

# Food Inventory System for IUT Cafeteria

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CSE 4408

Group : 10% SAD

Lab - 02

DATE : 19.05.2025



# ORGANIZATIONAL CONTEXT

02



## Caters to:

- students,
- faculty, and
- staff.



## Manages:

- food preparation
- inventory
- order processing.





## Key Problem:

- Manual inventory tracking



# SYSTEM BOUNDARY DEFINITION

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- In Scope: 
  - Tracking inventory items
  - Recording usage and restocking
  - Generating inventory reports
  - Alerts for low stock
  - Affiliated user roles
- Out of Scope: 
  - Customer order processing
  - Financial accounting
  - Staff attendance or payroll
  - Supplier integration APIs
  - Separate Demand Management

## Rationale:

By narrowing focus to inventory tracking, the system addresses the core issue of stock mismanagement. This allows targeted improvement without overcomplicating the initial solution



# Context-Level Data Flow Diagram (DFD)



## External Entities:

- Cafeteria Manager
- Inventory Staff
- Database
- Notification Service
- Report Viewer



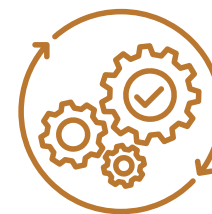
## Cafeteria Manager

- Set stock threshold levels
- Request inventory reports
- Receives alerts
- Receives inventory reports



## Inventory Staff

- Add new inventory items
- Log daily usage
- Receives alerts
- Confirmation of entry



## System

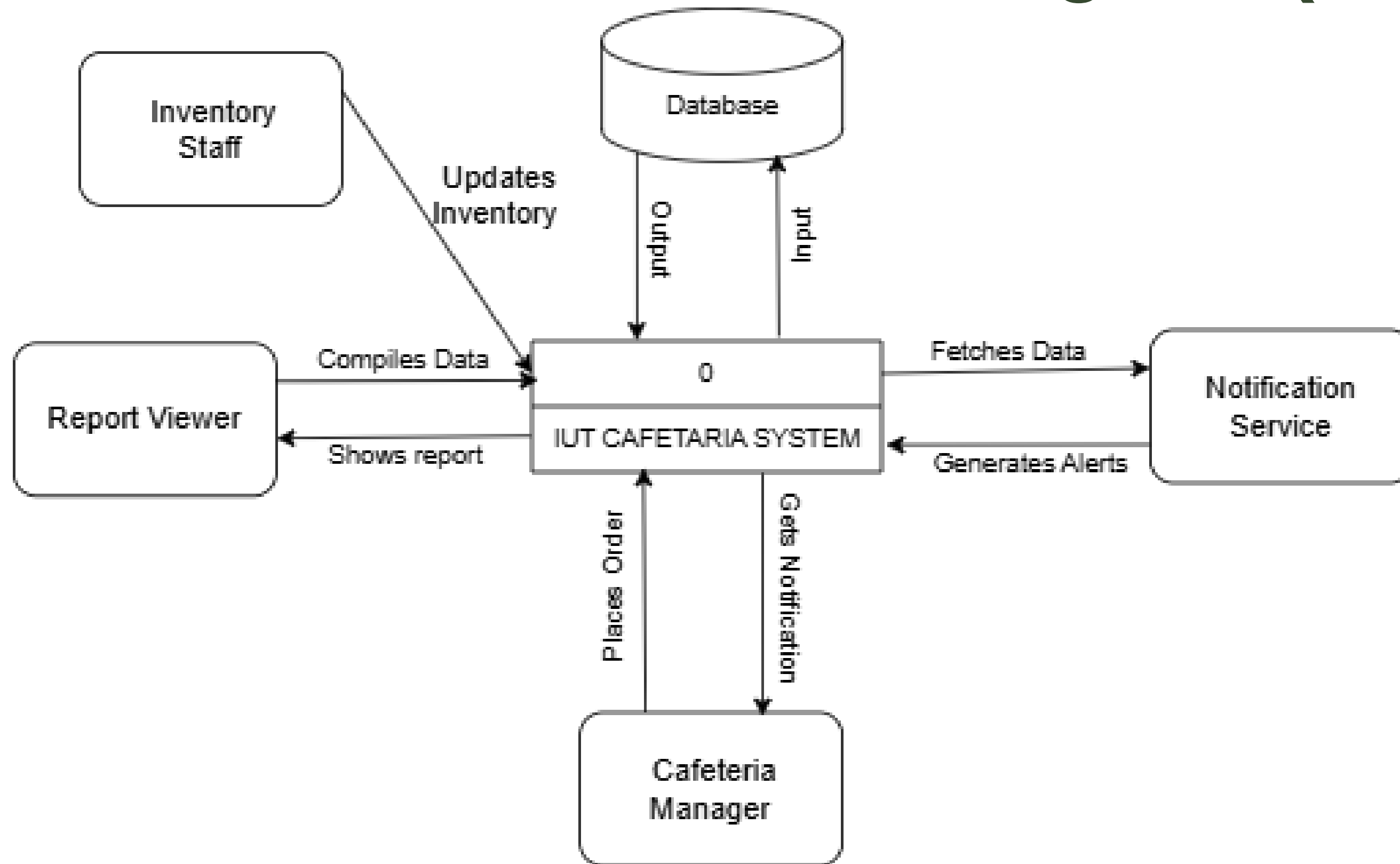
Reads/Writes to:

- Inventory Database
- Calculates necessary parameters

Communicates with:

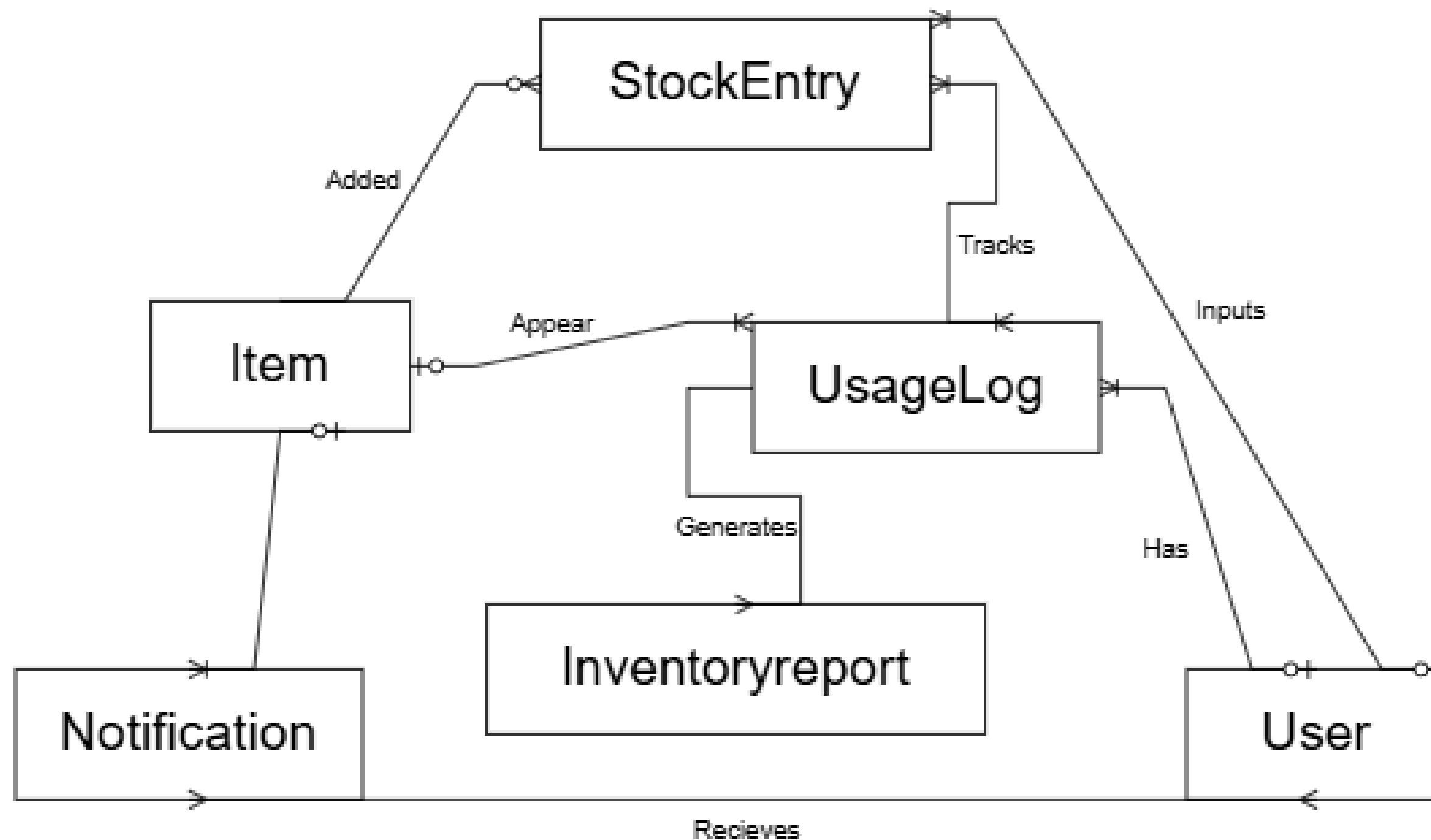
- Notification Service to send alerts
- Report Viewer to generate visual or printed reports

