

# Mantel Group - Beyond Blue

**Situation:** Beyond Blue supports Australians facing mental health challenges, often receiving high volumes of requests during peak periods

**Complication:** During these peak times, it's difficult for staff to triage and prioritise the most critical cases quickly and efficiently.

**Question:** How can Beyond Blue ensure that people in serious distress are identified and assisted as a priority, even before human interaction?

**Answer:** We propose a sentiment-aware AI chatbot that engages users upfront and uses natural language processing (NLP) to detect urgency, enabling smarter triaging and priority callback lists for staff.

## What is your proposed solution or idea?

We propose a sentiment analysis-driven AI chatbot that acts as a **first point of contact** for Beyond Blue. The chatbot will:

- Respond to users via AI generated messages
- Analyse emotional tone and urgency using **large language models (LLMs)** and NLP sentiment scoring
- Categorise users into **priority tiers** for callback or escalation
- Provide empathetic responses and reassurance while data is processed for human follow-up

## Who would benefit and how does it provide commercial value?

- **Clients (Beyond Blue and similar mental health providers):** Reduce callback delays for critical users, optimise limited support staff, and improve crisis response efficiency.

- **End users (Australians in distress):** Get quicker help when most needed, feel heard even during busy periods.
- **Commercial value:** This product can be offered as a **customisable AI triaging platform** to NGOs, healthcare providers, and crisis centres—scalable across sectors.

## Technologies and Methods

- **LLMs (e.g., OpenAI, Azure OpenAI):** For natural and nuanced conversational responses
- **NLP + Sentiment Analysis:** Tools like VADER, TextBlob, or HuggingFace models to assess emotional tone
- **Streamlit / React Frontend:** For prototype interface
- **MongoDB:** To store anonymised user chat logs and triage results (if scaled further)
- **Azure Web Apps / GCP:** For scalable deployment (if scaled further)