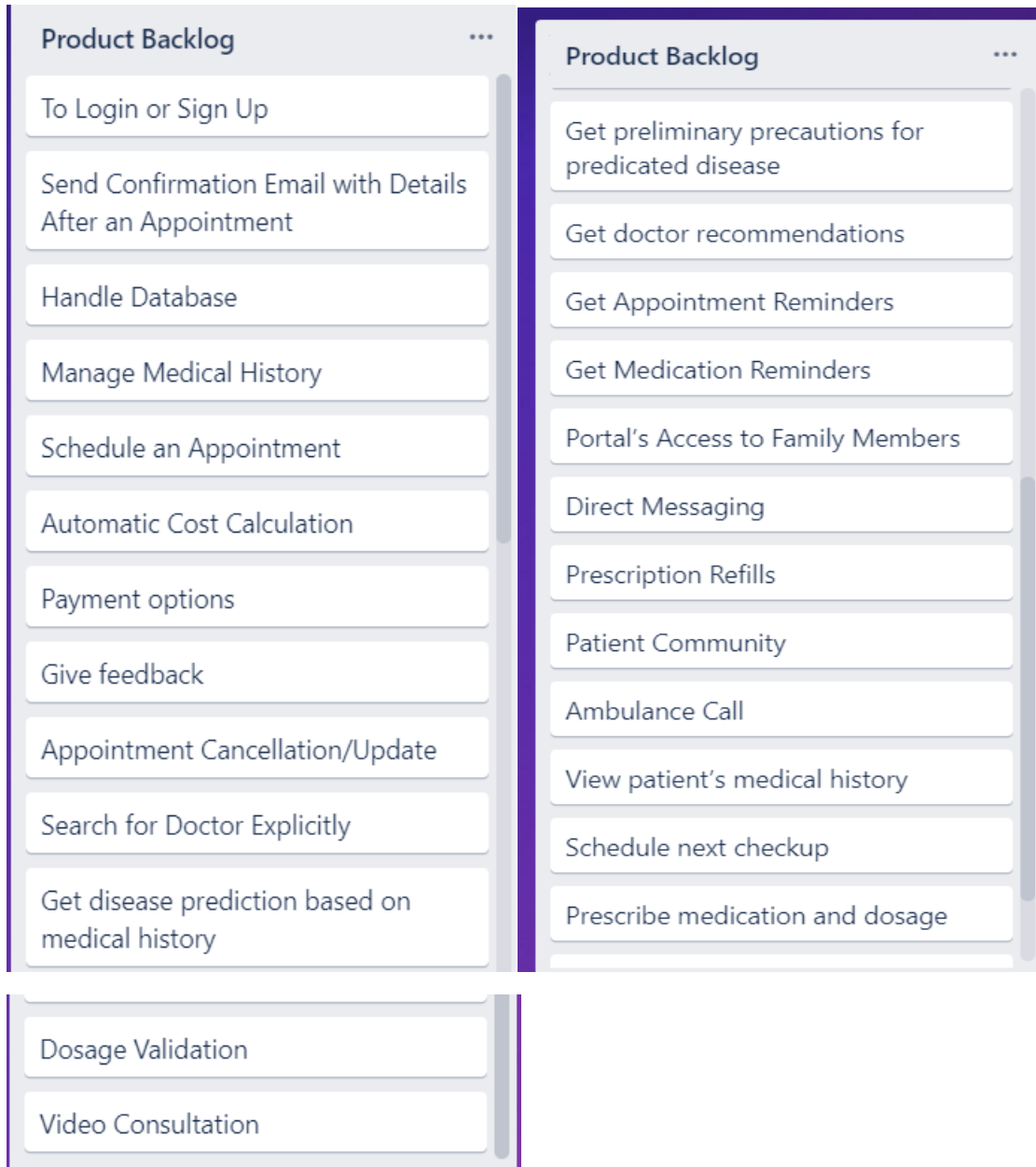
❖ Syeda Areeba Nadeem	21I-0307
❖ Moawiz bin Yamin	21I-0323
❖ Rameen Tariq	21-0306
❖ Jannat Butt	21I-0259