# Context-Level Data Flow Diagram (DFD) 07



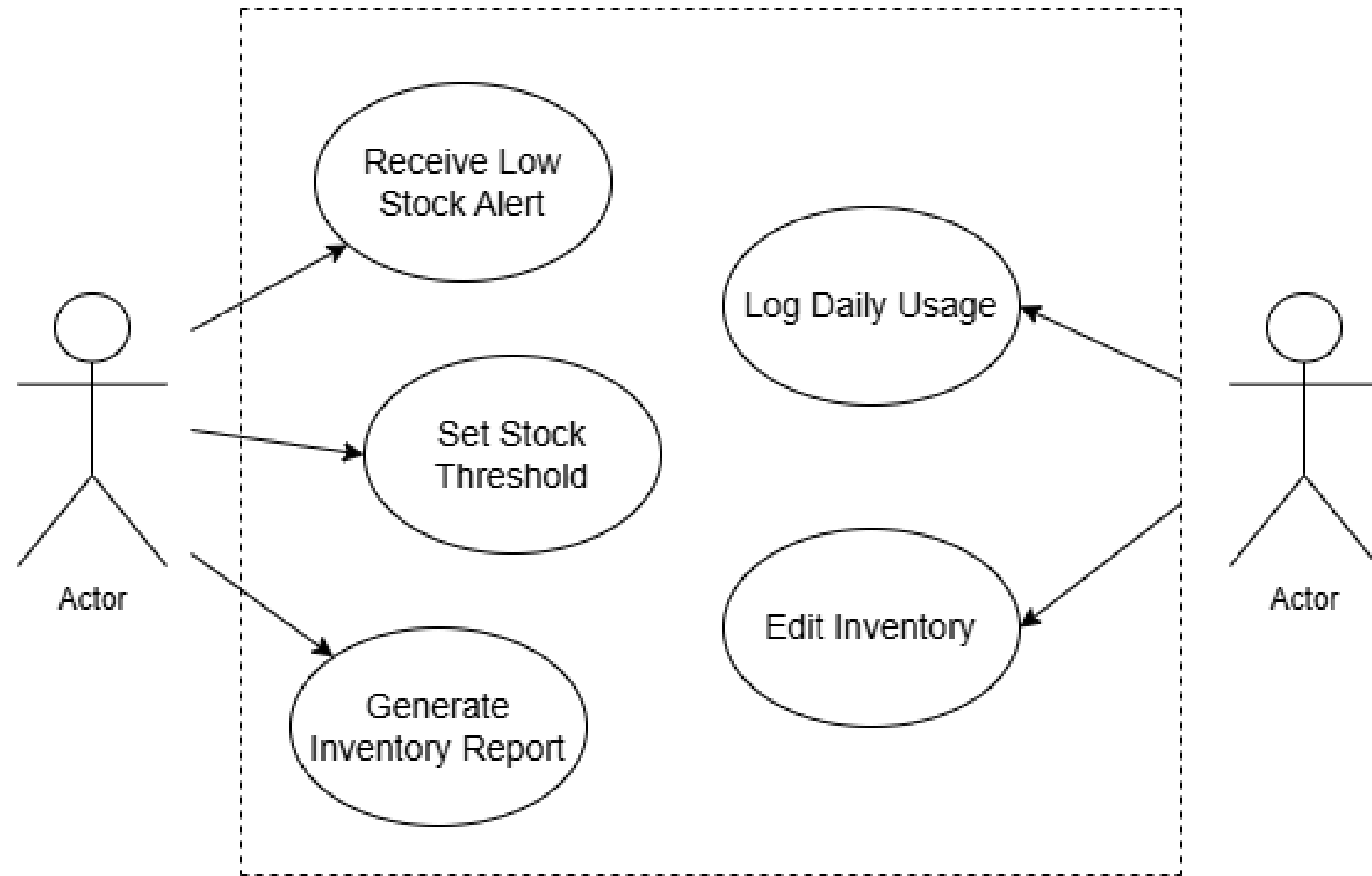
# Preliminary Entity-Relationship (E-R) Diagram

07



# High-Level Use Case Diagram

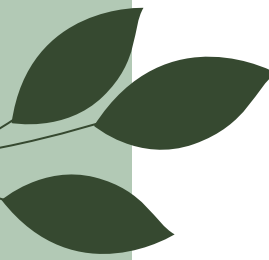
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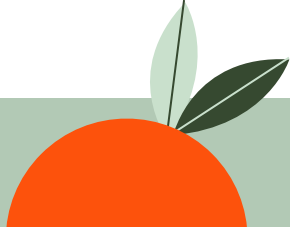
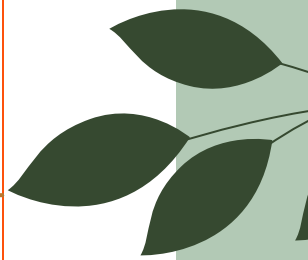
Cafeteria Inventory System

# MANAGEMENT LEVELS AND ORGANIZATIONAL CULTURE ANALYSIS

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Management Level	Information Needed
Operational Staff	Item usage entry, real-time stock levels
Middle Management	Inventory trends, restocking needs
Strategic Management	Monthly reports, wastage summary





# MANAGEMENT LEVELS AND ORGANIZATIONAL CULTURE ANALYSIS

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Maintains Largely informal communication

Employees are accustomed to personal interactions and paper-based records

- Shift requires training and gradual transition

Moderately open to tech



# Thanks!

Do you have any questions?  
Feel free to ask now

## Contributors



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