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FA22 BSE 059

Theory Assignment#1
Software Design and Architecture

Analysis:

Chapter#1

Use Case diagram:

The image wasnt being attached on the same page its on next page.

Grocery Store Inventory Management System

Admin

login / logout

/ <<includes>>

Validate credentials

Employee

Account Management

/ <<includes>>

Create, update, Delete Account

Add item to inventory

/ <<includes>>

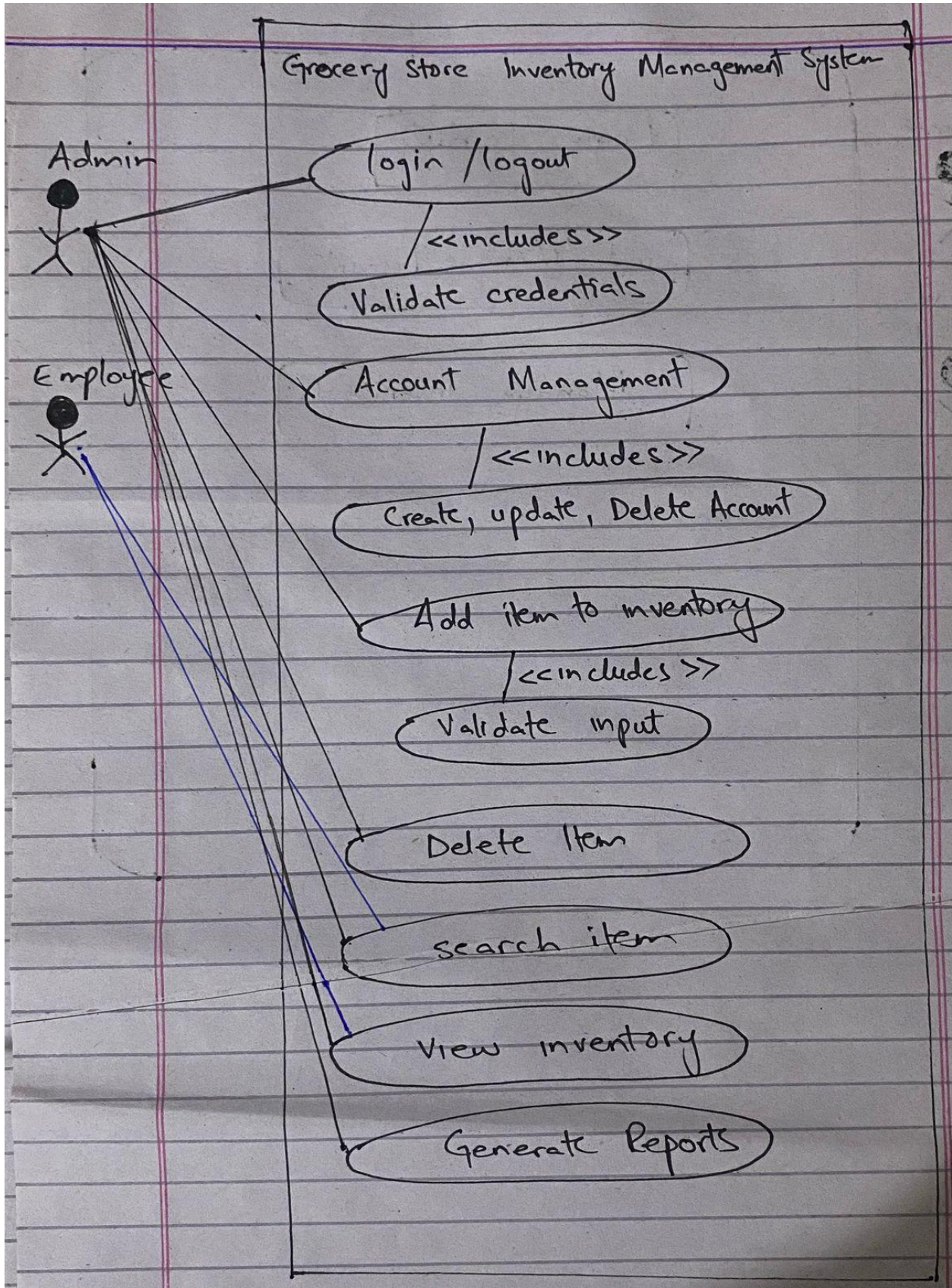
Validate input

Delete Item

search item

View inventory

Generate Reports



Chapter#2:

Fully Dressed Use Case: Login / Logout

Use Case Name:

Login / Logout

Scope:

Inventory Management System for Grocery Store

Level:

User goal

Primary Actor:

Admin, Employee

Stakeholders and Interests:

- Admin / Employee: Want secure access to system functions.
- System: Needs to verify identity and restrict unauthorized access.

