

# Requirements Specification for Depression Therapy Platform

**Project Acronym:** PSY

**Project Title:** PsyCura - Depression Therapy Platform

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# **1. Introduction**

## **1.1 Purpose**

Our project is Depression Therapy and Control. This project facilitates the use of an efficient platform for patients to seek professional help and associate with like-minded individuals. The project comprises a web application that will act as an intermediary between doctors and patients. The primary purpose of the app is to be able to host professional patient-doctor interactions along with the associated features such as recording prescriptions, executing transactions, generating and updating progress reports etc. The app also provides professional group therapy sessions where patients can join certain groups/forums regulated by experienced sponsors. The project aims to be a well-equipped platform for several sections of the medical society.

## **1.2 Project Scope**

This project addresses global mental health issues in an innovative way. However, the project is just an intermediary between the entities and does not, by itself, provide any kind of solution to the patients. It aids in the smooth and efficient interaction of the patient with the doctor, through the various features provided such as appointment booking, prescription recording, safe and secure transactions, and easy online group therapy sessions.

# **2. System Description**

## **2.1 Problem Description/Statement**

Many mental health issues go undiagnosed and such situations are dangerous. Detecting mental health issues is also not a very easy task as many people hide any such kind of demeanor that can be taken as a social cue for people to figure out that something is wrong. To address this issue we need a service that would allow mental health patients to seek professional help by themselves, not relying on any relative/friend. Moreover, the easier the means to reach out, the better. Apart from this, we need a means to facilitate the recovery of the patient through professional sessions.

## **2.2 Solution**

We have come up with a web application that allows patients to make contact with the professional mental health community. Once a patient has created an account and has

logged in on our platform, he/she can look for doctors/psychologists of their liking, as per their situation. Once they decide on this, they can book an appointment through the web app. Once an appointment has been scheduled, the patient will be notified on an interaction session with the doctor.

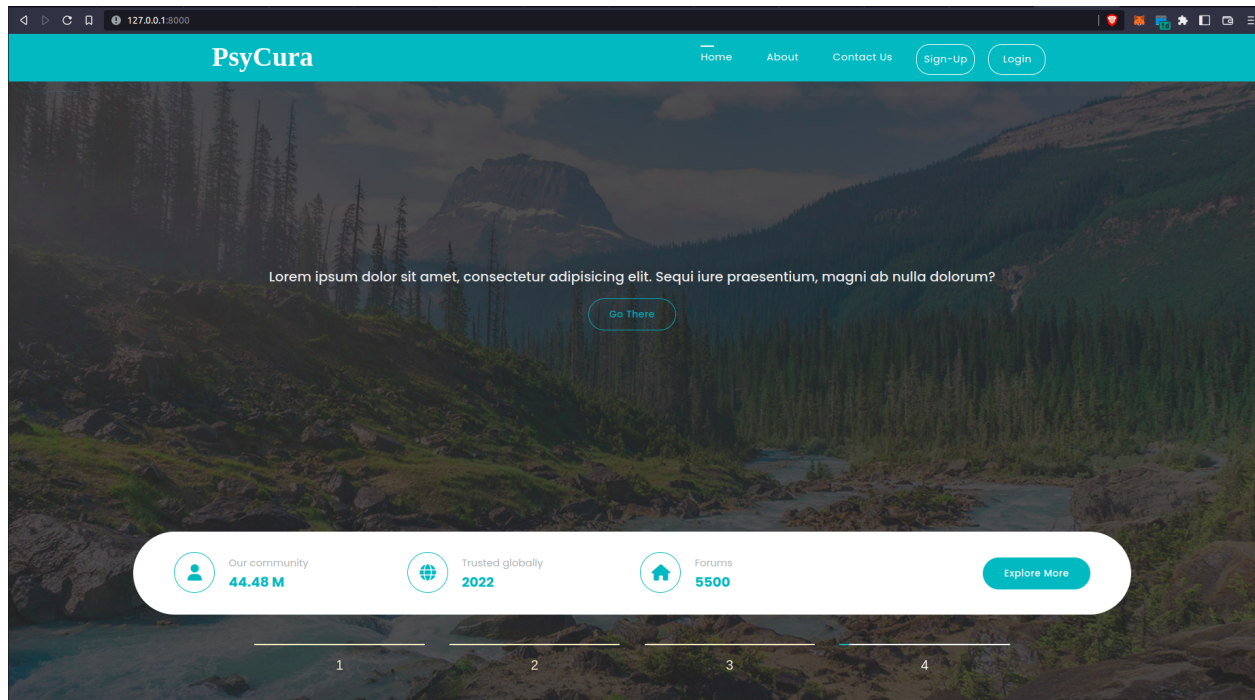
The interaction session can be held online through video call. Our platform provides features for doctors to get complete data of the patient concerned. Apart from this the doctor can record prescriptions and recommend group therapy sessions on the platform. On the other hand, the patient is capable of keeping in touch with his/her doctor even after the session in case he/she has any kind of additional queries. The patients can keep track of their progress reports after a session or after every group therapy session.

