

Project Proposal

Project Title: MindConnect – Mental Health Support Platform

Objective

The purpose of this project is to build a full-stack web application aimed at supporting mental health through digital means. MindConnect allows users to track their emotional well-being, book therapy sessions, write daily journals, and access motivational content. It offers secure role-based access for users, therapists, and admins to manage sessions, content, and user activity. This project will apply key concepts from Advanced Java using Spring Boot, React, and PostgreSQL to create a socially impactful digital solution.

Main Features

1. 1. Backend Development (Spring Boot)
 - Entities: User, Therapist, Session, Journal, Motivation, Role
 - CRUD Operations via Spring Data JPA
 - Service Layer: Handles booking, journal updates, progress tracking
 - Controller Layer: RESTful APIs for frontend communication
 - Data Validation using annotations
2. 2. Frontend Development (React)
 - Responsive UI for users, therapists, and admins
 - Login/Signup forms with role-based dashboards
 - Forms for journal entries and session bookings
 - Pages for viewing therapist availability and motivational content
3. 3. Database Integration (PostgreSQL)
 - Tables: Users, Sessions, Journals, Motivations, Roles
 - Linked via Spring Boot backend using Spring Data JPA
 - Secure and persistent data storage
4. 4. Authentication and Authorization

- User login and role-based access using Spring Security
- Roles:
 - Admin: Manage users, therapists, and content
 - Therapist: Manage sessions and view user progress
 - User: Book sessions, write journals, and access motivational content

Tools & Technologies

- Backend: Java, Spring Boot, Spring Data JPA, Spring Security
- Frontend: React.js, HTML, CSS, Axios
- Database: PostgreSQL
- Other Tools: Postman (API testing), GitHub (version control)

Expected Outcomes

- A secure, interactive platform for mental health support
- Tools for users to self-reflect and connect with therapists
- A resource for mental wellness that blends tech with social impact

Timeline

- Week 1: Proposal approval, backend project setup
- Week 2: Develop backend services and database integration
- Week 3: Build frontend pages and connect to APIs
- Week 4: Implement auth, testing, and final adjustments