Bun Talk Business

(Automation System)

Test Plan Documentation

Prepared by: Trishan Kanishka

**Prepared for**

**CSE 4002 Fundamentals of Programming**

**International College of Business & Technology**

**Bun Talk Business**

[1. Test Plan 3](#_Toc145594339)

[1.1 Purpose 3](#_Toc145594340)

[1.2 Scope 3](#_Toc145594341)

[1.3 Test Objectives 3](#_Toc145594342)

[1.4 Test Environment 3](#_Toc145594343)

[1.5 Test Schedule 3](#_Toc145594344)

[2. Test Cases Criteria 4](#_Toc145594345)

[2.1 Authentication Testing 4](#_Toc145594346)

[2.2 Menu Display Testing 4](#_Toc145594347)

[2.3 Billing Testing 4](#_Toc145594348)

[2.4 Help and Exit Testing 4](#_Toc145594349)

[2.5 Non-Functional Testing 5](#_Toc145594350)

[3. Acceptance Test and User Feedback (Assumption) 5](#_Toc145594351)

[3.1 Acceptance Test 5](#_Toc145594352)

[User Questionnaire (Sample Questions) 5](#_Toc145594353)

[4. Testing Conclusion and Recommendations 6](#_Toc145594354)

[4.1 Conclusion 6](#_Toc145594355)

[Test Results Summary 6](#_Toc145594356)

[4.2 Recommendations 6](#_Toc145594357)

[5. References 7](#_Toc145594358)

# Test Plan

## Purpose

The purpose of this document is to outline the testing strategy and procedures for the Bun Talk Automation System. This includes unit testing, integration testing, and acceptance testing. It aims to ensure that the software meets its functional and non-functional requirements, is free of defects, and satisfies user expectations.

## Scope

This test plan encompasses a range of testing activities, including unit testing, integration testing, and acceptance testing. It covers both the functional aspects of the system, such as user authentication, menu display, and billing, as well as non-functional aspects like usability, and security.

## Test Objectives

The primary objectives of this testing effort are as follows:

* Verify the correctness of user authentication by ensuring that valid users can access the system while invalid users are denied access.
* Validate the accurate display of breakfast items, including proper categorization and item details presentation.
* Confirm the system's ability to calculate bills correctly, taking into account selected items and quantities.
* Evaluate the usability of the system's interface and accessibility of help information.
* Assess the performance of the system under typical usage conditions, ensuring responsiveness and efficiency.
* Conduct security testing to identify and rectify vulnerabilities, particularly concerning user authentication and data protection.

## Test Environment

* Operating System: Windows 10
* Hardware: minimum 2gb ram and 1gb hard space.
* Testing Tools: Manual testing

## Test Schedule

* Test Start Date: [9/12/2023]
* Test End Date: [9/15/2023]

# Test Cases Criteria

## 2.1 Authentication Testing

1. **Test Case 1:** Valid Login

Input: Valid username and password

Pass Criteria: The system successfully logs in the user with valid credentials.

Fail Criteria: The system denies access to users with invalid credentials.

1. **Test Case 2:** Invalid Login

Input: Invalid username and/or password

Pass Criteria: The system denies access to users with invalid credentials.

Fail Criteria: The system incorrectly grants access to users with invalid credentials.

## 2.2 Menu UI Testing

1. **Test Case 3:** Display Breakfast Items

Input: Select "Display Breakfast Items" from the main menu

Pass Criteria: The menu displays correctly, including item names, prices, and descriptions.

Fail Criteria: The menu does not display as expected.

## 2.3 Billing Testing

1. **Test Case 4:** Calculate Bill

Input: Select items from the menu, choose "Print Bill"

Pass Criteria: The bill is accurate, considering selected items and quantities.

Fail Criteria: The bill contains errors or inaccuracies.

## 2.4 Help and Exit Testing

1. **Test Case 5:** Help Functionality

Input: Select "Help" from the main menu

Pass Criteria: The help information is accessible and informative.

Fail Criteria: The help information is not displayed or is not helpful.

1. **Test Case 6:** Exit Functionality

Input: Select "Exit" from the main menu

Pass Criteria: The application successfully exits without errors.

Fail Criteria: The application does not exit as expected.

## 2.5 Non-Functional Testing

1. **Test Case 7:** Usability Testing

Input: Use the application and evaluate its user-friendliness

Pass Criteria: Users find the application easy to use and navigate.

Fail Criteria: Users encounter difficulties or confusion when using the application.

1. **Test Case 8:** Security Testing

Input: Attempt to log in with incorrect credentials

Pass Criteria: The system effectively prevents unauthorized access and maintains data security.

Fail Criteria: Unauthorized users can gain access or exploit vulnerabilities.

# Acceptance Test and User Feedback (Assumption)

## Acceptance Test

**Acceptance Criteria**

The system has passed all test cases mentioned in the test plan. The system will meet performance, usability, and security expectations.

**Please refer the Excel sheet to observe test cases**.

## User Questionnaire (Sample Questions)

Tick a checkbox as per your experience.

1. Did the system allow you to log in successfully?

* Yes
* No

1. Was it easy to find and select breakfast items from the menu?

* Yes
* No

1. Did the system calculate the bill correctly?

* Yes
* No

1. Was the help information helpful and easily accessible?

* Yes
* No

1. Were you able to exit the application as desired?

* Yes
* No

# Testing Conclusion and Recommendations

## 4.1 Conclusion

The testing of the Bun Talk Automation System has been completed, encompassing various aspects of the application, including user authentication, menu display, billing, help, exit, and admin login and item addition. The testing process yielded the following observations and conclusions.

## Test Results Summary

* **User Authentication**: The system successfully authenticates users with valid credentials and denies access to users with invalid credentials.
* **Menu Display**: The menu consistently displays breakfast items correctly, including categorization and item details.
* **Billing**: The billing functionality accurately calculates the total cost of selected items as expected, and generates correct itemized bills.
* **Help and Exit Functionality**: The help information is accessible and informative, and users can exit the application as desired.
* **Admin Login**: Admins can log in with valid credentials, and the system correctly handles invalid login attempts.
* **Item Insertion**: Admins can add new bakery items to the database, and the system prevents item addition with missing details.

## Recommendations

The Bun Talk automation system can further enhance its performance, security, and usability, ensuring a reliable and user-friendly experience for both customers and administrators. Continued monitoring and improvement efforts will contribute to the system's long-term success.

**Usability Enhancements:** Continue to gather user feedback and conduct usability testing. Use this feedback to make incremental improvements to the user interface, making it even more intuitive and user-friendly.

**Help Information Updates:** Periodically review and update the help information based on user feedback and evolving user needs. Ensure that it remains relevant and useful for users seeking assistance.

**Admin Management Features:** Consider adding features for admin user management, such as the ability to reset passwords, manage user roles, and view activity logs. This would enhance admin control over the system

**Documentation:** Maintain comprehensive system documentation, including user guides and admin manuals, to assist users in using the system effectively.

# 5. References

|  |  |
| --- | --- |
| [1] | A. A. R. Aini Najwa Raside, "Development of Online Bakery shop web application(e-Bakery)," [Online]. Available: https://publisher.uthm.edu.my/periodicals/index.php/aitcs/article/view/3913. |
| [2] | " Bakery Technology, 06 ways to boost bakery business," [Online]. Available: https://www.bluecart.com/blog/bakery-technology. |
| [3] | "BakerPedia.com blogPosts," [Online]. Available: https://bakerpedia.com/what-is-bakery-software/. |