#### Section:

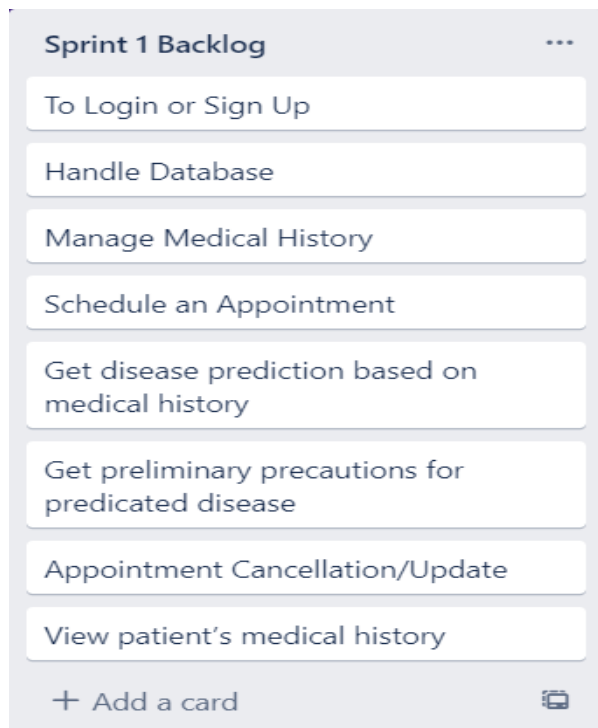
AI-K

**EFFICIENT DISEASE PREDICTION AND DOCTOR  
– PATIENT PORTAL  
BASED ON MEDICAL HISTORY**

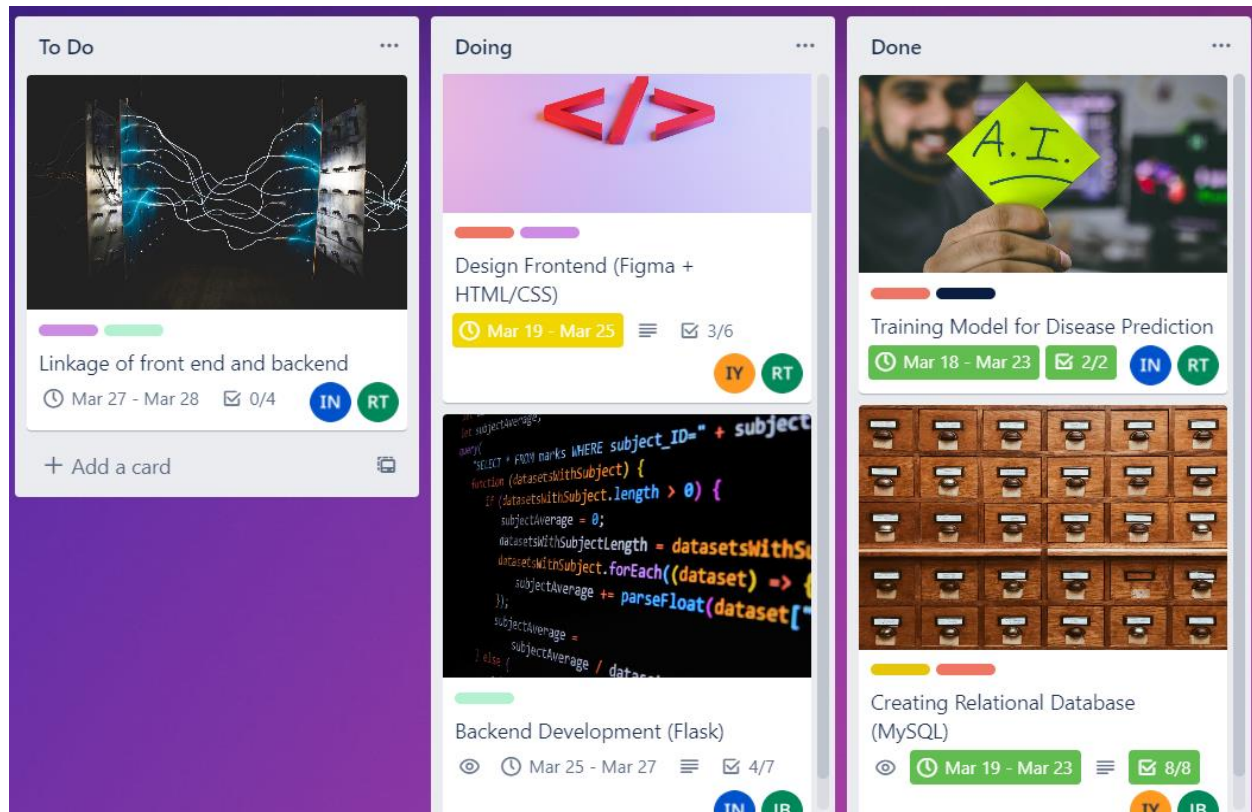
### **Snapshot-1 (Product Backlog):**



### **Snapshot-1 (Sprint 1 Backlog):**



### Snapshot-2 (Trello Board in mid of sprint):



☒ **Backend Tasks**

Hide checked itemsDelete

57%

☒ Receiving information for Login/Sign-Up form at backend
 ☒ Authenticate user when login
 ☒ Adding new user in Database when sign up is done by user
 ☒ Receiving symptoms from symptoms form and extracting features from it for prediction
 ☐ Deploying model
 ☐ Fetching record from Database to for medical history and appointments to display
 ☐ Appointment booking by receiving appointment details and storing them in Database

Add an item

☒ **DataBase Development**

Hide checked itemsDelete

100%

☒ SCHEMA DESIGN
 ☒ MEDICINE INFO
 ☒ DOCTOR INFO
 ☒ PATIENT INFO
 ☒ APPOINTMENT SCHEDULING INFO
 ☒ PATIENT HOSPITAL VISIT INFO
 ☒ PATIENT PURCHASE MEDICINE INFO
 ☒ HOSPITAL INFO

☒ **Front end pages**

Hide checked itemsDeleteShare

50%

☒ Login/Sign-In
 ☒ Registration/Sign-Up
 ☒ Home
 ☐ Appointments
 ☐ Medical History
 ☐ Disease symptoms form

Add an item

☒ **Disease Prediction Model**

Hide checked itemsDelete

100%

☒ Clean Dataset

☒ Train Model

Add an item

### Snapshot-3 (At the end of the sprint):

Doing

+ Add a card

Done

```
def get_subject_averages():
    query = """SELECT * FROM marks WHERE subject_ID = """ + subject_ID
    datasetsWithSubject = []
    for dataset in datasetsWithSubject:
        if dataset.length > 0:
            subjectAverage = 0
            datasetsWithSubjectLength = datasetsWithSubject.length
            datasetsWithSubject.forEach((dataset) => {
                subjectAverage += parseFloat(dataset[0])
            })
            subjectAverage = subjectAverage / datasetsWithSubjectLength
        } else {
            subjectAverage = 0
        }
    return subjectAverage
```

Backend Development (Flask)


Mar 25 - Mar 27

4/7

IN

JB


Design Frontend (Figma + HTML/CSS)



Training Model for Disease Prediction


🕒 Mar 18 - Mar 23 📧 2/2

IN RT



Creating Relational Database (MySQL)

