**Weekly Progress Report**

Name: Sahil Mishra Devendra

Domain: Full Stack Web Development

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Week Ending: 04

**I. Overview**

In Week 4, I focused on finalizing the **ServiceHub Marketplace project**. This week’s work involved completing the remaining **backend modules**, polishing the **frontend UI**, connecting all core features end-to-end, and preparing the project for **deployment** and demonstration. I also ensured that the codebase follows best practices for **maintainability** and **scalability**.

**II. Achievements**

**1. Frontend Development**

* Completed all user-facing pages: Home, Service Listings, Service Details, Profile, Booking History.
* Integrated dynamic forms for service posting and booking, fully connected to live APIs.
* Finalized reusable components with Radix UI for dialogs, modals, and notifications.
* Improved responsiveness and accessibility across different devices.
* Added final animations and micro-interactions using Framer Motion for a polished user experience.

**2. Backend Development**

* Completed all CRUD operations for Users, Services, and Bookings.
* Integrated JWT-based authentication and role-based access control.
* Implemented API validation and error handling for production readiness.
* Documented all API endpoints using Swagger/OpenAPI for easy reference.

**3. Database & Deployment**

* Deployed the PostgreSQL database on a cloud service.
* Verified data integrity with real test data.
* Finalized Docker setup for backend and database containers.
* Successfully deployed the frontend to Netlify and the backend to Render.
* Set up environment variables securely for deployment.

**4. Testing & Quality Assurance**

* Completed unit and integration tests for major backend modules.
* Performed manual QA to catch edge cases and fix minor bugs.
* Conducted cross-browser testing to ensure consistent performance.

**5. Version Control & CI/CD**

* Merged all feature branches into the main branch after peer review.
* Configured final GitHub Actions workflows for automatic builds and tests.
* Verified that deployments happen smoothly with each push to main.

**III. Project Status**

**Project Ready for Final Submission**

* Frontend and backend are fully functional and integrated.
* All core features work as expected: user signup/login, service posting, booking, and profile management.
* Live demo deployed and accessible for testing.
* Project repository is clean, well-documented, and includes instructions for setup.

**IV. Challenges Faced**

* Fine-tuning deployment configurations for different environments.
* Debugging role-based access and JWT token expiry issues.
* Managing time effectively between final fixes and documentation.

**V. Learning Resources**

* Official docs: React, Vite, Tailwind CSS, Radix UI, Framer Motion.
* PostgreSQL and Sequelize ORM.
* JWT authentication tutorials and best practices.
* Docker Compose and cloud deployment guides.
* Swagger/OpenAPI documentation tools.

**VI. Next Steps**

* Conduct a final demo walkthrough before submission.
* Prepare and submit the project report and presentation.
* Gather feedback from mentors and peers to note areas for future improvement.

**Additional Comments:**I am ready to submit my final ServiceHub Marketplace project. This week’s focused effort has ensured that the project meets the goals defined at the beginning. I am confident about showcasing it as a complete, functional, and deployable product.