**System Test Plan**

**For**

**ERAU Eagle Wallet**

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# 1. Introduction

## 1.1 Purpose

This document is a test plan for the ERAU Eagle Wallet testing, produced by the System Testing team. It describes the testing strategy and approach to testing the team will use to verify that the application meets the established requirements of the customer prior to release.

## 1.2 Objectives

The objectives for testing the simulation are:

* Test all acceptance criteria specified in the project’s SRS document.
* Test integration of all system modules.
* Satisfies the criteria outlined in the project vision statement.

# 2. Functional Scope

The requirements in the scope of testing for the Eagle Wallet include:

|  |  |
| --- | --- |
| Requirement | Description |
| F1 | The user shall be able to create an account with a unique username and password that meets NIST password standards. |
| F2 | The program shall show the account balance in the homepage. |
| F3 | The program shall allow the user to enter their credit card information or add their Google Pay. |
| F4 | The program shall allow users to use a saved payment method to purchase additional dining dollars and eagle dollars. |
| F5 | The program shall allow the user to view their balance of sodexo bucks, dining dollars, eagle dollars, and meal plans. |
| F6 | The system shall refill all active meal plans to maximum capacity at 00:01 every Sunday. |
| F7 | The System shall allow the user to login using biometrics once their account has been created |
| F8 | The System shall decrease the used amount from the appropriate account when a purchase is made |
| HF1 | The user shall be able to make an account |
| HF2 | The user shall be able to login with correct credentials for a previously existing account. |
| HF3 | The user shall be able to add payment methods |
| HF4 | The user shall be able to remove a payment method |
| HF5 | The user shall be able to view their account balance |
| HF6 | The user shall be able to view their account transactions |
| HF7 | The user shall be able to turn on NFC |
| HF8 | The user shall be able to turn off NFC |
| HF9 | The system shall display a success screen when a successful transaction occurs. |
| HF10 | The system shall display a failure screen when a failed transaction occurs. |
| HF11 | The user shall be able to alter their account information |
| HF12 | The user shall be able to logout from their account |
| HF13 | The user shall be able to upload a picture to their profile |

# 3. Overall Strategy and Approach

## 3.1 Testing Strategy

Eagle Wallet Testing will include testing of all functionalities that are in scope (Refer to Functional Scope Section) identified. System testing activities will include the testing of any new or modified functionalities. This includes, but is not limited to, Android Studios, user interfaces, Backend database

## 3.2 System Testing Entrance Criteria

In order to start system testing, certain requirements must be met for testing readiness. The readiness can be classified into:

* Module compliance with specified system design criteria as outlined in the project’s System Design Document
* Module evaluation as complete from all developers involved in work
* Code review and approval from all members of the team

## 3.3 Testing Types

### 3.3.1 Usability Testing

User interface attributes, cosmetic presentation and content will be tested for accuracy and general usability. The goal of Usability Testing is to ensure that the User Interface is functional and provides the user with consistent and appropriate access and navigation through the functions of the application

### 3.3.2 Functional Testing

The objective of this testing is to ensure that each element of the component meets the functional requirements of the customer as outlined in the following sections of the project’s SRS:

* [Functional Requirements](https://docs.google.com/document/d/1OrtbVfPCt8Wtusz_93U02ICh25k6fr7iR1zvU9yq8hY/edit#heading=h.hiwtdbcsidte)
* [User and Human Factors Requirements](https://docs.google.com/document/d/1OrtbVfPCt8Wtusz_93U02ICh25k6fr7iR1zvU9yq8hY/edit#heading=h.24xogj971hg5)

## 3.4 Suspension Criteria and Resumption Requirements

### 3.4.1 Suspension Criteria

Testing will be suspended if the incidents found will not allow further testing of the system/application under-test. If testing is halted, and changes are made to the software, it is up to the Testing Manager to determine whether the test plan will be re-executed or part of the plan will be re-executed.

### 3.4.2 Resumption Requirements

Resumption of testing will be possible when the functionality that caused the suspension of testing has been retested successfully or the functionality under test has been removed from the iteration.

