Project Scope Document: Instant Marquees Melbourne Internal Operations Software

Project Name: Instant Marquees Melbourne Internal Operations Software (IMMIOS)

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1. Introduction

This document outlines the scope of work for the development of the Instant Marquees Melbourne Internal Operations Software (IMMIOS). The primary goal of this software is to centralize and streamline key operational processes for Instant Marquees Melbourne, including job scheduling, stock management, staff management, and vehicle management. This system is intended for internal use only, with a focus on improving efficiency, accuracy, and communication within the team.

The development will be led by the client, leveraging Cursor AI for code generation, with a target prototype launch by December 2025, followed by iterative development cycles.

2. Business Overview: Instant Marquees Melbourne

Instant Marquees Melbourne operates in the Events Logistics industry, specializing in the rental of marquees, umbrellas, and furniture. Services include DIY hire and full delivery/installation.

Unique Selling Proposition (USP): Quick response, fast installation, large stock quantity enabling single-vendor solutions for marquee needs, product quality, and excellent customer service.

Target Market: Primarily council/government-run public events requiring multiple smaller marquees for market stalls and booths. This niche benefits from Instant Marquees' ability to provide quick installation and removal using "Instant Pop-up Marquees," differentiating from competitors focused on slower-to-assemble "Structure Marquees" for domestic/wedding events.

3. Project Goals & Objectives

The overarching goal is to create a user-friendly, efficient, and reliable internal system that serves as a one-stop solution for Instant Marquees Melbourne's operational day-to-day needs.

Specific Objectives:

- **Centralize Operations:** Consolidate job scheduling, stock, staff, and vehicle management into a single platform.
- **Improve Efficiency:** Reduce manual processes and human error in scheduling, stock tracking, and resource allocation.
- **Enhance Communication:** Provide real-time updates across the team to ensure everyone has the most current information.
- **Optimize Resource Allocation:** Facilitate smarter decision-making for staff and vehicle assignments based on job requirements and availability.
- **Increase Accuracy:** Maintain precise stock levels and job details.
- **User Adoption:** Create an intuitive interface that is easy for tech-illiterate staff to learn and use, leading to full internal adoption.

4. Scope Inclusions (MVP for December 2025 Prototype)

The following core functionalities and features are in scope for the initial prototype release:

4.1. User Management & Access

- **Login/Logout System:** Secure authentication for internal staff.
- **Admin Login:** Dedicated login for administrators.
- **Staff Account Creation/Management:** Admin ability to create, edit, and link staff user accounts to staff names.
- **Role-Based Access (Basic):** Initial distinction between Admin and regular staff roles for access to settings.

4.2. Job Management & Scheduling

- **Calendar View:**
  - Display of all jobs (quotes and confirmed jobs) in day, week, and month views.
  - Ability to "add a quote" by clicking on the calendar, similar to Google Calendar.
- **Job Stages:** Support for "Quote" and "Job" (confirmed booking) stages.
- **Smart Booking Suggestions (Initial):**
  - System provides warnings if selected stock exceeds current availability during quote creation.
  - Initial framework for future "learning" from historical data for staff/vehicle/time suggestions.
- **Job Details:** Capture essential job information (client details, dates, times, location, products/services, notes).

4.3. Stock Management

- **Product & Component Tracking:**
  - Separate tracking for "Products" (what is hired out, e.g., 3x3m Pop-up Marquee) and "Components" (raw materials that make up products, e.g., frames, roofs, walls, weights).
  - Each "Product" has a defined "Bill of Materials" (BOM) listing required "Components."
  - Component attributes: size, color, condition (new, festive), type (e.g., 40mm vs 32mm frames).
- **Real-time Stock Synchronization:** Stock levels (both assembled products and raw components) update automatically as quotes are created/modified and jobs are confirmed/completed.
- **Assembly Workflow & Alerts:**
  - If a quote/job requires more assembled products than available, the system will check component stock.
  - If components are available, an alert will be triggered for the warehouse manager to assemble the required products.
  - System will adjust component stock down and assembled product stock up upon confirmation of assembly.
- **Stock Adjustment/Audit:** Manual adjustment capabilities for stock counts (e.g., for damages, new purchases).

4.4. Staff Management

- **Staff Profiles:** Basic profiles for each staff member (name, contact, possibly notes on speed/experience for future use).
- **Rostering View (Mode):**
  - A dedicated calendar "view mode" for the rostering manager.
  - Displays staff availabilities as a list for each day.
  - Allows manual input of staff availability.
  - Highlights jobs without assigned staff.
  - Includes a checkmark/color status to track if shifts have been "sent out" for a job (internal tracking, no Deputy integration in MVP).

