**IEEE-829 Structured Test Cases**

* **Test Case Creator:** Anaum Syed

**Tester Name**: Anaum Syed

**Test Date:** 4/3/2024

**Test Identifier**: TC-001

**Requirements Addressed:** SRS 3.1, 3.2, 4.1

**Prerequisite Conditions:**

* The system is installed and working well.
* All required dependencies are installed. User authentication is set up correctly.

**Test Input:** Valid user code and password.

**Expected Test Results**: After successful authentication, the user should be forwarded to the application's main page.

**Criteria for Evaluating Results:** The authentication procedure should be completed successfully, and the user should be able to access the application's main functions.

**Instructions for Conducting Procedure:**

1. Open the app and go to the login screen.
2. Enter a valid user code and password in the appropriate areas.
3. Click the "Login" button.
4. Make sure the user is sent to the application's main page.
5. Check that all of the primary functions are available and operating properly.

**Features to Be Tested**: User Authentication (UserAuth.java)

* **Test Date:** 4/4/2024

**Test Identifier:** TC-002

**Requirements Addressed:** SRS 3.3, 4.2

**Prerequisite Conditions:**

* The system is installed and working well.
* All required dependencies are installed.
* User authentication is set up correctly.
* Employee management functions have been incorporated.

**Test Input:** Employee management actions, which include adding, searching for, updating, and removing workers.

**Expected Test Results:** Employee management activities should be carried out accurately and without mistakes, and the system should reflect the changes accordingly.

**Criteria for Evaluating Results**: The system should accurately conduct the desired personnel management activities and update the database as needed. Invalid actions should result in suitable error messages.

**Instructions for Conducting Procedure:**

1. Log in to the application using valid credentials.
2. Navigate to the Employee Management section.
3. Perform employee management tasks such as adding, searching, updating, and removing workers.
4. Check that the activities are carried out successfully and that the system reflects the changes appropriately.
5. Check for any error messages or unusual activity.

**Features to Be Tested:** Employee Management (Employee.java)

* **Test Date:** 4/5/2024

**Test Identifier:** TC-003

**Requirements Addressed:** SRS 3.4, 4.3

**Prerequisite Conditions:**

* The system is installed and working well.
* All required dependencies are installed.
* User authentication is set up correctly.
* Equipment management features have been incorporated.

**Test Input:** Equipment management actions include checking in and out equipment, reporting losses, and examining inventories.

**Expected Test Results:** Equipment management operations should be carried out accurately without mistakes and the system should reflect the changes accordingly.

**Criteria for Evaluating Results:** The system should accurately conduct the desired equipment management activities and update the database as needed. Invalid actions should result in suitable error messages.

**Instructions for Conducting Procedure:**

1. Log in to the application using valid credentials.
2. Navigate to the Equipment Management section.
3. Perform numerous equipment management tasks, such as checking in and out equipment, reporting losses, and searching inventories.
4. Check that the activities are carried out successfully and that the system reflects the changes appropriately.
5. Check for any error messages or unusual activity.

**Features to Be Tested:** Equipment Management (Equipment.java)

* **Test Date:** 4/6/2024

**Test Identifier:** TC-004

**Requirements Addressed:** SRS 3.5, 4.4

**Prerequisite Conditions:** The system is installed and working well. All required dependencies are installed. User authentication is set up correctly. User authentication features have been implemented.

**Test Input:** Valid and invalid user authentication attempts.

**Expected Test Results:** User authentication should accurately authenticate user credentials and limit access to authorized users only.

**Criteria for Evaluating Results:** The system should properly authenticate valid users while denying access to invalid users. Invalid authentication attempts should result in suitable error notifications.

**Instructions for Conducting Procedure:**

1. Log in to the application using valid credentials.
2. Check sure access is given to authorized users.
3. Attempt to log in using incorrect credentials.
4. Check that access is prohibited to unauthorized users and that suitable error messages are shown.

**Features to Be Tested:** User Authentication (UserAuthentication.java)

* **Test Date:** 4/7/2024

**Test Identifier**: TC-005

**Requirements Addressed:** SRS-REQ-4.2, SRS-REQ-5.1, SRS-REQ-5.2, SRS-REQ-5.3 **Prerequisite Conditions:** The user must log in and have access to the equipment management system.

**Test Input:** Equipment ID (e.g., "APM-1")

**Expected Test Results:** The system marks the equipment "APM-1" as lost, and a report is created that includes all lost equipment, including "APM-1."

**Criteria for Evaluating Results:** The system should accurately change the equipment's status to "lost" when the user enters the equipment ID. The report should contain "APM-1" in the list of missing equipment. When requested, save the report as a .txt file.

**Instructions for Conducting Procedure:**

1. Log into the equipment management system.
2. Navigate to the "Report Lost Equipment" section.
3. Click the "Report Lost Equipment" button.
4. Enter the equipment ID "APM-1" into the designated field.
5. Click "Confirm" to report the equipment as lost.
6. Navigate to the "Reports" tab.
7. Click the "Generate Lost Equipment Report" button.
8. Select the generated report.
9. Click the "Print" option to save the report as a.txt file.

**Features to Be Tested:** Reporting missing equipment, creating a report on lost equipment, and saving the created report.