

ASSET CONTROL SYSTEM

Author (s):

- 1. Dinesh Chowdary Guduru
- 2. Aditya Bikki
- 3. Sriyuktha Sakhamuri
- 4. Thanmai Bvsma
- 5. Manvitha Ayinampudi

Major User Stories: Fundamental Features and Authentication

Selected Template: System Analysis Use Case Template

Use Case:

USE CASE NAME:	Fundamental Features and Authentication	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/>
USE CASE ID:	1	
PRIORITY:	High(1)	
SOURCE:	Customer	
PRIMARY BUSINESS ACTOR	User	

PRIMARY SYSTEM ACTOR	Authentication System	
OTHER PARTICIPATING ACTORS:	Database System	
OTHER INTERESTED STAKEHOLDERS:	System Admin	
DESCRIPTION:	This use case describes the implementation of a basic user authentication system including login/logout functionality, secure password handling, and management of asset control with login and logout capabilities.	
PRE-CONDITION:	<ul style="list-style-type: none"> • User has an existing account. • The system is operational and connected to a secure database. • Password encryption is in place. 	
TRIGGER:	The user initiates the authentication process by attempting to log in and also when the user attempts to log out of the system.	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The user navigates to the login place.	Step 2: The system displays the login form.
	Step 3: The user enters a username and password	Step 4: The system encrypts the database.

	Step 5: The user clicks the login button.	Step 6: If the credentials are correct, the system grants access and redirects the user to the asset control system.
	Step 7: The user performs asset control tasks.	Step 8: The system securely manages the assets.
	Step 9: The user clicks the logout button and redirects to the login page.	Step 10: The system logs the user out and redirects to the login page.
ALTERNATE COURSES:	<p>If the user enters an invalid username or password:</p> <ul style="list-style-type: none"> • The system displays an error message and prompts so that the user can retry. <p>If the user forgets their password:</p> <ul style="list-style-type: none"> • The system offers a "Forgot Password" option to reset it via email. 	
CONCLUSION:	Users are able to securely log in, manage assets and log out of the system securely.	
POST-CONDITION:	The user is logged out and the session is terminated. The system maintains user sessions securely until logs out.	
BUSINESS RULES	<ul style="list-style-type: none"> • User passwords must be encrypted before storage. • Multiple failed login attempts should be locked. • Error messages must be displayed for failed login attempts. 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> • Ensure compliance standards for password storage. • Use industry-standard encryption algorithms for password storage. • Ensure secure communication channels like HTTPS. 	

ASSUMPTIONS:	<ul style="list-style-type: none"> • Users have unique usernames and passwords. • The database is secure and accessible. <p>Users are responsible for maintaining the confidentiality of the login credentials</p>
OPEN ISSUES:	<ul style="list-style-type: none"> • Inconsistent authentication workflow. • Inconsistency in maintaining persistence.

Use Case Diagram:

