

Major Project Review-2

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Grus & Grade Private Ltd.

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Agenda

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- Current Status
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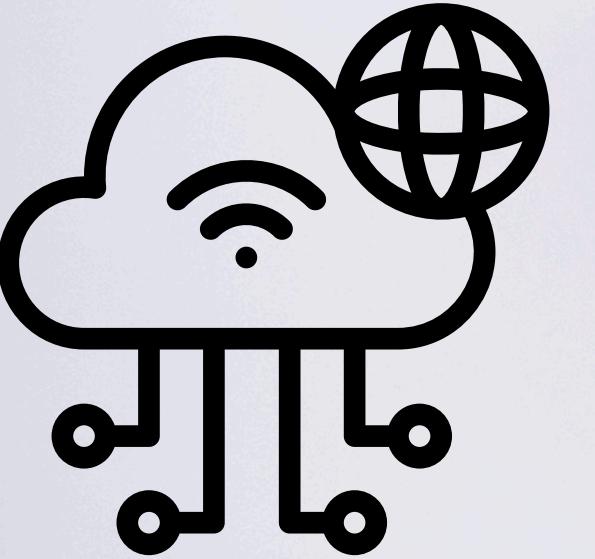
About the Company

- Grus & Grade Private Limited is an agritech and consultancy startup founded in May 2020. The company was founded by alumni of IIM Indore, IIIT Delhi, and Delhi School of Economics.
- It is incubated at Aspire BioNEST, University of Hyderabad, and APIARY – Centre of Excellence in Blockchain Technology, STPI Gurugram under MeitY, Government of India.
- The company's mission is to ensure transparency and traceability in the agricultural value chain, increasing sustainable income for smallholder farmers.
- The vision is to create sustainable value and development in the agricultural value chain through innovative technology.
- The company offers "UpajGuru," an AI, blockchain, and IoT-powered platform to enhance farm management and market access for farmers. It established operations across six Indian states within the first 18 months.

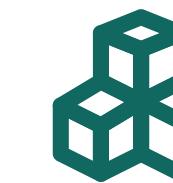


Department & Team

- I am part of the CRD (State Street Alpha) Department and Cloud India Team.
- State Street Alpha is the first front-to-back asset servicing platform from a single provider for institutional and wealth management firms.
- Alpha brings together our clients' choice of real-time data and asset intelligence across the investment lifecycle to help them make better decisions and deliver growth for their clients.
- Together with State Street's middle and back office capabilities, Charles River IMS forms the foundation of State Street Alpha .



Technical & Non- Technical Training



We were told to complete the mandatory training on non-technical topics like company policies, company overview, client, and product overview.



For technical training, as I am part of the Software Engineering team, topics for the technical training include Microservices architecture, IoT fundamentals, Cloud computing concepts, containerization with Docker and Kubernetes, and backend development using Node.js.



We are given resources and schedule to complete this training successfully within the given timeframe.

Project Title :

Rental Fleet Manager

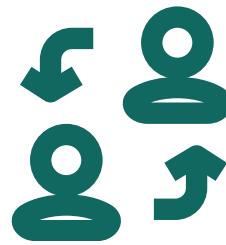
Project Overview

01



Web-based platform
for vehicle rentals.

02



Users: Book vehicles |
Providers: List vehicles
| Admins: Manage
approvals.

03



Microservices
architecture for
scalability.

Key System Features



User

Register, browse
vehicles, book, review
& rate.



Admin

Approve providers, view
analytics.



Provider

Register, browse
vehicles, book, review
& rate

System Design & APIs

- Admin Service (Port: 5001): Approve providers, view analytics.
- Provider Service (Port: 5002): Manage rentals, vehicles, reviews.
- User Service (Port: 5000): User authentication, reviews.
- JWT authentication for secure access.

Database Design (MongoDB)

- Users Collection: Stores user information.
- Providers Collection: Tracks provider approvals.
- Vehicles Collection: Stores rental vehicle data.
- Reviews Collection: Manages ratings & feedback.



Current Status

- Backend API Development - ✓ Completed
- MongoDB Setup - ✓ Done
- Authentication (JWT) - ✓ Implemented
- API Testing (Postman) - ✓ Ongoing
- Frontend Development - 🚧 Next Phase



Future Development

- Develop frontend using React.js.
- Integrate backend APIs with UI.
- Implement payment gateway for bookings.
- Use Docker & Messaging Queue for containerized deployment and scalability.



Conclusion

- Backend fully implemented with tested APIs.
- Next step: Frontend development & UI integration.