Left over card from sprint 1



Linkage of front end and backend

🕒 Mar 27 - Mar 28 📧 0/4

IN RT

+ Add a card

☑ Backend Tasks

Hide checked items Delete Share

100%

- ☑ Receiving information for Login/Sign Up form at backend
- ☑ Authenticate user when login
- ☑ Adding new user in Database when sign up is done by user
- ☑ Receiving symptoms from symptoms form and extracting features from it for prediction
- ☑ Deploying model
- ☑ Fetching record from Database to for medical history and appointments to display
- ☑ Appointment booking by receiving appointment details and storing them in Database

Add an item

☒ **DataBase Development** Hide checked items Delete  
100% 

- ☒ SCHEMA-DESIGN
- ☒ MEDICINE-INFO
- ☒ DOCTOR-INFO
- ☒ PATIENT-INFO
- ☒ APPOINTMENT-SCHEDULING-INFO
- ☒ PATIENT-HOSPITAL-VISIT-INFO
- ☒ PATIENT-PURCHASE-MEDICINE-INFO
- ☒ HOSPITAL-INFO

☒ **Front end pages** Hide checked items Delete Share  
100% 

- ☒ Login/Sign-In
- ☒ Registration/Sign-Up
- ☒ Home
- ☒ Appointments
- ☒ Medical History
- ☒ Disease-symptoms-form

Add an item

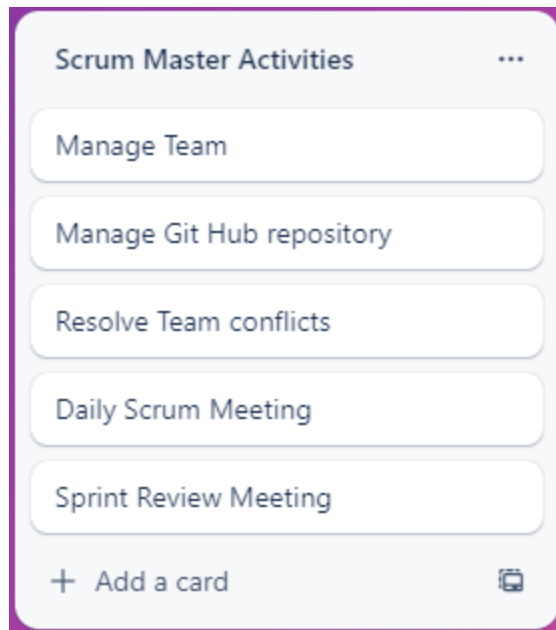
☒ **Disease Prediction Model** Hide checked items Delete  
100% 

