REQUIREMENTS DOCUMENTATION

INFOSYS EMERGENCY AND MENTAL WELL BEING PROJECT

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SUMMARY:

The "Emergency and Mental Well-Being" application is a full-stack platform designed to provide immediate support and resources for individuals experiencing mental health crises or seeking mental well-being services. It connects users to a network of mental health professionals, offers tools for self-assessment, and provides educational resources to promote mental well-being. The platform enables users to access support, monitor personal progress, and access emergency contact options quickly.

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1. Scope of the Project:

1. 1 User Features:

- **Registration and Login:** Secure user registration and authentication.
- **Self-Assessment Tools:** Access to tools for evaluating mental health status.
- **Resource Library:** A database of resources such as articles, videos, and exercises.
- **Emergency Support:** Quick-access features to reach mental health professionals or emergency contacts.

1.2 Professional Features:

- **Professional Registration:** A portal for mental health professionals to register and offer their services.
- **Appointment Management:** Scheduling and managing sessions with users.
- **Resource Contribution:** Professionals can add resources and tools to the platform.

1.3 System Features:

Analytics and Reporting: Tracks user engagement and common mental health needs.

1.4 **Personalized Suggestions**: Recommends resources based on user activity and assessments.

2. Functional Requirements:

2.1 User Functional Requirements:

- **Registration and Login:** Users can create an account, log in, and manage profiles securely.
- **Self-Assessment Tools:** Users can access questionnaires and tools for mental health self-assessment.
- **Resource Access:** Users can search and browse mental health resources.
- **Emergency Contact Options:** Quick links to emergency contacts or nearby support centers.
- **Progress Tracking:** Users can monitor their mental well-being journey and track improvements**.**

2.2 Professional Functional Requirements

- **Registration**: Mental health professionals can register and provide qualifications.
- **Session Management:** Manage appointment requests, session notes, and follow-up reminders.
- **Resource Contribution:** Add resources for the community, such as articles, exercises, and videos.

3. Non-Functional Requirements

• **Performance**: Ensure smooth performance during high-traffic periods, especially in emergency situations.

• **Scalability**: The platform should be scalable to accommodate a growing number of users and professionals.

• **Security**: Strong encryption for user data, HIPAA compliance, and secure access control for mental health professionals.

• **Reliability**: High availability with minimal downtime, especially during emergencies.

• **Usability**: A user-friendly interface that makes navigation easy, particularly for users in distress.

• **Maintainability**: The platform should be modular, allowing for regular updates and maintenance.

4. Tech Stack Used:

Frontend:
React JS: To provide a dynamic and responsive interface for users and professionals.

Backend:
Spring Boot: For scalable and efficient backend services, handling user requests and data processing.

Database:
MongoDB/MySQL: For storing user data, resources, and session information securely.

Microservices:
User Management: Manages user registration, authentication, and profile management.

Professional Management: Handles professional registrations and service offerings.

Resource Management: Manages mental health resources available on the platform.

Emergency Support: Microservice dedicated to emergency features and real-time support connections.

5. User Stories:

Sprint 1 (Days 1–10): User Account Setup and Emergency Assistance Access

i. User Registration and Verification

Story: As a new user, I need to create an account with email verification to securely access my profile and features.

Acceptance Criteria: User registration includes email and password setup, along with a confirmation email to verify the account.

ii. Login/Logout for Account Security

Story: As a registered user, I need to log in and log out to protect my information and control access.

Acceptance Criteria: User authentication allows secure login/logout with error handling for invalid credentials.

iii. Quick Access to Emergency Contacts

Story: As a user, I want immediate access to emergency contacts so I can quickly reach out for urgent help.

Acceptance Criteria: Emergency contact details are displayed prominently on the home screen with one-click call functionality.

iv. Access to Mental Health Resources

Story: As a user, I want to browse basic mental health resources upon logging in for initial guidance and support.

Acceptance Criteria: User dashboard provides a list of curated mental health resources, including articles, helplines, and general information.

v. Role-Based Access for Users and Professionals

Story: As a developer, I need to implement role-based access for users and mental health professionals to control access to platform features.

Acceptance Criteria: Roles (user/professional) are set up and tested to limit resource access based on user type.