This platform also handles group therapy sessions. Sponsors can register on our platform under a particular forum. A forum is an organization that conducts group therapy(GT) sessions. Sponsors can keep track of the proceedings of their forum, schedule GT sessions, give feedback to each patient under them, all through our app. Sponsors can also accept members into their forum or reject them. Group therapy sessions can also be held online on our platform.

The overall functioning of the platform will be handled by the admin. The admin can add any member of the platform(doctor, patient or sponsor) to the platform or not. The admin handles the allocation of doctors and sponsors to patients. The admin handles the booking of appointments.

Additionally, the app will have a feature where patients can interact with like minded individuals to facilitate quicker recovery.

# Homepage:



## 3. Functional Requirements

### 3.1 API

1. Video Call API
2. In-app chat API
3. Money Transfer API
4. Calendar API
5. Forum API
6. Whiteboard API

### 3.2 Common Requirements for all entities

1. **Login/Sign-up:** Personal details(Name,age,gender,Address,Phone,Email) and other necessary information must be provided on registration.

The image shows a web browser window with the URL "127.0.0.1:3000/p-sign-up/". The page has a teal header with the "PsyCura" logo and navigation links for "Home", "About", "Contact Us", "Sign-Up", and "Login". The main content area is a white sign-up form titled "Sign up to PsyCura through this Form". The form contains the following fields: "First Name\*" (placeholder: Ex. John), "Last Name\*" (placeholder: Ex. Capaldi), "Date of Birth\*" (placeholder: dd/mm/yyyy), "Phone Number\*" (placeholder: Ex. +xxx xxx xxx), "Email ID\*" (placeholder: Ex. abcd@efgh.com), "Gender\*" (dropdown menu with "Male" selected), "Add Medical File" (text input), "Username\*" (placeholder: Enter username), "Password\*" (placeholder: Enter your password), and "Confirm Password\*" (placeholder: Enter your password).

**2. Dashboard:** To display the details of the entity and associated details:

**a. Patient**

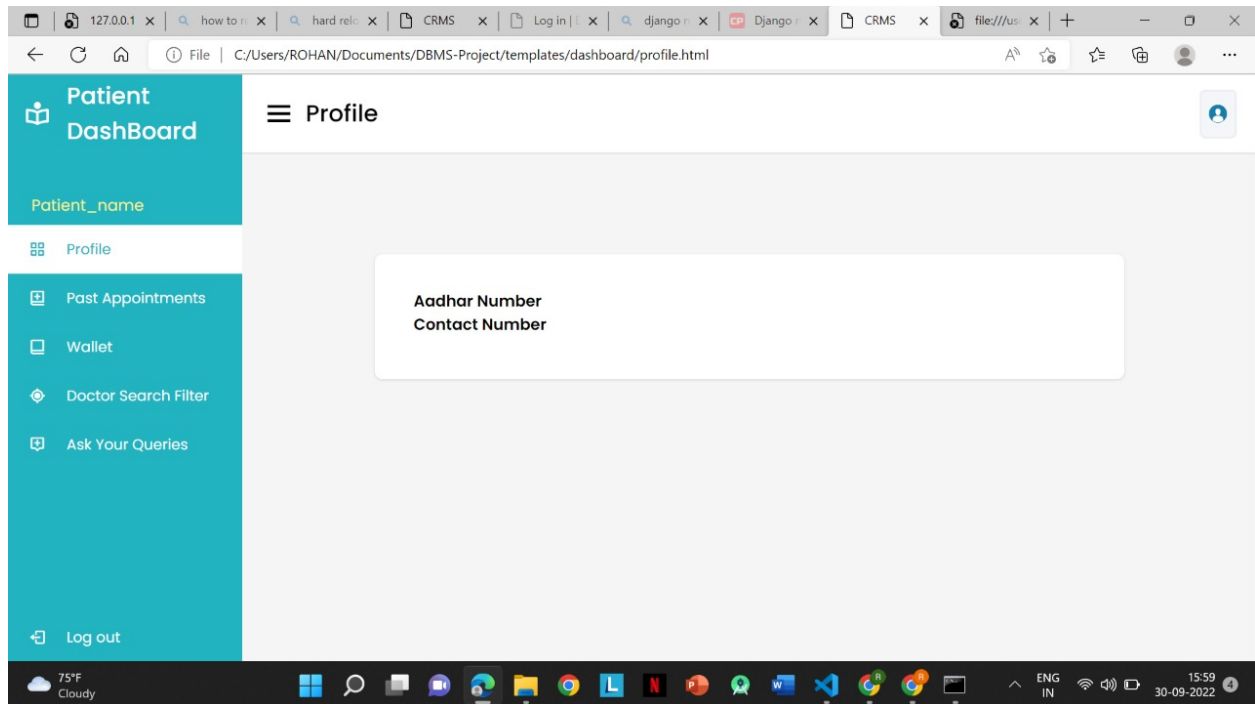
- i. Progress Report:** Keeps track of progress of patients in recovery from the illness, integrating feedback from multiple GT sessions, and one-to-one sessions.
- ii. Prescriptions:** Prescriptions specified along with the appointment\_no., date of appointment.
- iii. Forum Details:** Details of the Forum of which the patient is a member. Details include Sponsor, List of Patients, GT Schedules.