# 4. Execution Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Activities | Task | Owner | Date |
| Plan the test process and map test to requirements | F1-F8 | Tyler Wise & Will Edwards | 3/20/2021 |
| Plan the test process and map test to requirements | HF1-HF13 | Joe Moran | 3/26/2021 |
| Execute tests | F1-F8 | Will Edwards | 3/20/2021- 3/25/2021 |
| Execute tests | HF1-HF13 | Michael Fornito | 3/28/21- 4/5/21 |
| Track the tests and test results | F1-F8 | Will Edwards | 3/20/2021- 3/25/2021 |
| Track the tests and test results | HF1-HF13 | Michael Fornito | 3/28/21- 4/5/21 |

# 5. Traceability Matrix & Defect Tracking

## 5.1 Traceability Matrix

This list of requirements and corresponding test cases are enumerated in greater detail in the project’s SRS document. Inclusion of this list as part of the test plan is for

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement/Test Case Number | Description | Pass/Fail | Notes |
| F1 | The user shall be able to create an account with a unique username and password that meets NIST password standards. | Pass | 3/23/21 - Will |
| F2 | The program shall show the account balance in the homepage. | Pass | 3/29/21 - Joe |
| F3 | The program shall allow the user to enter their credit card information or add their Google Pay. |  | Still in progress for this sprint |
| F4 | The program shall allow users to use a saved payment method to purchase additional dining dollars and eagle dollars. |  | Still in progress for this sprint |
| F5 | The program shall allow the user to view their balance of sodexo bucks, dining dollars, eagle dollars, and meal plans. |  | Still in progress for this sprint |
| F6 | The system shall refill all active meal plans to maximum capacity at 00:01 every Sunday. |  | Still in progress for this sprint |
| F7 | The System shall decrease the used amount from the appropriate account when a purchase is made |  | Still in progress for this sprint |
| HF1 | The user shall be able to login with correct credentials for a previously existing account. | Pass | 3/28/21- Michael and Will |
| HF2 | The user shall be able to add payment methods | Pass | 3/28/21 -Michael and Will |
| HF3 | The user shall be able to remove a payment method |  | Still in progress for this sprint |
| HF4 | The user shall be able to view their account balance |  | 3/29/21 - Joe |
| HF5 | The user shall be able to view their account transactions |  | Still in progress for this sprint |
| HF9 | The system shall display a success screen when a successful transaction occurs. |  | Still in progress for this sprint |
| HF10 | The system shall display a failure screen when a failed transaction occurs. |  | Still in progress for this sprint |
| HF11 | The user shall be able to alter their account information |  | Still in progress for this sprint |
| HF12 | The user shall be able to logout from their account | Pass | 4/2/2021 - Mike |
| HF13 | The user shall be able to upload a picture to their profile | Pass | 3/29/2021 - Joe |
| HF 14 | The user shall have a warning message displayed for incorrect login | Pass | 3/28/2021 - Mike and Will |

## 5.2 Defect Severity Definitions

|  |  |
| --- | --- |
| **Critical** | The defect causes a catastrophic or severe error that results in major problems and the functionality rendered is unavailable to the user. A manual procedure cannot be either implemented or a high effort is required to remedy the defect. Examples of a critical defect are as follows:   * Password encryption failure |
| **Medium** | A defect that does not seriously impair system function can be categorized as a medium Defect. A manual procedure requiring medium effort can be implemented to remedy the defect. Examples of a medium defect are as follows:   * User information is not displayed correctly |
| **Low** | The defect is cosmetic or has little to no impact on system functionality. A manual procedure requiring low effort can be implemented to remedy the defect. Examples of a low defect are as follows:   * Documentation does not match intended functionality |

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# 6. Environment

* The System Testing Environment shall be used for System Testing.
* The System Testing Environment shall meet all minimum system/resource requirements.
* The System Testing Environment shall be observable by all System Testing Team Members.
* All development team members shall be a member of the System Testing Team for requirements they have participated in.

# 7. Assumptions

* The testing of the System assumes that all system requirements are satisfied.
* The testing of the System assumes that Android 8.0 is being used

# 8. Risks and Contingencies

There are no risks of physical damage to the System or System Testing Environment equipment. There is a risk of system modules failing to meet testing criteria. The contingency for this is to redirect development resources to the most prioritized action items as defined by the Testing Manager and Scrum Master.