AGRI LINK
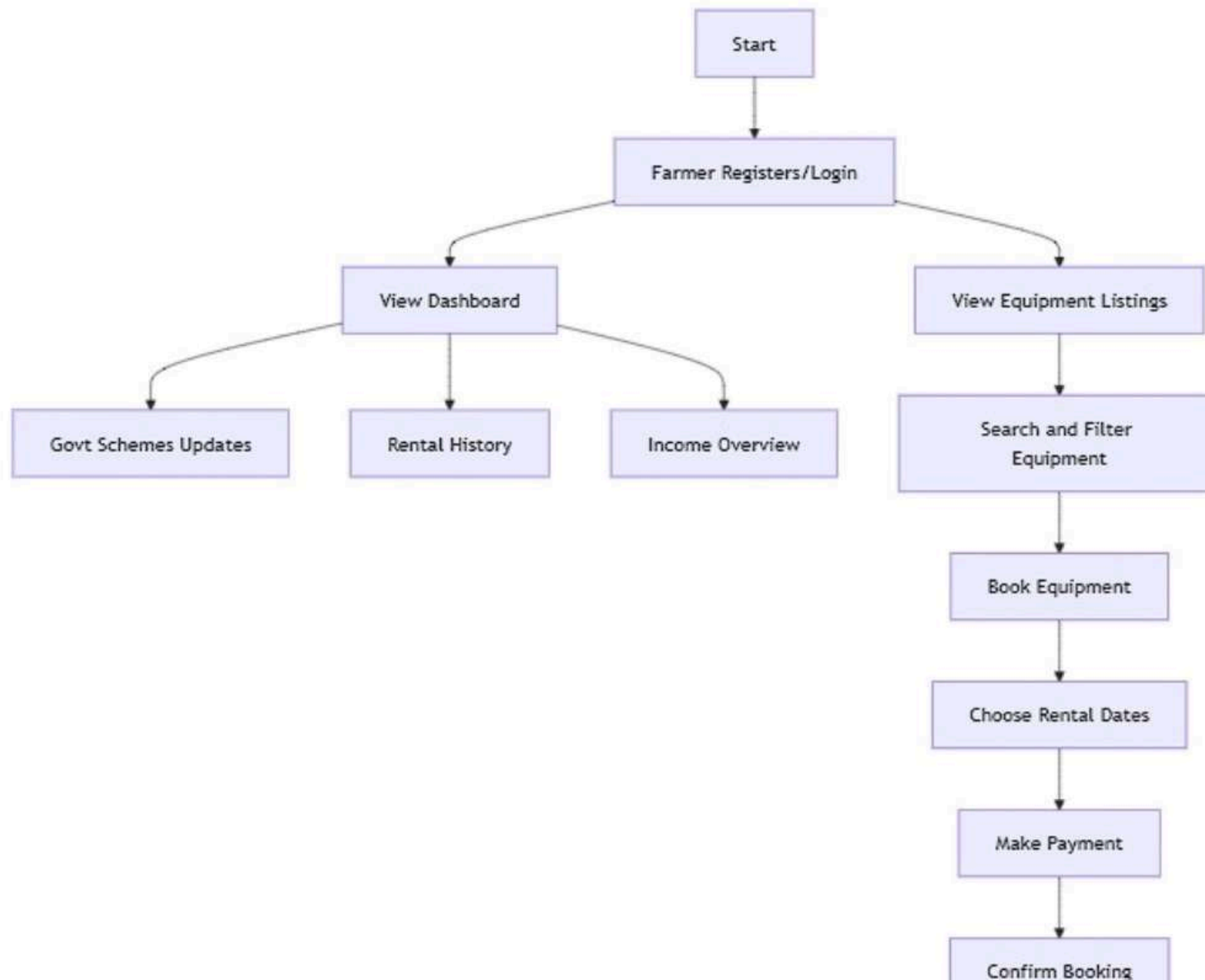
Fight club

SOLUTION OVERVIEW

- **Feature 1: Equipment Sharing**
- 1. Rent out or share farm equipment like tractors, harvesters, or plows.
- 2. Search and book equipment online.
- 3. Equipment listing with details and pricing.
- **Feature 2: Government Schemes Dashboard**
- 1. Access current government schemes and subsidies.
- 2. Personalized recommendations for individual farmers.
- 3. Guidance on scheme application processes.
- **Feature 3: Knowledge Center**
- 1. Learn about soil health, equipment maintenance, and best farming practices.
- 2. Articles, webinars, and workshops on farming techniques.
- 3. Expert advice and community forums for knowledge sharing.

