**Carbon Android App**

**TEST PLAN**

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# DOCUMENT CONTROL

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Title: | Carbon Android App Test Plan | | | | | | | |
| Status: | Final | | | | | | | |
| File Name: | Carbon Android App Test Plan\_v1.0 | | | | | | | |
| Author: | Bruno Okhueleigbe | | | | | | | |
| Approver for Use: | | | | | | | | |
| Name | | Role | | Date | | Version | | Signature |
| Emilio Vacca | | Chief Technology Officer | | **30/09/2019** | | **1.0** | |  |
| Contributors: | | | | | | | | |
| Name | | | Role | | | | Version | |
|  | | |  | | | |  | |
| Reviewers: | | | | | | | | |
| Name | | | Role | | Version | | | |
|  | | |  | | **1.0** | | | |

**Change History**

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Summary of changes | Authors |
|  |  |  |  |

**Systems/Department**

|  |  |  |
| --- | --- | --- |
| Name | Area | Date |
|  |  |  |
|  |  |  |

**References**

|  |  |
| --- | --- |
| **Doc. Reference** | **Document Title** |
| 1 |  |
| 2 |  |
| 3 |  |

# INTRODUCTION

## Overview

The carbon application is a finance application that allows users to control their finances with a few clicks. It has various advantages which includes getting instant short loans for urgent needs, checking credit reports of users, invest money for its customers to earn high-interest, recharge airtime on the customers mobile phone and make bill payments for services.

This Change Request introduces the functionality for users to credit/fund their wallet through the use ATM card.

Further to this, the Quality Assurance Team would be validating the implementation that it suits the customer requirements before deployment.

# SCOPE OF TESTING

The scope of this change request is testing the credit wallet functionality of the Carbon Android App.

## In-scope

In scope for this CR (Automated)

* All unit testable code
* Android App Compactible
* All API features
* Load test

In scope for this CR (systems and QA tools)

* Postman
* Jmeter
* Appium
* Test Management tool (e.g jira, confluence etc)
* Systems (Interconnecting systems)
* Stach/Git

## Out of Scope

* All 3rd party systems not mentioned
* Other nodes not connected to this application flow.

# TEST APPROACH

## System Testing

The objective of System Integration Testing is to establish confidence that the below features in the carbon app can interpolate successfully with connecting nodes and ensuring that there is a data handshake between the data base and all nodes concerned. This is designed to validate and that it meets compliance with its specified requirements.

Execution of System test cases will ensure that the credit wallet, filter transaction and recharge airtime of the carbon app delivers the functional and non-functional requirements necessary to support the business needs.

During System Testing, the user will sign in to the carbon android app using a registered phone number of the user, PIN and verification code successfully. It will also be validated during the test that all invalid data (PIN, verification code and phone number) inputted during sign in will not be successful thus not permitting unauthorized users to sign in.

Upon successful sign in, the user will be able to view the dashboard with all modules (such as dashboard, fund wallet, withdraw, transactions, buy airtime etc) displaying appropriately. User will carry out wallet funding by selecting the selecting option to fund the wallet from i.e ‘fund with bank transfer’ or ‘fund with debit/ATM card’. When the user selects the appropriate option (fund with debit/ATM card), user can fund wallet by inputting the appropriate amount and proceed for payment.

Negative scenario will be carried out to ensure with insufficient debit/ATM card balance cannot successfully fund a wallet, this will be validated by initiating wallet funding using a debit/ATM with an insufficient amount (i.e. funding the wallet with an amount greater than the balance in the debit card), this will fail, and notification will be sent to the user for failed transaction. After successfully funding the wallet, it will be checked on the database that the user is credited and notification for successful transaction is gotten by the user via phone.

Successful airtime recharge will be validated by performing airtime recharge via debit/ATM card, the user will select the phone number or contact in which the airtime is to be credited from either the list of phone contacts, by inputting the phone number in the input field or selecting the phone number from the list of recently credited users. Transactions to be carried out can be saved under the ‘saved payment’ field and given a name. After this has been done, the user will initiate the debit from the user wallet or debit/ATM card successfully and user will be credited successfully.

