README for Running the Chatbot Code

Prerequisites

Ensure you have the following installed on your system:

- Python 3.7 or higher
- pip (Python package installer)

Required Python Packages

Install the necessary packages by running the following command:

bash

```
pip install sentence-transformers scikit-learn numpy pymupdf tk pyttsx3
```

Project Directory Structure

Your project directory should look like this:

```
chatbot_project/
|
├── chatbot.py
├── Sample Question Answers.json
├── corpus.pdf
```

- chatbot.py: The main Python file containing the chatbot code.
- Sample Question Answers.json: A JSON file with sample questions and answers.
- corpus.pdf: A PDF file containing additional text for the chatbot to use.

JSON File Structure

The Sample Question Answers.json file should have the following structure:

json

Copy code

```
[
  {
    "question": "What is your question?",
    "answer": "This is the answer."
```

```
  },
  {
    "question": "Another question?",
    "answer": "Another answer."
  }
]
```

Running the Code

1. **Place all the required files (chatbot.py, Sample Question Answers.json, corpus.pdf) in the same directory.**

2. **Open a terminal or command prompt.**

3. **Navigate to the project directory:**

bash

```
cd path/to/chatbot_project
```

4. **Run the chatbot application:**

bash

```
python chatbot.py
```

Using the Chatbot

- Once the application starts, a GUI window will open.

- You can type your questions into the text entry box at the bottom and press the "Send" button or press Enter to send the message.

- The chatbot will respond in the chat window, and you will also hear the responses through text-to-speech.

Note

- Ensure your corpus.pdf and Sample Question Answers.json files are formatted correctly and are placed in the correct directory.

- If you encounter any issues, check the terminal for error messages and ensure all dependencies are installed correctly.

Enjoy using your chatbot!