



Caregiver Connect Chatbot

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The healthcare system in Alabama is struggling

Health information can be difficult to obtain

There is no central database for caregivers within the state leading to residents not knowing what options are even available in their area.

Health information is understandably confusing

Even for those who know what is around parsing what is covered by providers such as medicare is difficult even in the best of times.

Breaking down the barriers between care and caregivers for a healthier Alabama

Actionable Goals

We are part of a larger overall project to design and implement a care centric app, which will be used to educate and connect caregivers within the state with the resources they need.

This project at current is broken into two sections of which this group will be focused on updating and securing a chat bot to serve as the primary interaction point between client and service.



Who are we working with?

Who we are making this for

1

Caregivers such as social workers or other state services

2

Doctors and service providers who may not be located near their patients home

3

Those needing care and information for what options exist in the state

What we are hoping to provide to them

A reactive ,intelligent chat bot to help find and explain options in real time.

The ability to look up and find local care options for patients across the state.

A patient, easy to access resource which can help identify which options are best for their given situation.

Core features of the Caregiver Connect chatbot

The chatbot is connected to the Caregiver Connect database

The database the chatbot is connected to is filled with the names, locations, descriptions, and contact information for known available resources.

The chatbot is connected to Google Gemini

For information not included in the Caregiver Connect database, Google Gemini replies to the question.

Technical Details

1

Django (Python)

- Controls core application logic
- Existing models, views, routing from previous team

2

PostgreSQL (PostGIS + Vector)

- Stores provider and medical center information
- Provides region-based queries to determine local medical centers

3

Gemini AI

- Query classification
- SQL command generation
- Custom response integration

Development Environment

Local Development

- Django development server - run and test locally
- PostGIS - run and use locally
- Local Docker deployment available

Local Testing

- Django Unit Tests: use mock database to validate key functions
- Debugging tools: Python debugger, extensive logging

Deployment

- Use existing Docker deployment method
- Use pre-existing Gemini token and environment

Related Apps

PDC30 Chatbot

A chatbot developed to provide education and support for caregivers of people with dementia. It was built using GPT-4o but constrained to only give advice based on a validated caregiving guide (The Positive Dementia Caregiving in 30 Days Guidebook). It was able to give practical and reliable responses to complex queries.

ADQueryAid

This is a chatbot that was developed to support caregivers of people with dementia and Alzheimer's. It uses a large language model and a curated database to answer queries. It provides real-time conversation for assistance with day-to-day challenges and supplies both informational and emotional support.

High Priority Challenges

1

Get familiar with necessary tools

- Learn to work with Docker, Django, and PostGIS before beginning development

2

Set up development environment

- Create a development environment to implement and test new features

3

Experiment with existing code base

- Run our own tests to diagnose issues and locate areas for improvement

References

[1]

S.-T. Cheng and P. H. F. Ng, “The PDC30 Chatbot: Development of a Psychoeducational Resource on Dementia Caregiving and a Mixed-Methods Acceptability Study Among Family Caregivers (Preprint),” *JMIR Aging*, Jun. 2024, doi: <https://doi.org/10.2196/63715>.

[2]

“Transforming Alzheimer’s caregiving with AI,” *Ndsu.edu*, 2025. <https://www.ndsu.edu/news/transforming-alzheimers-caregiving-ai> (accessed Jan. 22, 2026).