# **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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7. **Scope of the Project:**
8. **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. **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. **System Features:**

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

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

1. **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.

1. **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.

1. **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.

1. **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 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.*

1. **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)

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