**Team Workload Distribution**

**1. Project Manager + Developer - Vishwa Jayawickrama**

**Responsibilities:**

* Project Manager: Planning, coordination, assigning tasks, stakeholder communication, final presentation.
* Design & integrate AI chatbot (Generative AI).
* Handle all AI logic, NLP for queries, integration with backend APIs.
* Testing: Write unit tests for chatbot and AI workflows.

**2. Full stack Developer (Frontend & Prototype Specialist) – Bashitha Samarasinghe**

**Responsibilities:**

* Design UI/UX mockups, color palettes, branding, and wireframes.
* Build interactive prototypes for customer and employee/admin flows.
* Inventory Management: Track spare parts, supplies, and ensure availability for ongoing and upcoming services.
* Testing: Usability testing and frontend component testing.

**3. Full-Stack Developer (Authentication & RBAC) – Lakshan Abeynayake**

**Responsibilities:**

* Build customer & employee login/signup,
* Role Base Access (Customer / Employee / Admin)
* Authentication Middleware
* Shift Scheduling & Resource Management: Manage employee shifts, availability, and optimize resource allocation.
* Testing: Unit/integration tests

**4. Full-stack Developer (Customer Functionality 1) – Swetha Nethmi**

**Responsibilities:**

* Request a vehicles modification (treated as a vehicle project).
* Book an appointment for a vehicle service.
* Testing: Unit/integration tests

**5. Full-Stack Developer (Customer Functionality 2) – Jinathi Kodikara**

**Responsibilities:**

* Dashboard to view service/project progress in real-time. (realtime updates using WebSockets, server-sent events, or polling)
* Integrate Geo-location map & connect frontend components to backend APIs.
* Testing: Unit/integration tests

**6. Full-Stack Developer (Employee Functionality 1) – Asandi Alwis**

**Responsibilities:**

* Ability to log time against each project/service.
* Track progress and update status of ongoing services/projects. (Real Time)
* Testing: Unit/integration tests for employee/admin flows.

**7. Full-Stack Developer (Notifications & Communication Integration) – Hiruna Warusawithana**

**Responsibilities:**

* View upcoming appointments and requests for employees.
* Notifications & Communication - Enable real-time notifications via email/SMS/push and provide communication channels between customers and employees.
* Testing: Integration tests for notifications & communication flows.

**8. Database & DevOps Engineer – Pasindu Lakmal Bandara**

**Responsibilities:**

* Design & maintain database schema (customers, vehicles, services, employees, inventory, logs).
* Ensure data integrity, indexing, and query optimization.
* Containerize frontend, backend, and database using Docker.
* Orchestrate services with docker-compose / Kubernetes.
* Setup CI/CD pipelines (GitHub Actions/GitLab CI).
* Cloud deployment + environment management.
* Testing: Infrastructure testing & environment automation.

**9. QA Engineer (System Testing & Automation) – Rashmitha Chamikara**

**Responsibilities:**

* Design comprehensive test plans (functional, load, stress, security).
* Maintain bug reports & track fixes with developers.
* Automate regression testing & ensure test coverage.
* Test integrated workflows (customer, employee, AI, notifications).