

## Minutes of Meeting

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|---------------|-------------------------|--------------|----------|
| Date and Time | 30 April 2025 09:00 PST | Meeting type | Zoom     |
| Organiser     | Ms. Shruti              | Client       | Citywide |

### Attendees (Internal)

- Rupesh
- Kuldeep
- Jaspreet
- Gurpreet
- Sangita
- Vishesh
- Akash

### Attendees (Client Side )

- Tom, Teresa, Matt, Randy

## Agenda

- **Discussions on the following:**
  - Fleet Management System Update
  - Phased Approach for Feature Implementation
  - Prioritization of Core Tasks

## Summary

### 1. Fleet Management System Update:

#### a. Proposed Changes to Layout:

- i. **Sidebar Revamp:** Add a drop-down menu under "Fleet Management" to include the following categories:
  1. **Inventory** (currently "Update Vehicle")
  2. **Usage History** (currently "View Vehicle")
  3. **Service History** (new addition)
- ii. This will simplify navigation and reduce keystrokes for accessing vehicle details.

#### b. Vehicle Information Overview:

- i. **Inventory:** Will display key data such as:
  1. Vehicle purchase date
  2. Initial acquisition cost
  3. Depreciation schedule (if applicable)

- 4. Current value and other financial data
- ii. **Usage and Service History:** To display key metrics and service records per vehicle.
- c. **Manual Data Entry and Depreciation:**
  - i. **Manual Input:** For now, vehicle data (including depreciation and payments) will need to be entered manually.
  - ii. **Depreciation Scheduling:**
    1. Depreciation may be set as per the business rules (e.g., first-year full depreciation, 5-year schedule, etc.).
    2. **Future Automation:** Potential to automate depreciation calculation based on inputted values and vehicle debt status (e.g., when the debt is retired).
  - iii. **Business Use Case:**
    1. Vehicles with paid-off status (no payments due) become the most valuable for use since they have no associated monthly payment.
    2. The system should reflect the vehicle's true cost and value at different stages, especially when repairs exceed certain thresholds.
- d. **Vehicle Lifecycle Management:**
  - i. **Maintenance vs. Replacement:**
    1. **Decision Support:** The system should offer a clear indication (e.g., yellow or red status) when a repair cost exceeds a certain percentage of the vehicle's current value, triggering a recommendation to replace the vehicle.
    2. **Example:** If a vehicle has a \$6,000 repair cost and is worth \$10,000, the system should suggest whether to continue with repairs or trade the vehicle in for a new one.
- e. **Integration with Kelley Blue Book (KBB):**
  - i. **API Integration:** The system should integrate with KBB or a similar service to automatically pull real-time vehicle values based on the vehicle's VIN and details. This will allow for accurate valuation when considering trade-ins or sales.
  - ii. **Depreciation & Asset Value:**
    1. The system will track four key values for each vehicle:
      - a. **Depreciation Status:** How much value is left to be depreciated.
      - b. **Current Market Value:** As per KBB or similar.
      - c. **Remaining Debt:** Outstanding balance on the vehicle.
      - d. **Monthly Payment:** If applicable.
    2. The system should offer a recommendation on whether to replace or maintain the vehicle based on these values.
- f. **Recommended Decision-Making:**
  - i. **Simulating Financial Decisions:**
    1. The system could offer a recommendation when major repairs are proposed (e.g., \$6,000 for a transmission replacement) by comparing the repair costs with the value of the vehicle and potential monthly payments for a new

- vehicle.
2. **Business Decision Support:** Based on the vehicle's remaining value, repair costs, and potential savings, the system would recommend either maintaining the vehicle or replacing it.
  - ii. **Automation of Business Decisions:** The system could also suggest whether it's more cost-effective to repair or replace the vehicle based on pre-set formulas (e.g., repair cost exceeding five months of car payments).
- g. Feasibility Discussion:**
- i. **AI and Business Logic:**
    1. While an AI-based decision-making system to simulate business decisions (repair vs. replacement) could be valuable, it would be difficult to implement due to the complexity of business logic.
    2. A more feasible approach is to use business rules and financial logic to calculate recommendations, though some manual inputs may still be required for specific scenarios.
  - ii. **Realistic Expectations:**
    1. The system should help calculate the trade-in value and repair costs, but a fully automated decision-making system might be beyond the current scope due to the need for manual intervention and judgment calls in complex scenarios.
- h. Vehicle Identification and Market Pricing:**
- i. Multiple third-party APIs available for vehicle identification and pricing.
  - ii. Win Check API can be used to extract details based on the VIN, including trade price and market value.
  - iii. Action Item: Research available APIs to determine the level of detail they provide (free vs. paid versions) and their costs (one-time vs. recurring).
- i. AI Integration and Recommendations:**
- i. AI could be used to provide recommendations based on vehicle data, comparing past experiences and providing a market analysis.
  - ii. AI suggestions would depend on the model used and the data inputted by the user.
  - iii. Action Item: Research AI models suitable for the system, perform R&D, and compare options for the recommendation engine.
- j. Fleet Management Features:**
- i. Discussion on future fleet software features, including vehicle condition tracking, repair tracking, and trade value calculations.
  - ii. A basic fleet management skeleton is already in place, but additional features and AI components need further development.
- k. Vehicle Service Records and Notifications:**
- i. The system should track vehicle service records, including mileage and upcoming service due dates.
  - ii. Automated notifications to fleet maintenance when service is due, based on mileage.

