

MUSE - A Mental Health Well-Being Audio Journaling Tool

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Project Objective

- In a world that is very fast-moving, it is essential for individuals to be able to understand and find ways to improve their emotional well-being
- The main purpose of this application is to allow users to do audio journaling and keep a track of their daily emotions
- Our application is designed to provide personalized insights and recommendations to help users manage stress, enhance mindfulness, and foster emotional resilience
- We are using **Assembly AI audio to text transcriber** and **Lemur, the AssemblyAI LLM** to provide recommendations to users
- This will allow the model to get trained and enhance itself to align with the users' expectations, by improving the overall quality of the interaction

Project Workflow

The application analyses the audio file by summarizing the content and feeds it to the LLM to get personalised recommendations for the user



User records/uploads an audio file for a day on the calendar to get specific well-being recommendations



Recommendations provided to the users from their audio journals

Scenario

We have a user, Elena, who is very successful professionally but is struggling to maintain relationships with friends and loved one. She has an audio journal for December 2nd, 2024 as shown below. Let's take a look at how MUSE analyses this to provide recommendations for Elena.

Voice Journal - December 2nd, 2024

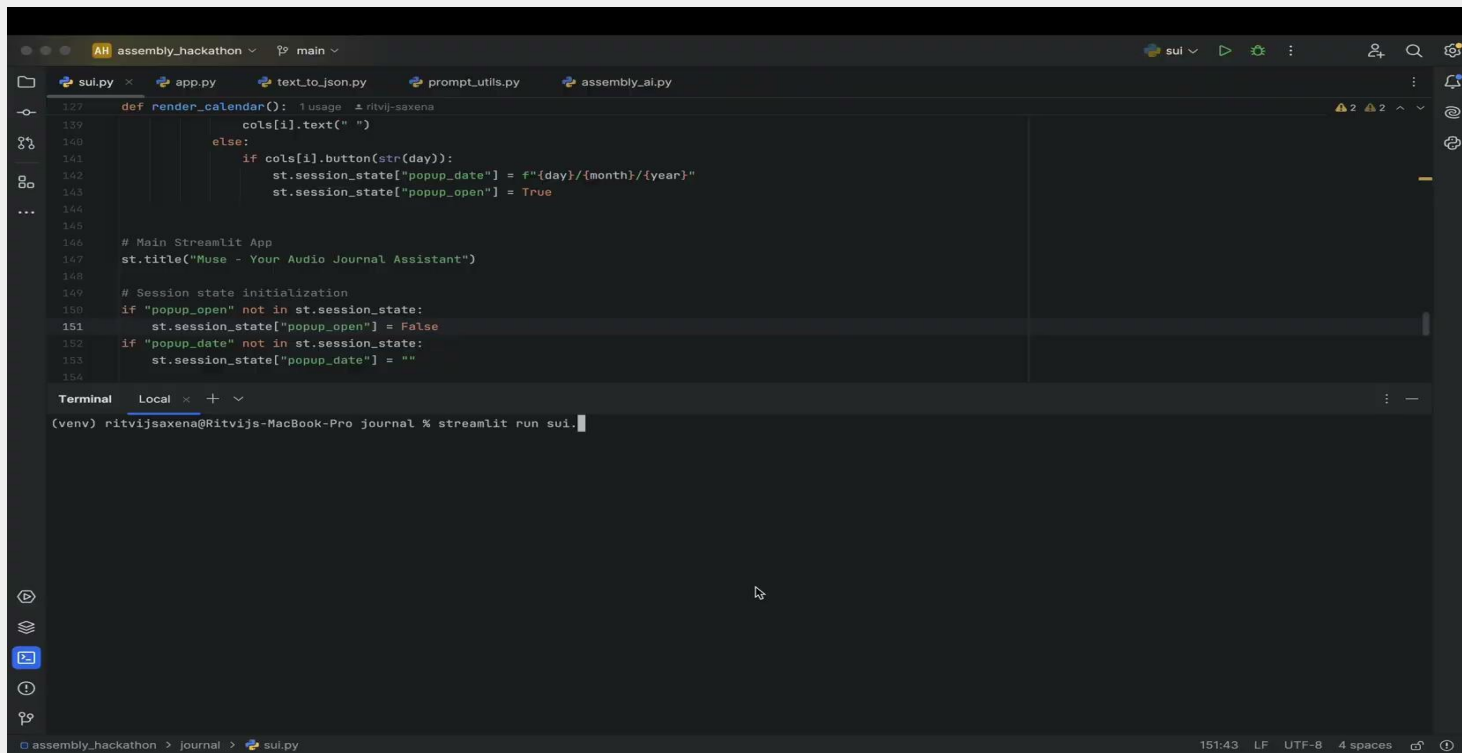
Hey, it's me again.

Today was... better, I think. Work kept me busy, and for the most part, it went well. I actually felt productive, like I was hitting my stride again. There was this one project that had been stuck for ages, and I finally found a solution—it felt good, like I was back in my element. My team even gave me a little shoutout in the meeting, which was nice. Professional life felt... steady today, you know?

But outside of work... it's still complicated. I reached out to someone—I thought it might help—but the conversation didn't go the way I hoped. It left me feeling more... distant than before. I guess some things just take time, or maybe space. I don't know.

Still, the day didn't feel as heavy as yesterday. Progress, I guess? And work was a win, so I'll take that. Here's hoping tomorrow brings more of that energy.

Demo



The screenshot shows a code editor with a dark theme. The top bar indicates the project is 'assembly_hackathon' and the current file is 'main'. The editor has several tabs open: 'sul.py', 'app.py', 'text_to_json.py', 'prompt_utils.py', and 'assembly_ai.py'. The active tab is 'sul.py', which contains Python code for a Streamlit application. The code includes a function 'render_calendar()' that updates session state for a calendar popup, and a main app block that initializes session state and sets the title to 'Muse - Your Audio Journal Assistant'. A terminal window at the bottom shows the command 'streamlit run sul.py' being executed in a virtual environment.

```
127 def render_calendar():
128     cols[i].text(" ")
129     else:
130         if cols[i].button(str(day)):
131             st.session_state["popup_date"] = f"{day}/{month}/{year}"
132             st.session_state["popup_open"] = True
133
134
135
136 # Main Streamlit App
137 st.title("Muse - Your Audio Journal Assistant")
138
139 # Session state initialization
140 if "popup_open" not in st.session_state:
141     st.session_state["popup_open"] = False
142 if "popup_date" not in st.session_state:
143     st.session_state["popup_date"] = ""
144
145
146
147
148
149
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151
152
153
154
```

Terminal

```
(venv) ritvixsaxena@Ritvijs-MacBook-Pro journal % streamlit run sul.py
```

Code Repository: https://github.com/ritvij-saxena/assemblyai_hackathon_ars.git

Future Scope

- More Personalized features
 - Goals setting tracking
 - Read out recommendations for visually challenged
 - Sleep recommendation
- Video Journaling
 - Analyzing facial expressions
- Tracking health
 - Fitness apps
 - Gadgets (Apple Watch etc)
- Provide Emotional statistics
 - Range of emotions over a period of time