Software Project Plan

for
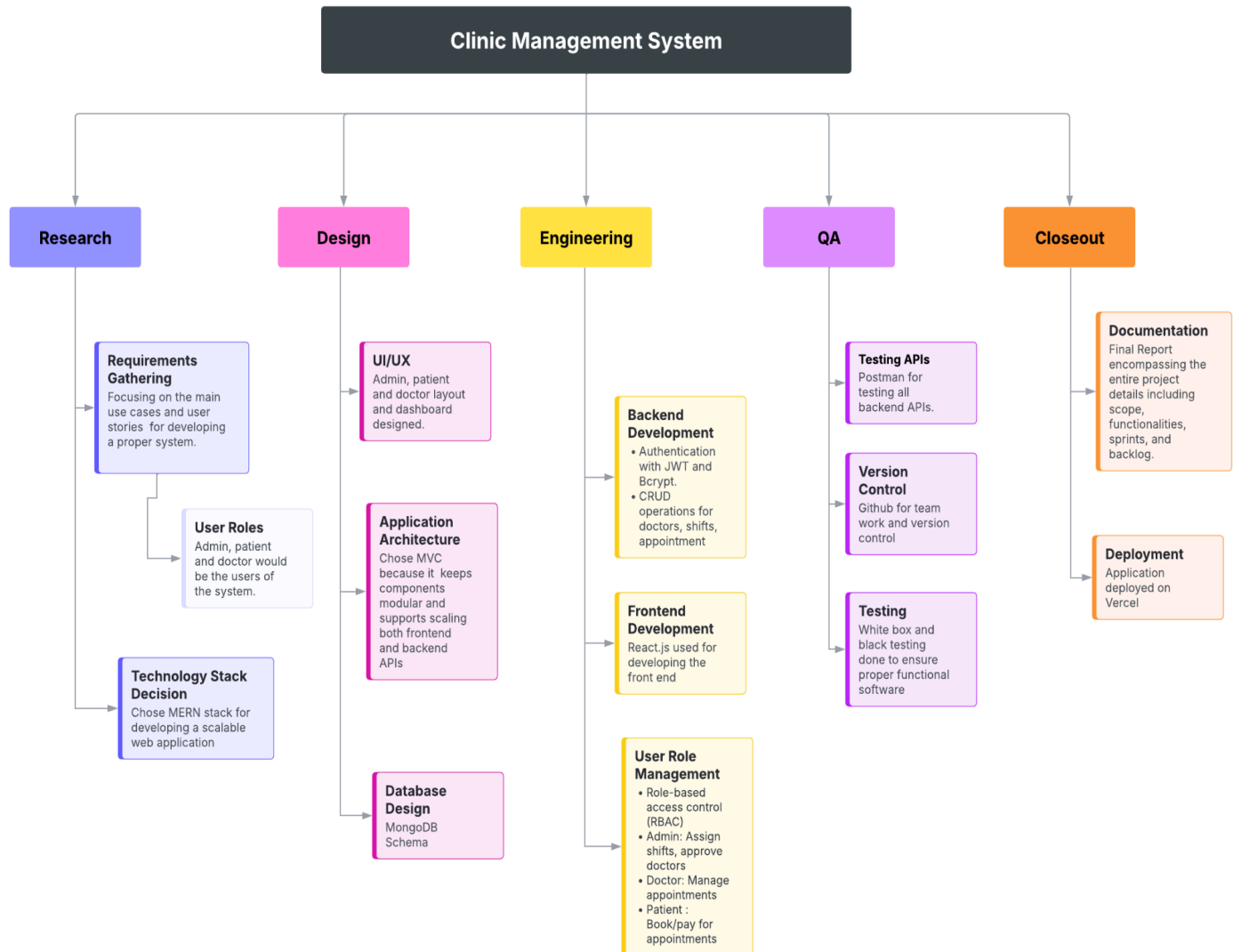
IKIGAI 2.O

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FAST - National University of Computer & Emerging Sciences

April 29th,2025

1) Work Breakdown Structure

Clinic Management System

Research

Requirements Gathering
Focusing on the main use cases and user stories for developing a proper system.

User Roles
Admin, patient and doctor would be the users of the system.

Technology Stack Decision
Chose MERN stack for developing a scalable web application

Design

UI/UX
Admin, patient and doctor layout and dashboard designed.