- iii. Action Item: Modify the system to auto-generate service due notifications based on mileage data.

**I. Vendor and Labor Cost Tracking:**

- i. The system should track vendor details, labor hours, and parts costs for vehicle repairs.
- ii. A running total of labor and parts costs will help monitor vehicle maintenance expenses over time.
- iii. Action Item: Implement functionality to track and display running labor and parts costs for each vehicle in the fleet.

**m. Vehicle Condition and Idling Hours Tracking:**

- i. A separate system is needed to track vehicle idling hours via a device installed in the vehicle. This will be manually logged by fleet maintenance staff.
- ii. This is different from tracking service-related labor hours.
- iii. Action Item: Implement a manual entry for idling hours, as well as functionality for service hours logged by vendors.

**n. Search Functionality for Vehicle History:**

- i. The system will have a search feature to allow tracking of specific parts, such as tires and windshields, by keyword.
- ii. This will help users track maintenance history, such as when parts were last replaced and their corresponding mileage.
- iii. Action Item: Develop a search field for vehicle parts history to allow users to query maintenance records by keyword.

**o. Vehicle Valuation & API Integration:**

- i. Integrate third-party APIs (e.g., VIN check) to fetch vehicle details such as:
  - 1. Make, model, ownership history
  - 2. Insurance details
  - 3. Current market/trade value
- ii. Evaluate free vs. paid APIs for depth of vehicle history and pricing data.

**p. AI-Based Recommendation System:**

- i. Build a recommendation engine using AI models that:
  - 1. Analyzes historical vehicle data
  - 2. Compares with pre-set rules and past scenarios
  - 3. Recommends whether to repair, retain, or replace a vehicle
- ii. Multiple models should be evaluated and tested for fit based on system goals.

**q. Vehicle Service & Maintenance Tracking:**

- i. Manual entry interface for service history by fleet managers (due to lack of automation from service providers like Ford).
- ii. Log:
  - 1. Vendor/service provider info
  - 2. Labor and parts cost
  - 3. Service descriptions
  - 4. Purchase order numbers
- iii. Maintain a searchable keyword field to filter past services (e.g., "tires", "windshield").

**r. Preventive Maintenance & Notifications:**

- i. Track service intervals based on mileage.
  - ii. Auto-generate notifications when service is due (e.g., 500 miles before next service).
  - iii. Notifications configurable by admin (time/interval-based).
- s. Budget Tracking and Alerts:**
- i. Assign monthly/annual repair budgets to each vehicle.
  - ii. Track actual expenses vs. budget in real-time.
  - iii. Generate alerts when:
    - 1. Monthly average cost exceeds defined thresholds
    - 2. Vehicle crosses total budget or requires costly repairs (e.g., \$12,000)
    - 3. Example: \$500/month limit, \$111/month for oil changes factored in.
- t. Analytics Dashboard**
- i. Create a fleet analytics module with:
    - 1. Cost trends (monthly/yearly) per vehicle
    - 2. Cost per mile (maintenance, fuel, tires)
    - 3. Running balance of repair budget
    - 4. Comparison between vehicle models (e.g., Fusion vs. Explorer) on cost-efficiency
  - ii. Provide actionable insights for fleet replacement planning.
- u. Depreciation Calculation**
- i. **Input fields:** purchase cost, date, expected useful life, salvage value.
  - ii. **Automatic depreciation calculation:**
    - 1. Annual =  $(\text{Cost} - \text{Salvage}) / \text{Useful life in years}$
    - 2. Monthly =  $(\text{Cost} - \text{Salvage}) / \text{Useful life in months}$
    - 3. Show current book value over time
- v. Fuel Usage Tracking**
- i. **Integrate fuel usage data to calculate:**
    - 1. Monthly fuel cost
    - 2. Cost per mile
    - 3. Combine with repair cost for total operating expense
- w. Manual Data Responsibility**
- i. Fleet manager or designee responsible for inputting all post-service data manually.
  - ii. The system only processes and analyzes available/entered data (no direct API data from service providers like Ford).
- x. System Scalability & Phased Implementation**
- i. AI-based features and deep analytics will be part of Phase 3.
  - ii. Focus on core reporting, assignments, and accounting modules as immediate priorities.
  - iii. R&D and development on advanced features should be limited to ~5% of development time currently.
- 2. Phased Approach for Feature Implementation:**
- a. The **Fleet Management** module, including advanced features such as analytics and vehicle tracking, is part of Phase 3.
- 3. Prioritization of Core Tasks:**
- a. **Immediate Focus:** The current priority is on addressing the core operational tasks and features. These are to be completed first before

considering any new features or enhancements.

- i. Automatic Invoicing
- ii. Conversion Process Completion
- iii. Assignment Management
- iv. Bug Fixes

