**Project Task Document**

Rishiraj: Web Development, API/Model Integration

Database Management, Web Functionality

API Management , Performance , Deployment

Project Overview: **Medical Insurance Form Filling**

The project focuses on developing a **Medical Insurance Form Filling system**. This solution will streamline form filling by utilizing that interprets and auto-fills form fields based on natural language input. The system will feature a web page interface enhanced with the **Web Speech API** for voice input, efficient data management using a database, and seamless deployment using **Render** for reliable hosting and accessibility.

**Task Breakdown :**

1. Web Development:

Tasks:

Design the user interface for the medical insurance form using HTML, CSS, and JavaScript.

Ensure responsive design for both desktop and mobile platforms.

Implement user input forms and navigation.

Connect the web page to the backend to communicate with the Web Speech API.

2. Model Development Using Web Speech API:

Tasks:

Collaboratively develop and fine-tune Web Speech API to understand and process medical insurance form requirements.

Train the model to interpret different medical terms and user queries accurately.

Optimize the model for efficient real-time form filling.

Integrate the model with the web application using an API and document its parameters.

Perform testing to ensure the model meets the form filling standards.

3. Database Management:

Tasks:

Design the database schema to store user data and form details securely.

Use a relational or MySQL database (such as PostgreSQL, or MongoDB).

Implement efficient data storage, retrieval, and backup mechanisms.

Ensure data privacy and compliance with medical information security regulations.

4. Integration and Backend Development:

Tasks:

Develop the backend logic to handle API requests and manage data processing.

Connect the Web Speech API to the web page for real-time interaction.

Ensure smooth data flow between the frontend, backend, and the database.

5. Deployment Using Render:

Tasks:

Set up the Render environment, including provisioning a web service and ensuring adequate scalability and performance.

Configure environment variables, health checks, and necessary dependencies within the Render dashboard.

Deploy the web application and model on Render for seamless and efficient access.

Implement monitoring and logging using Render’s built-in monitoring tools to maintain system performance and reliability.

6. Additional Responsibilities:

Testing and Debugging:

All team members will participate in testing the API/model and the web interface.

Conduct integration testing to ensure that the Web Speech API and form filling process work seamlessly.

Documentation:

Each team member will maintain comprehensive documentation of their contributions, including setup instructions and a user guide for the system.

7. Project Timeline:

Week 1-2: Web Page Design & Initial Model Setup

Week 3-4: API/Model Integration for Medical Form Use Case & Database Setup

Week 5-6: Backend Integration & Preliminary Testing

Week 7-8: Deployment on Render & Final Testing

Tools & Technologies:

Web Development: HTML, CSS, JavaScript, Flask/Django (for backend)

Model: Web Speech API

Database: MySQL/PostgreSQL/MongoDB

Deployment: Render

Version Control: GitHub

Notes:

All source code will be managed using GitHub for version control.