FORM 2

THE PATENTS ACT, 1970

(39 of 1970)

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THE PATENTS RULES, 2003

COMPLETE SPECIFICATION

1. TITLE OF THE INVENTION

Designing an app for screening the possible mental health issues in adolescents and PwDs.

2. ABSTRACT

This invention introduces a mobile application to address mental health challenges, particularly for adolescents. It aims to provide accessible mental health screening and support by overcoming barriers such as stigma and limited access to professionals. The app leverages **Virtual Reality (VR) Exposure Therapy** to help users manage anxieties in a controlled environment and employs **Machine Learning (ML) algorithms** to analyze user data and provide personalized mental health recommendations. Additionally, **advanced chatrooms and chatbots** offer real-time support and foster a sense of community among users.

Designed to be inclusive, the app features customizable settings and a user-friendly interface to accommodate users with diverse abilities. It is compatible with multiple devices, including smartphones, tablets, and VR headsets, ensuring wide accessibility.

By integrating VR, ML, and digital communication tools, the app offers a holistic, scalable approach to mental health care, delivering evidence-based interventions tailored to individual needs. This invention aims to revolutionize mental health support, making it more accessible, effective, and inclusive, particularly for vulnerable populations.

3. APPLICANT(S):

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3. PREAMBLE TO DESCRIPTION

COMPLETE SPECIFICATION - The following specification particularly describes the invention and the manner in which it is to be performed.

Field of the Invention

The present invention relates to the field of mental health care, specifically to a technological solution for mental health screening and support. This invention involves the development of an application that utilizes advanced technologies such as Virtual Reality (VR) Exposure Therapy, Machine Learning (ML), and interactive chat rooms to provide comprehensive mental health services, particularly aimed at adolescents and Persons with Disabilities (PwDs).

Background of the Invention

Mental health issues are a growing global concern, affecting individuals of all ages and backgrounds. According to the World Health Organization (WHO), approximately one in four people will experience mental health conditions at some point in their lives. Despite the widespread prevalence of these conditions, access to adequate mental health care remains limited. Several barriers, including stigma, discrimination, and a shortage of mental health professionals, hinder individuals from seeking help, particularly in low-resource settings.

Adolescents and PwDs face unique challenges regarding mental health care access. Stigma and misconceptions surrounding mental health often prevent individuals from seeking necessary support, and existing mental health services may not adequately address their specific needs. Additionally, traditional mental health care models often rely on in-person consultations, which can be difficult for those in remote areas or those with mobility challenges.

To address these challenges, the present invention aims to provide an innovative solution through the development of a mental health app. This app is designed to be a versatile platform that offers evidence-based interventions, such as VR Exposure Therapy for anxiety and phobias, ML-driven mood predictions, and community support via advanced chatrooms. The app's features are tailored to meet the unique needs of adolescents and PwDs, offering accessible and inclusive mental health care.

Summary of the Invention

The invention introduces a comprehensive mental health application that leverages cutting-edge technologies to provide personalized care and support. The app incorporates Virtual Reality (VR) Exposure Therapy, enabling users to confront their fears in a controlled environment, reducing anxiety and improving mental well-being. Machine Learning (ML) algorithms analyze user interactions to predict moods and suggest personalized lifestyle changes. The app also features advanced chat rooms and chatbots that offer real-time assistance, fostering a supportive community environment.

By combining these technologies, the app aims to revolutionize mental health care delivery, making it more accessible, effective, and inclusive. It is designed to address the mental health needs of vulnerable populations, including adolescents and PwDs, providing them with the tools and resources to manage their mental health proactively.

Objectives of the Invention

The primary objective of the invention is to develop an accessible and user-friendly application that supports individuals dealing with mental health issues such as phobias, anxiety (including stage fright), and related conditions. The app aims to bridge the gap in mental health care by providing:

Virtual Reality (VR) Exposure Therapy: To help users confront and manage their anxieties in a safe, controlled environment.
Machine Learning (ML) Mood Predictions: To analyze data and provide personalized mental health recommendations.
Advanced Chat Rooms and Chatbots: To offer community support and real-time assistance.

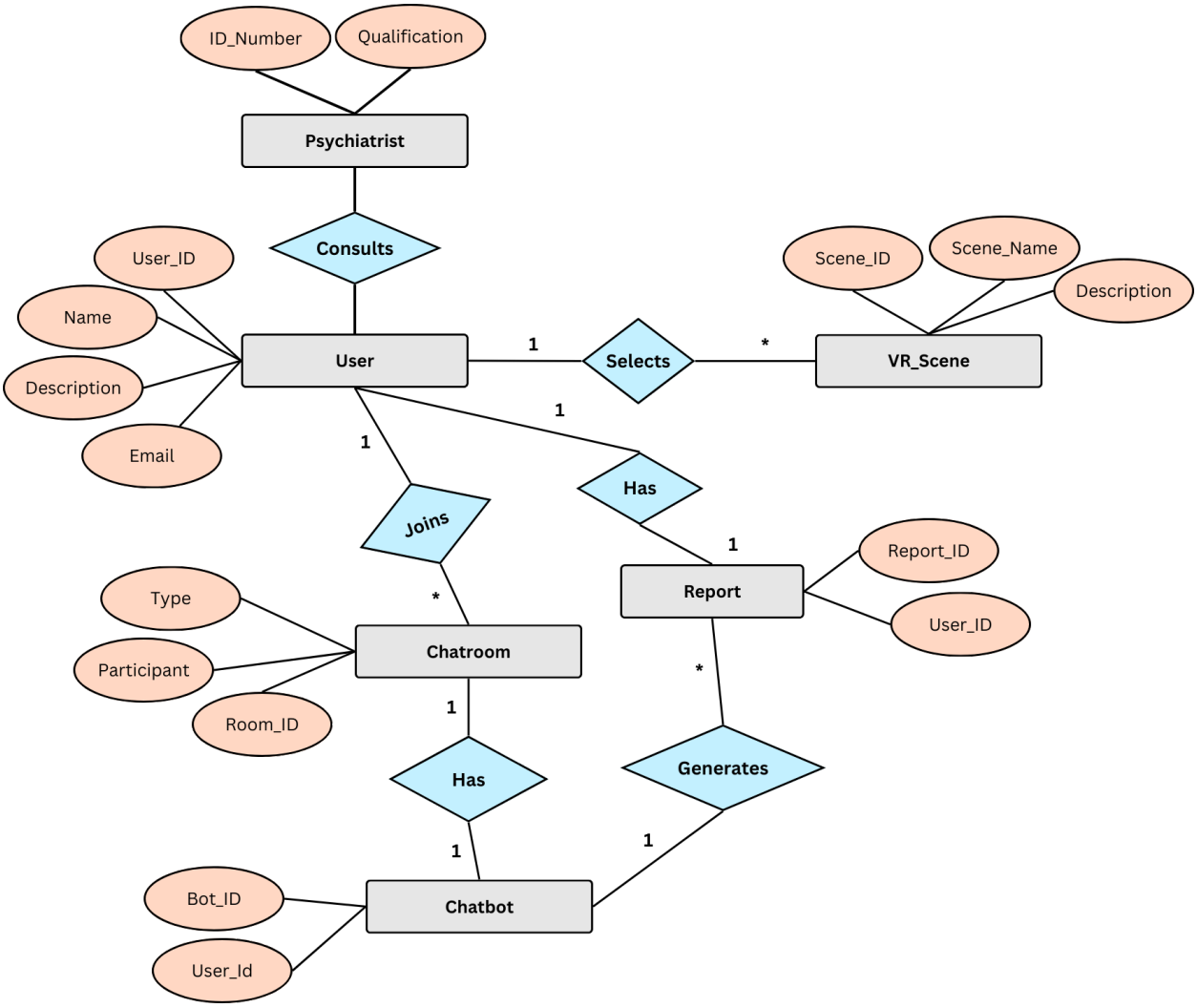
Scope of the Invention

The invention is designed to be inclusive, accessible, and adaptable to various user needs, ensuring compatibility across multiple devices, including smartphones, tablets, and VR headsets. The app complies with accessibility standards and data protection regulations, prioritizing user privacy and security. It is scalable to accommodate future technological advancements and user feedback, ensuring long-term viability and relevance.

The following description provides a detailed overview of the invention, including its technological components, functionalities, and methods employed to deliver an effective mental health care solution.

4.Drawings

ER-DIAGRAMS



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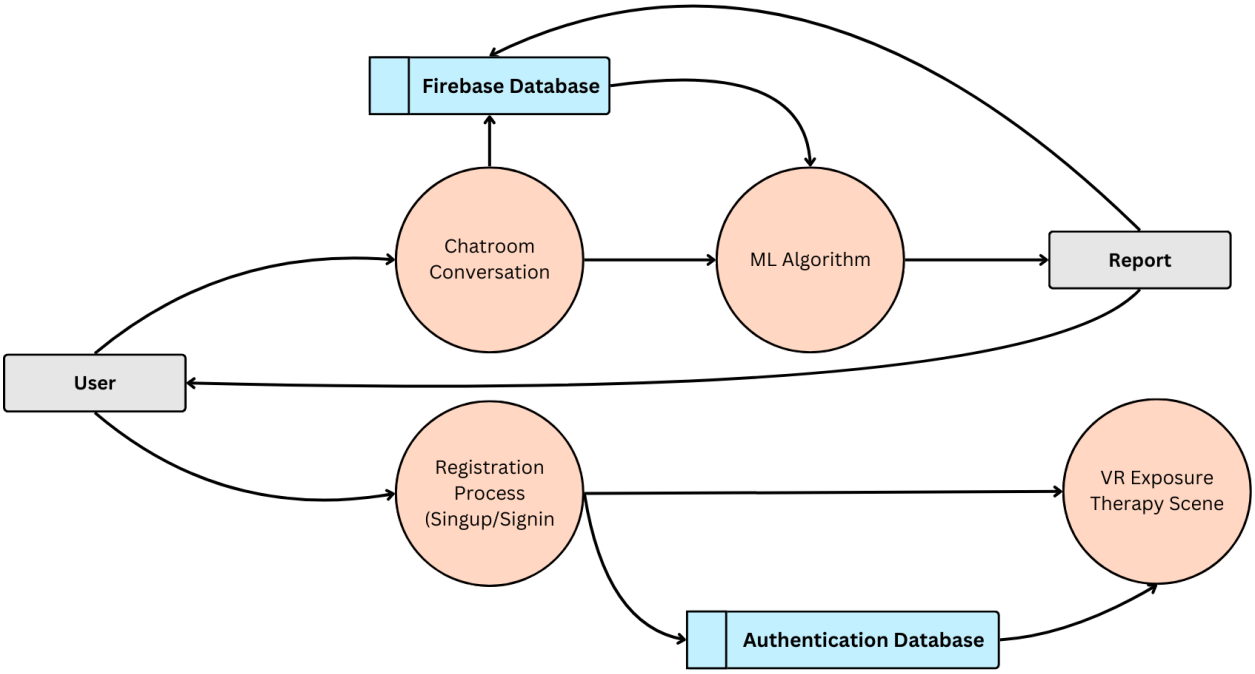
Firebase Database
Chatroom Conversation
ML Algorithm
Report
User
Registration Process (Singup/Signin
VR Exposure Therapy Scene
Authentication Database