



AI MENTAL HEALTHCARE CHATBOT

NEXT-GEN INTEGRATED CARE ECOSYSTEM

A high-security, triple-panel platform connecting patients and psychiatrists using Laravel, Node.js, and AWS for zero-leak data protection.

Unified Ecosystem Architecture

Smart Integration of Admin, Doctor, and Patient Panels

Three Core Control Panels



User Panel

Voice-first chat interface, real-time mood tracking, and instant doctor booking for patients.



Doctor Panel

Secured access to patient history, mood analytics, and integrated video consultation tools.



Admin Panel

Role-Based Access Control (RBAC), verification systems, and global platform security audit logs.

User Panel: **Voice-First AI**

- ✔ **Emotion Detection:** Real-time sentiment analysis via voice tone and text.
- ✔ **Accessibility:** One-tap buttons and voice commands for elderly/disabled users.
- ✔ **Health Monitoring:** Daily mood graphs and pattern trigger analysis.
- ✔ **Instant Booking:** GPS-based psychiatrist finder with WhatsApp/Call integration.



Doctor Panel: **Secure Insights**

Doclinic - Medical Bootstrap Admin Dashboard

18+ Dashboard

Multiple Demos, 80+ additional plugins, Many Types Of Charts, Clean code, Life time free Updates, Multiple Demos,

Multi Color RTL Ready Dark mode Horizontal

- ✔ **Patient Profiling:** AI-generated risk severity reports (Mild, Moderate, Severe).
- ✔ **Live Crisis Alerts:** Immediate notifications for high-risk patient activity.
- ✔ **Encrypted History:** Complete access to patient mood telemetry and AI chat logs.
- ✔ **Direct Consultation:** Built-in secured video calling and digital prescriptions.

Advanced Tech Stack

Stack Layer	Technology	Primary Advantage
Frontend	Next.js	Server-Side Rendering (SSR) for ultra-fast, responsive UI.
Core Backend	Laravel	Robust security for Admin/Doctor panels and API routing.
Real-Time Engine	Node.js	High-speed WebSockets for real-time AI chat and alerts.
Cloud Infra	AWS (Amazon)	Scalable servers with Australia-region data residency.
AI Core	NLP Engines	Deep sentiment analysis and intent keyword detection.

Zero-Leak **Security** Protocols



AWS VPC Isolation

Data is stored in isolated Virtual Private Clouds (VPC) to prevent external breaches.



E2EE Encryption

End-to-end encryption for all patient-doctor communications and AI chat logs.



MFA Access

Mandatory Multi-Factor Authentication for all Doctor and Admin logins.

Fully compliant with ISO 27001 and Australian Privacy Act standards.

| Life-Saving AI Detection

100%

UPTIME MONITORING

⚠️ Crisis Protocol

When high-risk keywords (suicide/self-harm) are detected via text or voice, the AI automatically triggers:

- ✔️ Instant Helpline connections (Lifeline/Beyond Blue).
- ✔️ Emergency priority alerts to the assigned psychiatrist.
- ✔️ Automatic family/guardian notifications.

Platform Performance Metrics



Scalable architecture handles thousands of concurrent sessions via AWS Elastic Load Balancing.

Traditional vs Our AI Hybrid

Feature	Traditional Therapy	Our AI Chatbot Ecosystem
Availability	Mon-Fri (Business Hours)	24/7/365 Instant Support
Wait Times	Average 4-8 Weeks	Zero Wait Time
Anonymity	Limited	High (Anonymized AI Interface)
Severity Handling	Human-Only Dependent	AI Pre-screening + Doctor Priority

Empowering the Future of Mental Health

"Our AI MENTAL HEALTHCARE CHATBOT is not just an application; it is a secure bridge ensuring no one faces a crisis alone. High tech, high security, high empathy."

Thank You

Transforming Mental Health Support with AI Precision.



Questions & Answers Session

Image Sources



https://static.vecteezy.com/system/resources/previews/060/033/619/non_2x/closeup-portrait-of-smiling-young-man-holding-cellphone-near-mouth-using-mobile-voice-recognition-or-digital-assistance-app-speaking-with-virtual-assistant-recording-message-or-talking-on-smartphone-photo.jpg

Source: www.vecteezy.com



<https://multipurposethemes.com/wp-content/uploads/2023/09/Doclinic-Medical-Bootstrap-Admin-Dashboard.jpg>

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Source: iida.org
