Major Project for Prompt Engineering: "AI Assistant Development"

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#Code Starts here
import requests
import spacy
import wikipediaapi

# Load the spaCy model for English
nlp_model = spacy.load("en_core_web_sm")

def extract_keywords_from_query(user_query):
    """Extract keywords from the user query using spaCy."""
    doc = nlp_model(user_query)
    return [token.text for token in doc if token.is_alpha and not token.is_stop]

def fetch_information_from_wikipedia(user_query):
    """Fetch information from Wikipedia using the Wikipedia API."""
    keywords = extract_keywords_from_query(user_query)
    wiki_instance = wikipediaapi.Wikipedia(
        language='en',
        user_agent='YourName AI Assistant (https://example.com)'  # Update with your user agent
    )

    try:
        print(f"Querying Wikipedia for: {' '.join(keywords)}")  # Debug statement
        page_info = wiki_instance.page(" ".join(keywords))  # Join keywords to create a
search string
        if page_info.exists():
            return page_info.summary[:500]  # Return the first 500 characters of the summary
        else:
            return "Sorry, I couldn't find any information on that topic."
    except requests.ConnectionError:
        return "Connection error. Please check your internet connection."
    except Exception as e:
        return f"An error occurred: {str(e)}"


def main():
    """Main function to run the AI Assistant."""
    while True:
        print("\nWelcome to YourName AI Assistant!")
        user_input = input("Enter your question or type 'exit' to quit: ")
        if user_input.lower() == 'exit':
            print("Exiting the AI Assistant. Goodbye!")
            break
        answer = fetch_information_from_wikipedia(user_input)
        print(answer)


if __name__ == "__main__":
    main()
```