

Test Plan
Organizational Alert System

For
CS 895 MSE Project
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Introduction

This document provides the test plan for the Organization-Wide Silent Alert System. Each module of the system will be tested with respect to the enumerated requirements specified in the Vision Document. The tests will be conducted by manually setting the states specified in the following test cases. Following initial testing by myself, two peers will review the system using the provided checklist and relay any deficiencies back to me.

Silent Alert System Critical Requirements

Web API Requirements

- CR1. Each alarm button will trigger an alarm state
- CR2. One button will stop all alarms
- CR3. Users can customize alarm messages
- CR4. Users can see a log of all alarm activity
- CR5. Rest API provides most recent active alarm

Client Requirements

- CR6. Client retrieves active alarm
- CR7. Client displays most-recent active alarm
- CR8. Users can change and store settings

Test Plan

Web API Test Cases

TC1	Trigger alarm state
Test Type	Manual
Pre-Condition	In the database, the active field associated with this alarm is set to 0; Calls to alarms.php API returns well formed XML with 0 results;
Test Steps	Press Alarm Button
Expected Results	In the database, the active field associated with this alarm is set to 1; Each alarm button will change the message and color of on-page notification; Calls to alarms.php API returns well formed XML with only 1 result;
TC2	Stop all alarms
Test Type	Manual

PreCondition	In the database, the active field associated with this alarm is set to 1; Calls to alarms.php API returns well formed XML with 1 result
Test Steps	Press Stop Alarms button.
Expected Results	In the database, the active field associated with this alarm is set to 0; Calls to alarms.php API returns well formed XML with 0 results;
TC3	Customize Alarm Message
Test Type	Manual
Pre-Condition	Alarm is not active;
Test Steps	Go to Customize.php page. Change custom message associated with alarm. Save Changes. Go to SendAlarm.php page. Trigger the alarm with the newly changed message.
Expected Results	In the database, the message field associated with alarm reflects changes made by user; Calls to alarms.php returned well formed XML where message reflects changes made by user;
TC4	See a log of all alarm activity
Test Type	Manual
Pre-Condition	There is some alarm activity stored in database
Test Steps	From sendalarm.php Click on the Notifications button
Expected Results	The page will display a table with all results from the database
TC5	Rest API provides most recent active alarm
Test Type	Manual
Pre-Condition	none
Test Steps	Trigger 3 or 4 alarm buttons Navigate web browser to \resources\alarms.php
Expected Results	Page returns well formed XML with last alarm triggered.

Client Test Cases

TC6	Client will retrieve active alarm
Test Type	Manual
Pre-Condition	One alarm is active
Test Steps	Client is run in debug mode Console output is observed
Expected Results	Console will show active alarm after each query Console will show no errors
TC7	Client shows most recent active alarm
Test Type	Manual
Pre-Condition	Client is running User is logged into Web API
Test Steps	User will trigger Alarm 1 in Web API and observe Client Notification User will trigger Alarm 2 in Web API and observe Client Notification User will re-trigger Alarm 1 in Web API and observe Client Notification
Expected Results	When Alarm 1 is triggered, client will display Alarm 1 Notification When Alarm 2 is triggered, client will display Alarm 2 Notification When Alarm 1 is re-triggered, client will display Alarm 1 Notification.
TC8	Change and store settings
Test Type	Manual
Pre-Condition	None
Test Steps	User will navigate to Settings window in Client User will make changes to the server IP and client name settings User will save the settings User will exit the settings window User will shut down the client User will re-launch the client User will navigate to the Settings window in Client
Expected Results	After closing and re-opening client program, settings will be retained in the Settings windows.