Application Architecture
Chose MVC because it keeps components modular and supports scaling both frontend and backend APIs

Database Design
MongoDB Schema

Engineering

Backend Development
- Authentication with JWT and Bcrypt.
- CRUD operations for doctors, shifts, appointment

Frontend Development
React.js used for developing the front end

User Role Management
- Role-based access control (RBAC)
- Admin: Assign shifts, approve doctors
- Doctor: Manage appointments
- Patient : Book/pay for appointments

QA

Testing APIs
Postman for testing all backend APIs.

Version Control
Github for team work and version control

Testing
White box and black testing done to ensure proper functional software

Closeout

Documentation
Final Report encompassing the entire project details including scope, functionalities, sprints, and backlog.

Deployment
Application deployed on Vercel

2) Gantt Chart

First Chart (MARCH 2025 – APRIL 2025)

Task	Assigned	Progress
SE Board		100%
▼ Product Backlog		0%
Task	Milestone	Group of Tasks
▼ Sprint 3 Backlog - (in progress)		0%
Task	Milestone	Group of Tasks
▼ In Progress (Current Sprint)		0%
Task	Milestone	Group of Tasks
▼ Current Sprint - Done		100%
(4) As an admin, I want to assign shifts to doct...	Maryum Tanvir	100%
(7) As a patient, I want to schedule an appoint...	Mavra Mehak	100%
(8) As a patient, I want to cancel an appointm...	Mavra Mehak	100%
(11) As a patient, I want to give feedback on m...	Mavra Mehak	100%
(12) As a doctor, I want to review feedback rel...	Salman Khan	100%
(14) As a patient, I want to reschedule an app...	Mavra Mehak	100%
(15) As a doctor, I want to update my appoint...	Salman Khan	100%
Task	Milestone	Group of Tasks
▼ Sprint 2 -Done		100%
Make DataBase	Maryum Tanvir, Mav...	100%
UI - Login/Register Pages	Salman Khan	100%
(2) As an admin, I want to approve doctors wit...	Maryum Tanvir	100%
(6) As a patient, I want to register in the syste...	Mavra Mehak	100%
(13) As a patient, I want to view my consultatio...	Mavra Mehak	100%
Task	Milestone	Group of Tasks
▼ Sprint 1 Done		100%
Make Basic Interface	Maryum Tanvir	100%
Make Product Backlog Doc	Mavra Mehak	100%
Make Sprint Backlog Doc	Mavra Mehak	100%
(1) As an admin, I want to update, or remove d...	Maryum Tanvir	100%
(3) As a doctor, I want to view my assigned sh...	Salman Khan	100%

Second Chart (MARCH 2025)

Task	Assigned	Progress
(6) As a patient, I want to register in the syste...	Mavra Mehak	100%
(13) As a patient, I want to view my consultatio...	Mavra Mehak	100%
Task	Milestone	Group of Tasks
▼ Sprint 1 Done		100%
Make Basic Interface	Maryum Tanvir	100%
Make Product Backlog Doc	Mavra Mehak	100%
Make Sprint Backlog Doc	Mavra Mehak	100%
(1) As an admin, I want to update, or remove d...	Maryum Tanvir	100%
(3) As a doctor, I want to view my assigned sh...	Salman Khan	100%
(5) As a patient, I want to view available docto...	Mavra Mehak	100%
(9) As a doctor, I want to view my upcoming a...	Salman Khan	100%
(10) As a patient, I want to view my past and u...	Mavra Mehak	100%
Task	Milestone	Group of Tasks
▼ Sprint 0 - Complete		100%
Trello and Github Account Setup		100%
Project Understanding	Maryum Tanvir, Mav...	100%
Creating User Stories	Maryum Tanvir, Mav...	100%
Make Use Case Diagram	Maryum Tanvir, Mav...	100%
Make Sequence Diagrams (3 Usecases)	Maryum Tanvir, Mav...	100%
Make Class Diagram	Maryum Tanvir, Mav...	100%
Make SRS Doc	Maryum Tanvir, Mav...	100%
Task	Milestone	Group of Tasks
▼ Meeting Backlog		100%
Daily Meeting (1)		100%
Daily Meeting (2)		100%
Daily Meeting (3)		100%
Daily Meeting (4)		100%
Daily Meeting (5)		100%
Daily Meeting (6)		100%
Task	Milestone	Group of Tasks