**Module 3: Frontend Development**

**Operating System:** The chatbot is developed and run on **Windows 11**.

**Frontend Stack**

**HTML, CSS, JavaScript (with optional React)**

* Used to create a responsive and interactive user interface.
* Provides input fields for chatting with the AI assistant.
* Displays responses in a clean chatbox format for better readability and user experience.

**Bootstrap/Tailwind CSS (optional)**

* Enables quick and consistent UI design using pre-built utility classes.
* Supports responsiveness and mobile-friendly layouts.
* Simplifies styling without needing custom CSS files.

**VS Code (Visual Studio Code)**

* Primary development environment used for frontend and backend coding.
* Offers intelligent code suggestions, error checking, and integrated terminal.
* Supports live server previews and debugging tools.

**Frontend Functionalities**

* **Static File Serving via FastAPI**:  
  The index.html is served from the /static folder using FastAPI’s StaticFiles.
* **Chat Interface**:  
  Allows users to input queries and displays AI responses dynamically.
* **Document Upload Interface**:  
  Provides an option for users to upload PDFs which are then processed by the backend for text extraction and summarization.
* **Health Check Endpoint (/health)**:  
  Displays a message: *“Jio HR Chatbot is live and smart!”* — ensuring server is up and running.

**Screenshots**

**Fig 1**: Homepage interface of the Jio HR Chatbot — users are welcomed with a chatbox and an option to upload documents.

