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Nov 15th report

**Prompt Engineering**

The primary goal of prompting is to provide clear and concise instructions to the language model. So that it can generate responses that are contextually appropriate, aligned with user preferences, and tailored to the specific requirements of the application. In this implementation, prompting ensures that the tone of the responses matches the user-selected style (Formal, Casual, or Humorous). The level of detail in the responses aligns with the user’s choice (Brief, Moderate, or Detailed). The chatbot provides helpful and accurate responses or gracefully admits 'I do not know' when unsure."

**Best Practices:**

Contextual Prompts: Including user preferences for tone and detail in the prompt ensures that the responses are tailored to user expectations.

Session State Management: Leveraging Streamlit's `st.session\_state` allows for dynamic updates and persistence of user preferences across interactions.

User-Friendly UI: Using radio buttons provides an intuitive interface for users to select their preferences quickly. And we used sidebar to display our radio buttons so that it won’t consume added space in conversation interface and more importantly it will stay on the screen all the time and we won’t have to scroll for changing the settings.

**Key Challenges:**

Balancing Detail: Striking the right balance between brevity and informativeness in 'Brief' vs. 'Detailed' responses required careful prompt engineering.

Tone Consistency: Ensuring the model consistently adheres to the selected tone was a challenge, as subtle differences in phrasing can shift tone.

API Response Limitations: Managing token limits and handling incomplete or ambiguous responses from the API were critical for reliability. For detailed response we had to increase the token limit of the chatbot so that the response is not stripped off and we will actually get detailed answer from the chatbot.

UI Integration: Maintaining a clean, responsive UI while ensuring user preferences are always visible.

Chatbot UI:

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Here we can see that after selecting ‘detailed’ level of detail we are getting detailed email draft.

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A screenshot of a computer

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Here, changing the tone from humorous to casual impacts the response a lot.

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Code snippets:

A screen shot of a computer program

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