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## **Work Progress Report**

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## **Introduction**

This report summarizes the backend development work I completed today on the **Aby Invento** system, specifically focusing on implementing the **Stock-Out Management** feature and building **Authentication for Employees**. These updates contribute to secure user access and effective inventory reduction tracking.

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## **Key Tasks Completed**

### **Backend – Stock-Out Management**

- Created an endpoint to handle stock-out operations, enabling products to be deducted from inventory.
- Added logic to validate available stock before processing a stock-out request.
- Connected stock-out entries with responsible employees for accountability.
- Ensured real-time update of product quantities after each stock-out action.
- Implemented proper error handling and response structure for failed or invalid stock-out requests.

### **Backend – Employee Authentication**

- Designed and implemented login functionality for employees using secure password verification.
- Integrated role-based access checks to control what each employee can access after authentication.
- Ensured password hashing and secure storage for employee credentials.
- Added checks for inactive or unauthorized employees during login.

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### **What's Next**

- Implement stock-out history tracking and reporting for auditing purposes.
- Build password reset and account recovery features for employee accounts.
- Link employee activity logs to inventory actions for traceability.

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### **Summary**

Today's work involved building essential features to support inventory reduction through **Stock-Out Management** and securing access through **Employee Authentication**. These improvements strengthen both the security and operational reliability of the Aby Invento system.