

Part 2: Designing the Future Inventory Management System

Project Worksheet Template

Instructions: Use this worksheet template to draft the final deliverable for this project.

[1] Business objectives <i>(Provide 5–6 well-defined business objectives.)</i>
<ul style="list-style-type: none">• Implement an automated cloud-based system to maintain real-time and error-free inventory records.• Reduce manual data entry time from two hours per day to less than 15 minutes through automation and POS integration.• Ensure product availability and faster checkout times by enabling real-time stock visibility and automatic reorder alerts.• Design a flexible system that supports future expansion, including additional users, product categories, or store locations.• Provide real-time dashboards and analytics to support data-driven purchasing and sales decisions.• Deliver a solution within the \$2,500 first-year budget using cloud-based software that requires minimal maintenance.

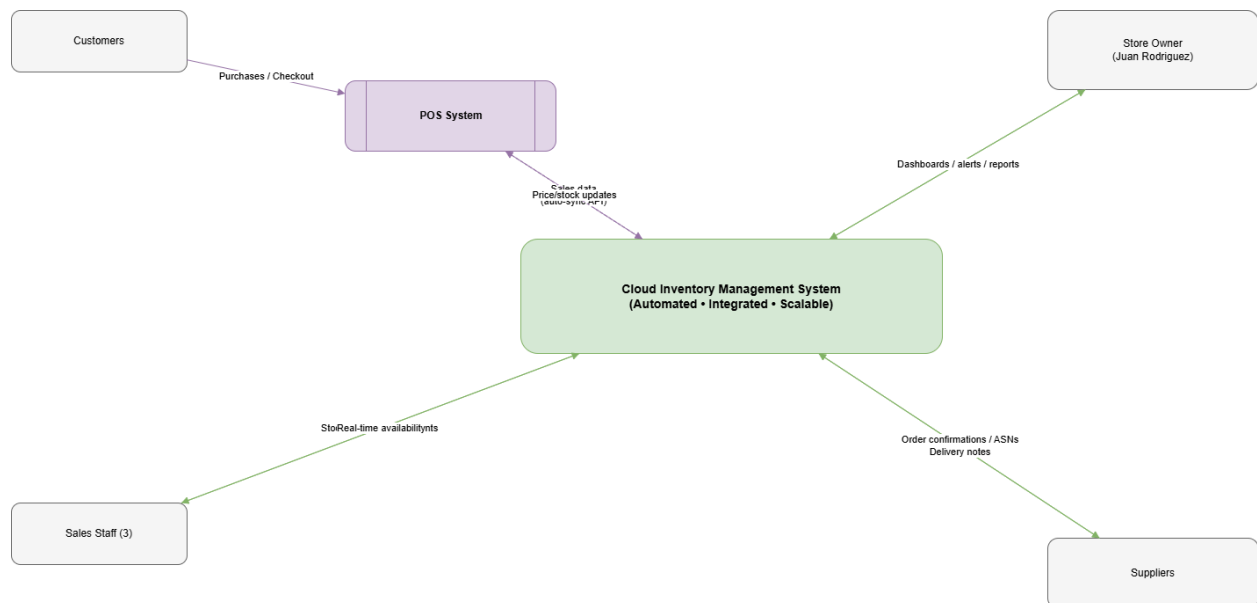
[2] Functional requirements <i>(Provide 3–4 clearly stated functional requirements.)</i>
<ul style="list-style-type: none">• The system must automatically update inventory quantities as sales occur through POS integration.• The system must send automatic notifications to the store owner and staff when stock levels drop below a defined threshold.• The system must allow users to generate and send electronic restock orders directly to suppliers.• The system must generate sales and inventory performance reports, including daily summaries and trend analysis.

[3] Non-functional requirements <i>(Provide 3–4 clearly stated non-functional requirements.)</i>
<ul style="list-style-type: none">• The interface must be simple and intuitive for non-technical users, with minimal training required.• The cloud-based system must ensure at least 99.5% uptime and reliable data synchronization.• All inventory and sales data must be encrypted in transit and at rest, ensuring protection from unauthorized access.

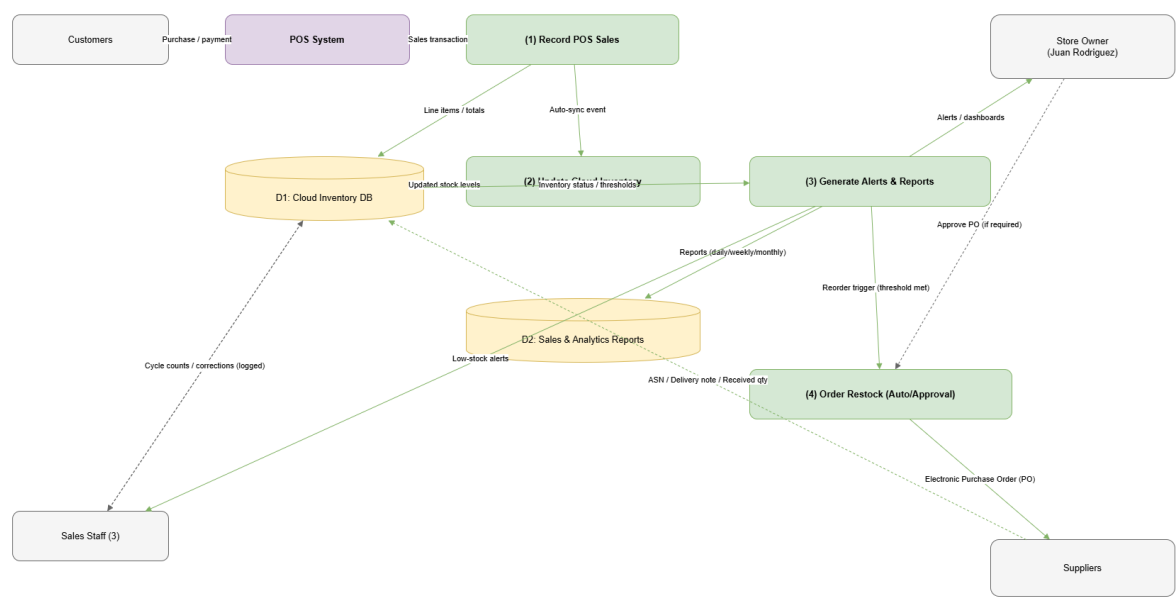
- The system must process transactions and update inventory data in under two seconds per operation.

[4] Future state process flow diagram (Create two fully detailed and clearly labeled future-state diagrams (context diagram and level 1 Data Flow Diagram (DFD) using draw.io. The diagram should illustrate improved workflows, optimization opportunities, and smooth transitions.)

Context Diagram:



Level 1 Data Flow Diagram (DFD):



[5] Recommendations

(Provide a summary of your key findings and recommendations)

The proposed **cloud-based inventory management system** addresses all current inefficiencies by automating updates, providing real-time visibility, and integrating with the POS system. It reduces manual workload, minimizes stockouts, and supports informed decision-making through analytics dashboards. With minimal training required, scalability for future growth, and a budget-friendly cloud model, this solution aligns perfectly with the store's operational and financial goals.