Preconditions:

- User has an existing account in the system.
- System is running and ready for interaction.

Postconditions:

- On successful login, user is granted access to authorized functions.
- On logout, the user's session is terminated securely.

Main Success Scenario (Basic Flow):

1. User opens the system and chooses to log in.
 2. System prompts for username and password.
 3. User enters valid credentials.
 4. System validates credentials.
 5. System identifies the user role (Admin or Employee).
 6. System grants access to role-specific features.
 7. User uses the system.
 8. User chooses to logout.
 9. System ends the session and returns to login screen.
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Extensions (Alternative Flows):

3a. Invalid Credentials:

- 3a1. System detects invalid username or password.
- 3a2. System displays error message.
- 3a3. User is prompted to re-enter credentials.
- Return to Step 2.

5a. User Role Not Recognized:

- 5a1. System fails to determine user role.
- 5a2. System displays access denied message.
- 5a3. Session is terminated.

- Use Case ends.

Special Requirements:

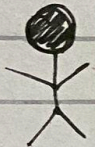
- Passwords must be securely stored (e.g., hashed).
- Login attempts may be limited (optional).
- Session timeout after inactivity (optional).
- UI should clearly distinguish between Admin and Employee post-login.

Diagram of the login/logout on next page:

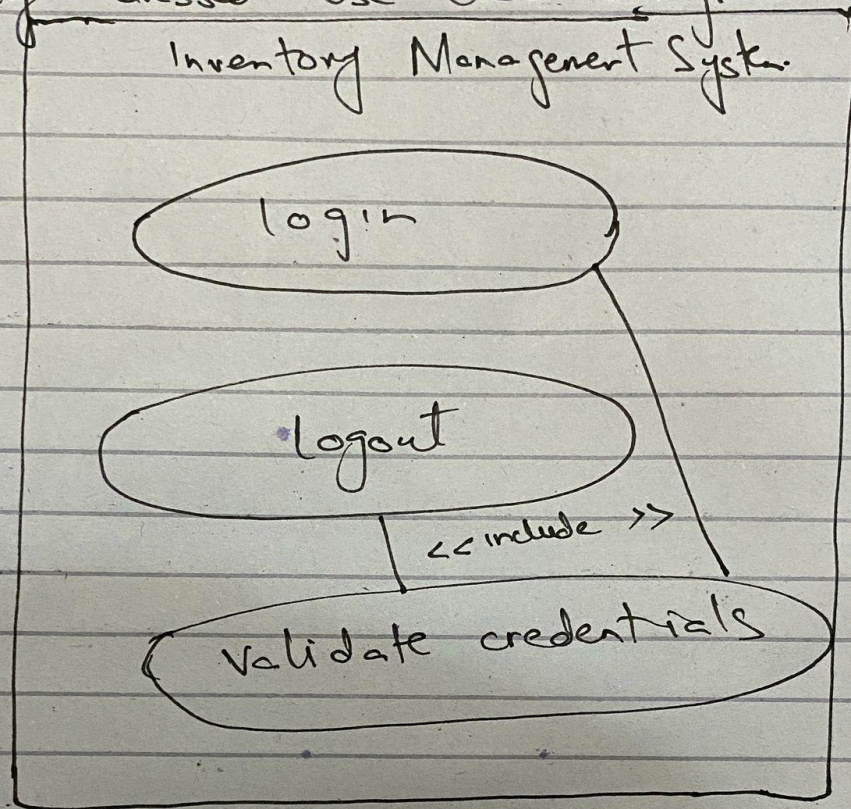
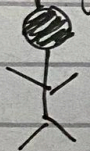
Note: The diagram is attached on next page:

Fully dressed Use Case Diagram Inventory Management System

Admin



employee



Chapter#3 SSD

SSD for login/logout.