**b. Doctor**

- i. List of Appointments:** Along with the schedules and patient details (name, age, gender, medical record, phone, email, address)

**c. Sponsor**

- i. Forum Details:** (Similar to patient)
- ii. Patient Details:** For each patient in the forum



3. **Update Details feature:** For updating personal details being displayed on the dashboard.

### 3.3 Patient Requirements

1. **Symptom Description Box:** For patients to enter their symptoms. This information is considered confidential and is only used to suggest appropriate doctors.
2. **Doctor Search Filter:** Feature to filter doctors based on experience, location of practice, speciality, Language of communication, Fee
3. **Appointment booking/Cancellation:** To book an appointment with a selected doctor as per convenient and available time slot.
4. **Patient Notification:** Through phone/mail about the scheduled appointment, new membership of forums.
5. **Q&A Section:** For patient to be in touch with the doctor/Sponsor
6. **Payment Section:** For the patient to make payment to the doctor. The patient can optionally add money to a wallet and hence automate such transactions.
7. **Chat feature:** For the patient to interact with other people in the mental health community who might be facing similar problems.

### 3.4 Doctor Requirements

1. **Record Prescriptions:** Along with appointment\_no, and date.
2. **Patient's medical Report retrieval:** Feature to fetch complete medical Report of the patient.
3. **Accept, Reject and Cancel Appointments**
4. **Retrieve Transactions:** Accept Payment from patient/patient's wallet
5. **Patient Search Filter:** For searching past patients based on name, age, gender, ailment, date of appointment(s)

### 3.5 Sponsor Requirements

1. **Feedback form/Session Report:** To provide feedback on a particular session/patient in a session.
2. **Approve/Disapprove a patient into a forum**
3. **Search Past session Reports**

### 3.6 Admin Requirements

1. **Approve/Disapprove patient/Doctor/Sponsor onto the platform.**
2. **Schedule Appointments:** As per availability of doctors.
3. **Add patient to forum:** Feature to add patient to forum as recommended by the doctor.
4. **Regulate Chat activity:** To make sure no unethical activities take place.

## 4. External Interface Requirements

### 1. External Entity Data Collection and Storage

Patients, Doctors, Sponsors enter personal details during registration into the platform. This data is taken and stored in the backend, and retrieved from this centralized database as and when required.

### 2. User end-system compatibility

Each user must have the appropriate hardware for the web application(For example, camera and microphone, writing tab and pen if doctors wish to explain something diagrammatically or write prescriptions by hand.)

### 3. Video Call Interface

For one-to-one interactions between doctors and patients and for GT sessions.

### 4. Money Transfer Interface

The web application should interface with a Money transfer API



## 5. Non-Functional Requirements

### 1. Security

- a. Integrity Constraints on databases:** The patient data is highly confidential, and hence requires integrity constraints such that only doctors and sponsors can access it.
- b. Secure Payment:** Money transfer must be carried out securely
- c. Chat Encryption:** The API handling chats must ensure data encryption

### 2. Scalability

The web application caters to any part of the society where decent network connection and an appropriate device is available. We wish to make the application global so that any patient can choose any doctor from all over the world for his/her treatment.

### 3. Maintenance

As we proceed further with this project, it is possible that the various users might demand for new features. The web application thus would need constant monitoring and updation if required (provided by the developers)