- ☒ Clean-Dataset
- ☒ Train-Model

Add an item

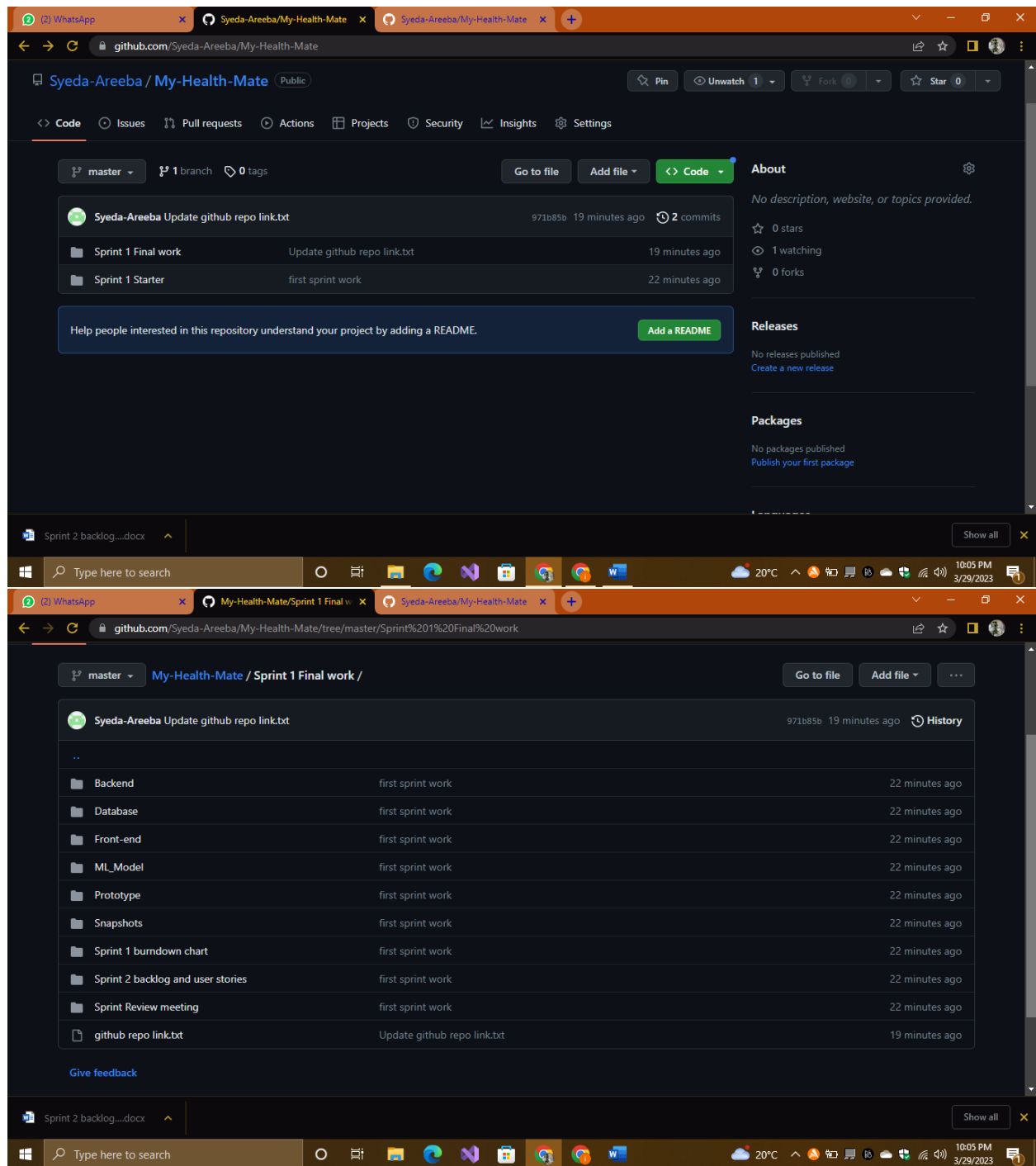
**Snapshot-4 (Scrum Master activities):**