SOLUTION OVERVIEW

TECHNICAL ARCHITECTURE

Tech Stack for Full-Stack Web Application
- **Frontend Technologies:**
- React
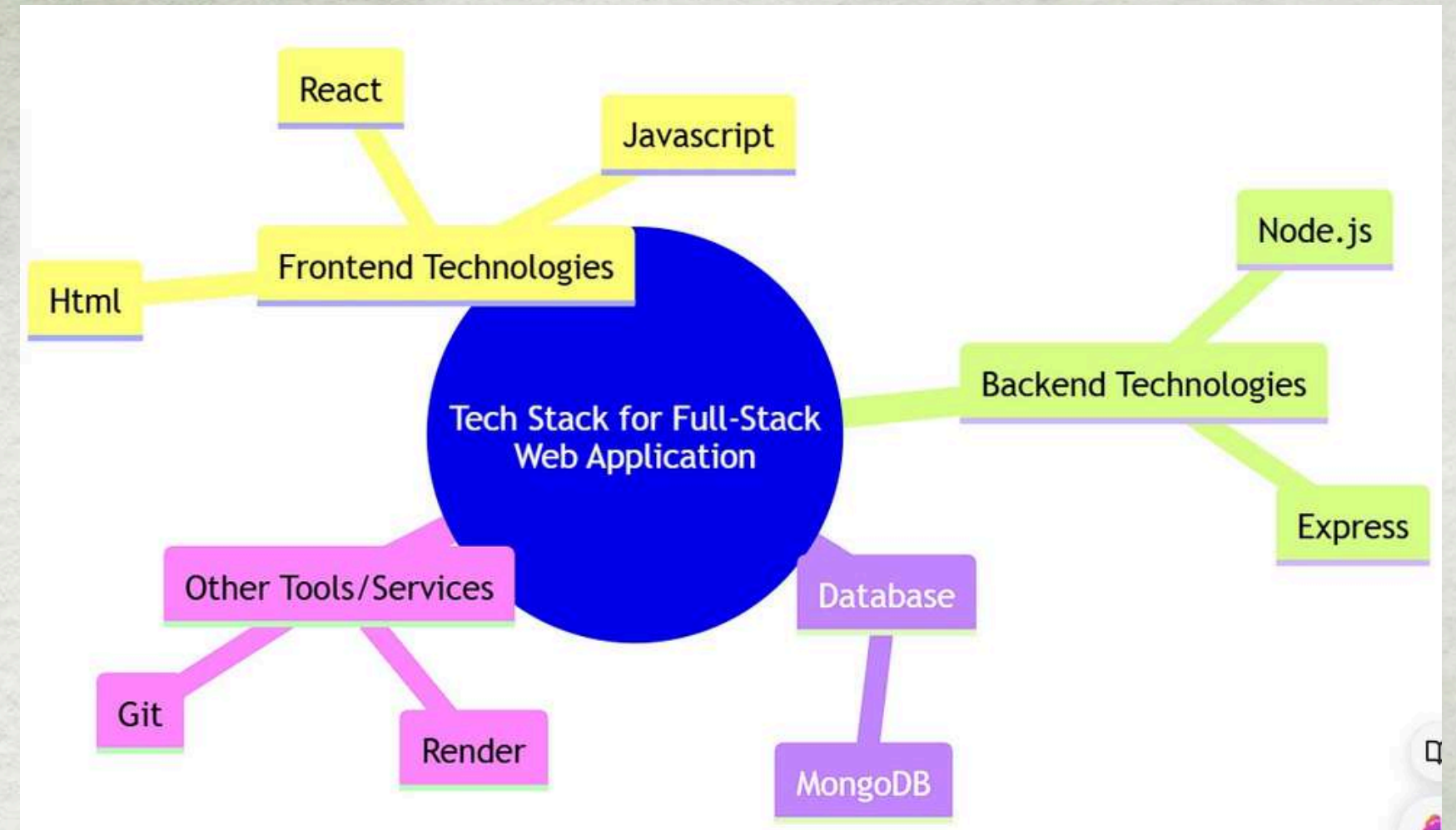- JavaScript
- HTML
- **Backend Technologies:**
- Node.js
- Express
- **Database:**
- MongoDB
- **Other Tools/Services:**
- Git
- Render
- Docker

SCALABILITY AND FUTURE SCOPE

SCALABILITY:
- **Horizontal Scaling:** Use sharding to grow as user base increases.
- **Indexing:** Faster search for listings, locations, and bookings.
- **Modular Services:** Separate services (auth, booking, payments) for easy, focused scaling.
- **Redis:** Cache frequent searches to reduce database load.
- **Usage Insights:** Track feature usage to guide scaling efforts.

FUTURE SCOPE:
- **Mobile Access:** Build a cross-platform app (React Native) for broader accessibility.
- **Equipment Tracking:** Build user trust with recorded ownership history.
- **Localization:** Add multiple languages and regional support.
- **New Revenue Streams:** Offer insurance options and premium subscriptions for added value

FEASIBILITY

POTENTIAL CHALLENGES AND RISKS

Trust Issues:
Farmers may worry about lending out valuable equipment due to the risk of misuse, excessive wear, or accidental damage. This is especially true for high-cost machinery.

Logistics:
Transporting large, heavy machinery between farms poses logistical challenges. For example, tractors or plows are not easy to move across long distances.

SOLUTION

Insurance Partnerships:
Partner with insurance providers to offer optional coverage for rented equipment. This insurance can protect against damages caused during the rental period.

Logistics Partners:
Collaborate with local logistics providers specializing in agricultural equipment transport. Reduces the logistical burden on farmers.

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Team Details

Yaswanth kancharla - Backend Development
- Technologies: Node.js, Express
- Responsibilities:
- Develop and manage server-side logic.
- Set up API endpoints for client-server communication.

DhanaSree- Front End Developer
- Technologies: React, JavaScript, HTML
- Responsibilities:
- Build and style the user interface.
- Ensure responsive design.

Chandu Prakash - DataBase Manager
- Technology: MongoDB
- Responsibilities:
- Design and maintain the database schema.
- Manage data storage, retrieval, and indexing.

Koushil - Website Scalability and Management
- Tools: Git, Render
- Responsibilities:
- Manage version control and branching using Git.

Yaswanth Kancharla
Developer
VIT-AP University

Chandu Prakash N
Developer
VIT-AP University

Koushil Chilla
Developer
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Dhanalakshmi Matta
Designer
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Thank you