# CS350 Safehome Project

## Independent Testing

Team 9

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# I. Overview

## 1 Introduction

This document provides a system-level evaluation of peer submissions, identifying requirement-level gaps, missing implementations, and functional bugs through execution and documentation review.

## 2 Goal

The goal is to record auditable defects with references to SRS/SDS expectations to support grading and remediation.

## II. Bug Report

### 1. TEAM 1

#### Missing Implementations(Total: 2)

| | |
|---|---|
| Item | Sensor Trigger Handling Not Implemented |
| Details | Sensor trigger handling code does not exist; sensor events do not transition the system into alarm pipeline. |
| Reference | SRS: Alarm pipeline / sensor trigger use cases; SDS: SensorController/AlarmService components (expected). |
| Reproduction Steps | 1) Start system and log in.<br>2) Navigate to sensor simulation.<br>3) Trigger any sensor.<br>4) Observe no alarm/entry delay transition. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
| Item | Monitoring Service Not Invoked on Panic |
| Details | Panic action does not call monitoring service; monitoring integration missing. |
| Reference | SRS: Monitoring/notification behavior on Panic; SDS: Monitoring integration (expected). |
| Reproduction Steps | 1) Start system.<br>2) Press Panic.<br>3) Observe no monitoring/notification call or log. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

#### Bugs(Total: 8)

| | |
|---|---|
| Item | Environment Setup Crash due to Missing Pillow Dependency |
| Details | requirements.txt is missing Pillow (PIL). Application crashes immediately on startup for new users following the user manual. |
| Reference | User Manual installation steps; implicit requirement: fresh setup must run. |
| Reproduction Steps | 1) Create fresh venv.<br>2) pip install -r requirements.txt.<br>3) Run python main.py. |

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|---|---|
| | 4) Observe ImportError / crash related to PIL/Pillow. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

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|---|---|
| Item | Guest PIN Change Shows Success but Does Not Persist (Silent Failure) |
| Details | UI indicates Guest PIN change succeeded, but value is not saved to database. |
| Reference | SRS: Credential management; implicit requirement: success message implies persistence. |
| Reproduction Steps | 1) Log in.<br>2) Change Guest PIN.<br>3) Restart or re-open settings.<br>4) Confirm PIN unchanged. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
| Item | Simultaneous Master+Guest PIN Change Bypasses Validation and Fails Silently |
| Details | Changing Master and Guest PINs simultaneously bypasses validation; operation fails to save without any error message. |
| Reference | SRS: Credential update flows; implicit requirement: atomic save and validation. |
| Reproduction Steps | 1) Open PIN change UI.<br>2) Enter new Master and new Guest PIN in same action.<br>3) Submit.<br>4) Observe success message but no persistence / inconsistent state. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
| Item | Camera Password Change Flow Verifies New Password Before Current Password |
| Details | System asks for the new camera password before verifying the current password, reversing expected security flow. |
| Reference | SRS: camera credential management; common security practice. |

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|---|---|
| Reproduction Steps | 1) Navigate to camera password settings.<br>2) Attempt change.<br>3) Observe prompt order is new password first. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
| Item | Panic Button Works Even When System is Powered OFF |
| Details | Panic button triggers even when system is powered off, violating expected power-state behavior. |
| Reference | SRS: power states and panic behavior. |
| Reproduction Steps | 1) Power off system.<br>2) Press Panic.<br>3) Observe panic action still executes. |
| Screenshot |  |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
| Item | No Input Length Limits (DoS Vulnerability) |
| Details | User ID, zone name, and password fields accept unlimited length; tested with 10,000+ characters leading to performance instability. |
| Reference | Non-functional requirements: performance; security hardening. |
| Reproduction Steps | 1) Paste 10,000+ chars into User ID or password.<br>2) Submit. |

| | |
|---|---|
| | 3) Observe slowdown / crash risk. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
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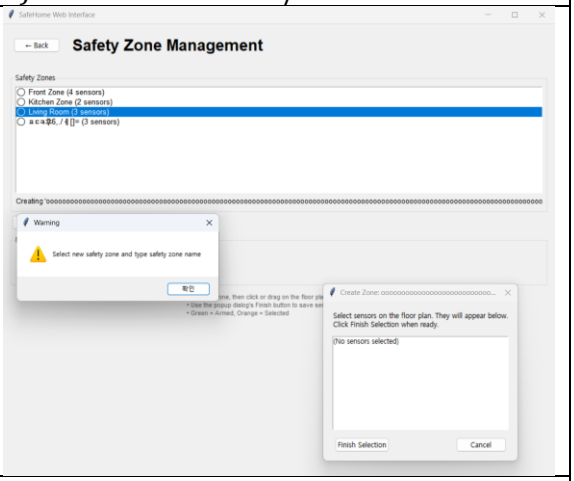
| Details | User ID, zone name, and password fields accept unlimited length; tested with 10,000+ characters leading to performance instability. |
| Reference | Non-functional requirements: performance; security hardening. |
| Reproduction Steps | 1) Paste 10,000+ chars into User ID or password.<br>2) Submit.<br>3) Observe slowdown / crash risk. |
| Screenshot | No image |
| Tester | Team 9 |
| Test Date | 2025-12-04 |

| | |
|---|---|
| Item | UI Layout Overlap (Zone Name) |
| Details | When an excessively long string is entered for a Zone Name, the text area expands beyond its container. This causes the text to overlap and hide the Floor Plan image, preventing users from selecting sensors. |
| Reference | UI/UX Design Guidelines; SRS: Create Safety Zone |
| Reproduction Steps | 1) Paste 10,000+ chars into zone name.<br>2) Submit.<br>3) Observe slowdown / crash risk. |
| Screenshot |  |
| Tester | Team 9 |
| Test Date | 2025-12-18 |

## III. Who Did What & Meeting Log

Primary Evaluation Areas:

- Testing: Minseok Jo
- Documentation: Jonghwa An
- Implementation: Jien Lee

Meeting Log (2025-12-04 19:00–03:00):

The team evaluated Team 1 and Team 8 submissions, focusing on execution failures, input validation issues, and functional gaps against SRS. Critical setup failures (e.g., missing Pillow dependency) and core functional breakdowns (e.g., alarm pipeline failure) were recorded as primary deduction justifications.