Team Workload Distribution

1. Project Manager + Developer – Vishwa Jayawickrama

Responsibilities:

- **Project Manager**: Planning, coordination, assigning tasks, stakeholder communication, and final presentation.
- Design & integrate AI chatbot (Generative AI).
- Handle all AI logic, NLP for queries, and integration with backend APIs.
- **Testing**: Write unit tests for chatbot and AI workflows; perform QA for AI-related components (functional testing, bug reporting, and ensuring quality in AI-driven features).

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 services.
- **Testing**: Usability testing and frontend component testing; perform QA for frontend and prototype components (functional testing, bug reporting, ensuring quality in UI/UX flows).

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

Responsibilities:

- Build customer & employee login/signup.
- Implement Role-Based Access Control (Customer / Employee / Admin).
- Develop authentication middleware.
- Shift Scheduling & Resource Management: Manage employee shifts, availability, and optimize resource allocation.
- **Testing**: Unit/integration tests; perform QA for authentication and RBAC (functional testing, security checks, bug reporting, ensuring quality in access control flows).

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

Responsibilities:

- Implement "Request a Vehicle Modification" (vehicle project).
- Enable booking appointments for vehicle services.
- **Testing**: Unit/integration tests; perform QA for customer functionality (functional testing, bug reporting, ensuring quality in request and booking flows).

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

Responsibilities:

- Develop dashboard to view service/project progress in real-time (WebSockets, SSE, or polling).
- Integrate geo-location maps & connect frontend components to backend APIs.
- **Testing**: Unit/integration tests; perform QA for customer dashboards and geo-location (functional testing, load/stress checks, bug reporting, ensuring quality in progress tracking flows).

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

Responsibilities:

- Enable employees to log time against each project/service.
- Allow progress tracking and status updates of ongoing services/projects (real-time).
- **Testing**: Unit/integration tests; perform QA for employee functionality (functional testing, bug reporting, ensuring quality in time logging and progress tracking).

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

Responsibilities:

- Build employee views for upcoming appointments and requests.
- Implement real-time notifications (email/SMS/push).
- Provide communication channels between customers and employees.
- **Testing**: Integration tests for notifications & communication; perform QA for real-time flows (functional testing, bug reporting, ensuring quality in notification and appointment viewing).

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 & automation; perform QA for database/DevOps (load/stress testing, security checks, bug reporting, ensuring quality in data integrity and deployments).

9. Full-Stack Developer (Admin Panels) – Rashmitha Chamikara

Responsibilities:

- Build admin panels for managing customers, vehicles, services, employees, inventory, logs, and user roles.
- Implement admin features: reporting tools, audit logs, and configuration settings.
- Integrate admin panels with backend APIs, authentication, and (real-time updates.)
- **Testing**: Unit/integration tests for admin panels; perform QA for admin components (functional testing, security checks, bug reporting, regression test automation, ensuring test coverage, and coordinating integrated workflow testing across modules).