4.5. Vehicle Management

- **Vehicle Profiles:** Dedicated page to manage vehicle details (e.g., display name, type, capacity, registration, servicing dates).
- **LoadList View (Mode):**
  - A dedicated calendar "view mode" for the loading manager.
  - Jobs are visually colored to indicate incomplete loadlists or discrepancies

    between loadlist and ordered stock.
    - System calculates component requirements for a job based on ordered products and their BOM.
    - Allows assignment of jobs/loads to specific vehicles.
    - Generates clear loading instructions for warehouse staff.

4.6. Real-time & Notifications

- **Live Updates:** All data changes made by one user are reflected in real-time on other users' screens (Google Docs-like functionality) using WebSockets.
- **Contextual Alert Badges:**
    - "Alert numbers" (badges) on "Rostering Mode," "LoadList Mode," and "Financial Mode" buttons.
    - These badges indicate the number of jobs with relevant *unseen* changes since that manager last reviewed that specific aspect.
    - Granular change detection: e.g., contact detail change only affects Financial view badge; stock change affects Rostering and LoadList view badges.

4.7. User Interface & Experience

- **Light and Dark Mode:** User-selectable theme.
- **Intuitive Design:** Focus on ease of use for tech-illiterate staff.
- **Responsive Design:** Accessible and usable across various PC screen sizes.

5. Scope Exclusions (Not in MVP)

The following features are explicitly out of scope for the December 2025 prototype but may be considered for future phases:

- **External Customer Access:** No client-facing portal or booking system.
- **Advanced AI/Machine Learning for Suggestions:** While the framework for historical data learning is in, advanced AI for highly optimized suggestions (beyond basic availability checks) is out.
- **Google Maps API Integration (Travel Time/Traffic):** Out of scope for MVP, but the data model will allow for its future inclusion.
- **Google Weather API Integration:** Out of scope for MVP.
- **MYOB Integration:** Out of scope for MVP due to security concerns and complexity, but the codebase should be structured to allow for future integration.
- **Inbuilt CRM:** Out of scope for MVP, as FieldMagic is currently in use.
- **Deputy Integration:** Automatic pulling of staff availability or pushing shifts to Deputy is out of scope for MVP. Manual input will be used initially.
- **Complex Reporting & Analytics:** Basic data display is in, but advanced custom reporting tools are out.

- **Mobile App Specific Development:** Focus is on web application for PCs.
- **CRDT Implementation:** While real-time updates are in, the complex Conflict-Free Replicated Data Types (CRDT) for true concurrent editing on the same field are out of scope for the MVP. Simpler conflict resolution strategies will be used.

6. Technology Stack (Recommended for Cursor AI)

Given the client's experience and the use of Cursor AI, a modern JavaScript-based full-stack solution is recommended:

- **Frontend: React** (via Next.js for server-side rendering benefits and project structure)
- **Styling: Tailwind CSS** (for rapid and responsive UI development)
- **Backend: Node.js** (with Express.js or similar framework)
- **Database: Firestore** (for real-time capabilities, scalability, and ease of integration with Firebase ecosystem, which often pairs well with Next.js/React).
- **Real-time Communication: WebSockets** (using a library like Socket.IO or native WebSockets for live updates).
- **Hosting: Vercel** (as requested, for Next.js deployment).

7. Project Timeline (High-Level)

- **Phase 1 (Current):** Discovery & Planning (Documentation) - July 2025
- **Phase 2:** Design (Wireframes, UI Mockups) - August 2025
- **Phase 3:** Core Development (MVP Features) - September - November 2025
- **Phase 4:** Testing & QA - November - December 2025
- **Phase 5:** Prototype Launch - December 2025
- **Subsequent Phases:** Major patches/feature additions every 6 months (June, December) for up to 3 years.

8. Client Responsibilities

- Provide timely feedback and approvals on all documentation and design artifacts.
- Be available for regular communication and clarification during development.
- Provide all necessary content (text, images, data) as required.
- Conduct thorough User Acceptance Testing (UAT) for each release.

9. Assumptions

- All communication will primarily be text-based, with occasional virtual meetings as needed.
- Client (as lead developer) has sufficient technical understanding (Node, Next,

HTML, CSS, TypeScript, Python) to work with the generated code and Cursor AI effectively.

- Cursor AI will be capable of generating functional code based on the provided detailed documentation.
- Firebase/Firestore will be used for authentication and database.
- No complex third-party API keys (e.g., Google Maps, Weather) are required for the MVP.