PROJECT PLAN DOCUMENT

Project number	4
Project Title	Clinical Rostering
Document	Project Plan
Creation date	13/02/2023
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Client	CloudPhysician; Jitesh Sekar

BRIEF PROBLEM STATEMENT

Hospitals are an essential service running 24/7 and require an adequate number of nurses and physicians to ensure that the best care facilities are provided to all patients. However, it is difficult to provide an efficient and fair schedule for the same manually. The Clinical Rostering project is meant to deal with this problem. This project involves developing a web application which accepts data and constraints regarding the availability of all the nurses and physicians, analyzes the data and, with the help of various scheduling and fairness algorithms, provides the most optimized schedule for the end-users.

TEAM MEMBERS

1.   Md Faizal Karim
2.   Utsav Shekhar
3.   Nandini Maroo
4.   Anushka Jain

TEAM COMMUNICATION

The team meets up thrice a week (Mondays, Wednesdays, and Saturdays) to communicate about the progress that each member has made and make plans on how to proceed with the further goals. These meetings are held on Discord through voice calls and in person. Apart from this, we have client meets twice a week where we are given our goals for the coming sprint and our progress is discussed.

DEVELOPMENT ENVIRONMENT

Development Environment: VS Code

Framework: ReactJS, FastAPI, PostgreSQL, OptaPlanner

Programming Language: Python, Javascript

Collaboration Tools: VS Code Liveshare, GitLab

Other tools: Google Docs, Figma, Draw.io

MILESTONE SCHEDULE

Milestone	Due Date	Release	Deliverable
Map out the scope of the project and list down use cases	Jan 27, 2022	R1	Yes
Research about the requirements needed to proceed with the project and list out all the necessary tools	Feb 10, 2022	R1	No
Drafting the flowchart for the flow of the application	Feb 12, 2022	R1	No
Identifying hard and soft constraints	-	R1	No
Completing employee registration	-	R1	Yes
Creating page for default schedule input	-	R1	Yes
Taking constraint input	-	R1	Yes
Integrating constraints with OptaPlanner	-	R1	No

Release - 1	-	R1	Yes
Rendering generated schedule on the website	-	R2	Yes
Finalizing user authentication	-	R2	Yes
Rendering generated schedule on Google calendar	-	R2	Yes
Adding option for dynamic changes	-	R2	No
Release - 2	-	R2	Yes