

# CS3200 Final Project

## Team:

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## Problem statement - describe the problem that your project is trying to solve

This hospital is having issues tracking the prescriptions that the physicians are writing out and who they are assigned to. The patients are complaining that they never get their prescriptions and refills on time, or they are prescribed too much medication. Patients also forget when their last appointment was and who their appointment was with. Our project tries to link patients with their physician for each appointment and keep track of the medications prescribed.

## Solution statement - describe the solution you implemented to solve the problem

Our database and user interface allows a user to access a list of all the patients and physicians, as well as the appointment and prescriptions associated with them. A patient can view their previous appointments, which physician they met with, and the medications that were prescribed. This way they can keep track of the date of their prescription refill and of their previous appointment. Additionally, the physician now has a record of all the patients they met with, and all of the medications they prescribed them. The physician additionally has access to patient data like height, weight and date of birth, that could help with prescribing medications.

## User - describe the typical user(s) that would use your solution

A typical user would be a patient, physician, or possibly a secretary. A patient would be able to view their appointment history. Additionally, they could check the prescriptions their physician wrote out for them and the date of refill for each prescription. A physician would be able to track this same information for all of their patients. A secretary would be able to view the date of appointments for every physician so that they can help schedule future appointments without any conflict.

## Domain objects - describe at least two of the domain objects you implemented in your solution

The domain objects were “appointments” and “prescriptions”. These domain objects form a 1 to many relationship, where 1 appointment relates to multiple prescriptions. The appointment table reifies the relationship between physician and patient, which is a many to many relationship. One patient meets with one physician at

an appointment, where they are prescribed medicine. The appointments also contain information like when they were created/ updated in the system and the date of the actual appointment. The prescription table contains the medicine name and the date of refill. The medicine names are enumerated to six values "Adderall", "Fentanyl", "Lisinopril", "Melatonin", "Prednisone" and "Sublocade", as the possible medicines that the physician can prescribe.