Sprint 2 (Days 11–20): Self-Assessment and Resource Personalization

i. Self-Assessment for Mental Health Status

Story: As a user, I want to complete a self-assessment questionnaire to gauge my current mental well-being.

Acceptance Criteria: Self-assessment form records user responses for personalized analysis and recommendations.

ii. Resource Suggestions Based on Self-Assessment

Story: As a user, I want personalized resource recommendations after completing a self-assessment to find the right support.

Acceptance Criteria: Resources are suggested based on self-assessment data, tailored to the user's needs.

iii. Professional Registration and Qualification Display

Story: As a mental health professional, I need to register with my credentials so users can see my qualifications.

Acceptance Criteria: Professional registration includes a section to add qualifications, viewable to users for credibility.

iv. Library of Categorized Mental Health Resources

Story: As a user, I want to explore a categorized library of resources, such as videos, articles, and exercises, for targeted support.

Acceptance Criteria: Resources are organized by categories, with filters for easier browsing.

v. Bookmarking for Easy Access to Resources

Story: As a user, I want to bookmark resources for quick reference later.

Acceptance Criteria: Users can bookmark resources, accessible from a "Saved" section on their dashboard.

Sprint 3 (Days 21–30): Appointments and Personalized Dashboard

i. Appointment Scheduling with Professionals

Story: As a user, I want to schedule sessions with mental health professionals for one-on-one support.

Acceptance Criteria: Users can view available times and book sessions with professionals.

ii. Professional Session Management

Story: As a professional, I want to manage my availability so users can book appointments according to my schedule.

Acceptance Criteria: Professionals can set their availability, view, and manage upcoming sessions.

iii.User Dashboard for Tracking Progress

Story: As a user, I want a dashboard to track my appointments, accessed resources, and self-assessment history to monitor my progress.

Acceptance Criteria: Dashboard displays past sessions, accessed resources, and self-assessment summaries.

iv. Progress Tracking Through Self-Assessment Results

Story: As a user, I want to track my improvement over time through my self-assessment results and recommendations.

Acceptance Criteria: Users can view a timeline or summary of their assessments, showing changes in mental well-being status.

v. Admin Analytics on Engagement and Usage

Story: As an admin, I need insights into user engagement and resource utilization to enhance platform offerings.

Acceptance Criteria: Admins can view aggregated metrics on user engagement, resource usage, and self-assessment participation.

Additional Considerations

Testing: *Unit and integration tests are implemented at the end of each sprint to validate feature functionality and fix potential issues.*

Deployment: *Aim for a soft launch at the end of the 30-day period to gather initial user feedback, focusing on core functionality.*

6. Database Design:

1. Users Table

- user_id
- username
- email
- password_hash
- role
- created_at.
- updated_at

2. Professionals Table

- professional_id (integer)
- user_id (integer)
- qualifications (text)
- specialties (text)
- availability_status (boolean)
- created_at (timestamp)

3. Resources Table

- resource_id (integer)
- title (varchar)
- description (text)
- category (varchar)
- url (varchar)
- created_by (integer)
- created_at (timestamp)
- updated_at (timestamp)

4. SelfAssessments Table

- assessment_id (integer)
- user_id (integer)
- questions (text)
- responses (text)
- assessment_date (timestamp)
- result (text)

5. Appointments Table

- appointment_id (integer)
- user_id (integer)
- professional_id (integer)
- appointment_date (datetime)
- status (varchar)
- notes (text)
- created_at (timestamp)

6. EmergencyContacts Table

- contact_id (integer)
- user_id (integer)
- contact_name (varchar)
- contact_number (varchar)
- relationship (varchar)
- is_primary (boolean)

7. Bookmarks Table

- bookmark_id (integer)
- user_id (integer)
- resource_id (integer)
- bookmarked_at (timestamp)

8. ProgressTracking Table

- tracking_id (integer)
- user_id (integer)
- assessment_id (integer)
- appointment_id (integer)
- progress_note (text)
- progress_date (timestamp)

9. Analytics Table

- analytics_id (integer)
- metric_name (varchar)
- metric_value (integer)
- calculated_at (timestamp)

10. Audit Logs Table

- log_id (integer)
- user_id (integer)
- action (varchar)
- timestamp (timestamp)
- details (text)