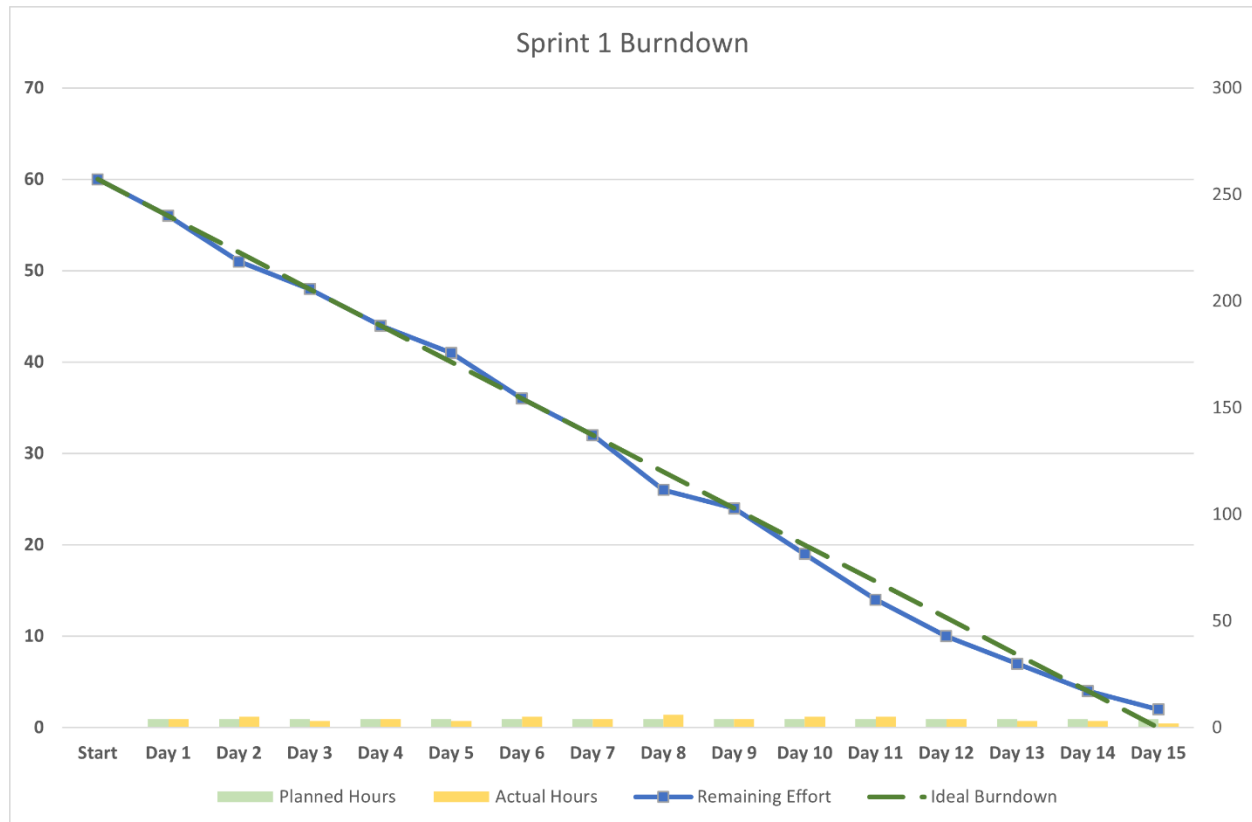


**GitHub repository link:**

<https://github.com/Syeda-Areeba/My-Health-Mate>



## Burn down Chart for sprint 1:



## Sprint 2 Backlog User stories

### Patient Module:

#### 1. Give Feedback:

As a patient I want to give the feedback on the services provided to facilitate me so that the managers can have a better understanding of my experience with the software and its facilities and can improve it, if needed, to provide more convenience to me.

#### 2. Automatic Cost Calculation:

As a patient I want my total cost to be calculated prior to my check up so that I can have a rough estimate of overall treatment and manage my budget.

#### 3. Search for Doctor Explicitly:

As a patient I want a system to provide me with the freedom of choosing a doctor of my own choice in addition to having suggestions for the doctors so that I am not bound to just system recommended doctors.

#### **4. Get Doctor Recommendation:**

As a patient I want doctor recommendations based on the predicted disease like which type of doctor or specialist is best suited to treat my condition so that I don't waste time while searching for the one and can readily book an appointment to start my treatment as soon as possible.

### **Doctor Module:**

#### **1. Prescribe Medication and Dosage:**

As a doctor I want to prescribe the appropriate medications along with their dosages to my patients so that their disease can be treated and the medications are stored in their portal and they don't have to carry paper prescriptions.

#### **2. Dosage Validation:**

As a doctor I want to have my prescribed dosage of medications to be checked by the system so that the patients don't receive extremely high or low dosages that can prove to be dangerous for their health.

### **Left Over Task from Sprint 1:**

#### **1. Front end & back-end Linkage:**

Some pages are left to be connected with Database at backend which will be done in next sprint.

Sprint 2 backlog

Give feedback


Search for Doctor Explicitly

Prescribe medication and dosage

Get doctor recommendations

Automatic Cost Calculation

Dosage Validation



Linkage of front end and backend

🕒 Mar 27 - Mar 28

📧 0/4

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RT

+ Add a card