A negative scenario will be carried out to ensure that only user with sufficient balance in the wallet account or debit/ATM card will be credited airtime to the phone number inputted successfully, also wrong inputted service provider name against the phone number will be validated and the appropriate error message will be displayed.

The subscriber/recipient phone that received airtime will be checked for the below notifications:

* + Notification of successful recharge
  + Notification of failed recharge due to insufficient airtime or system failure
  + Notification for selecting the wrong service provider against the phone number

Transactions performed by the user can be viewed successfully by clicking on the transaction module and filtering by the date, airtime and wallet transaction successfully.

# REQUIREMENTS

The following requirements have been identified for this Test

* Test Data i.e. ATM Card, Phone number, PIN
* Android phone
* Carbon app apk
* Stable test environment

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# TEST SCHEDULE

The table below shows the test schedule which governs the test effort showing test tasks and milestones.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Duration | Start Date | Finish Date |
| Creating of Test Plan doc, Review of Supporting Document, Designing Test cases | **1 Day** | **27/09/2019** | **28/09/2019** |
| 1st iteration Test Execution | **2 Days** | **29/09/2019** | **30/09/2019** |
| Defect Resolution, Retest and Regression |  |  |  |
| 2nd iteration Test Execution |  |  |  |

## 

# APPENDICES

|  |  |
| --- | --- |
| **S/N** | **TEST CONDITIONS** |
|  | To ensure that the carbon android app can be downloaded seamlessly (or run as a background job) |
|  | To ensure that a user with a valid phone number and valid PIN can be prompted to input their verification code successfully |
|  | To ensure that a user with an invalid phone number and valid PIN is not prompted to input their verification code when signing in |
|  | To ensure that a user with a valid phone number and an invalid PIN is not prompted to input their verification code when signing in |
|  | To ensure that a user with an invalid phone number and PIN is not prompted to input their verification code when signing in |
|  | To ensure that a user with an invalid verification code cannot signing to the carbon android app |
|  | To ensure that a user with a valid verification code can signing to the carbon android app |
|  | To ensure that on signing in, the dashboard of the application displays |
|  | To ensure that wallet times out after some mins of no activity |
|  | To ensure that a valid debit/ATM card can be added successfully |
|  | To ensure that an invalid debit/ATM card cannot be added successfully |
|  | To ensure that an already added card cannot be added again |
|  | To ensure that after the amount inputted when a user wants to find the wallet cannot be less than zero |
|  | To ensure that previously inputted amount is not displayed when a user wants to initiate a new transaction |
|  | To ensure that after the pay button has be clicked, the user can successfully enter its PIN can fund wallet successfully |
|  | To ensure that after the pay button has be clicked, the user can successfully enter an invalid PIN cannot fund wallet successfully |
|  | To ensure that the amount on the user’s debit/ATM card is enough to fund the wallet successfully |
|  | To ensure that the user account is not funded twice for a successful transaction |
|  | To ensure that the appropriate error message is displayed for a failed funding (in the case of insufficient balance on the debit/ATM card) |
|  | To ensure that the appropriate error message is displayed for failed funding (in the case of network issues) |
|  | To ensure that after successfully funding the wallet, the balance on the user profile increases i.e the funded amount is added to the previous amount on the user’s profile |
|  | To ensure that a user can view all transactions made successfully |
|  | To ensure that user can view only the transactions made successfully |
|  | To ensure that user can view that view transactions he made by filtering the transactions according to date range |
|  | To ensure that only transactions for the selected date range displays successfully when filtered |
|  | To ensure that the date before selected is less than after date selected for successful transaction display |
|  | To ensure that the transactions displayed is in the appropriate format |
|  | To ensure that a user can select the recharge with airtime successfully on the dashboard |
|  | To ensure that a user can select a phone number from list of recent transactions in other to buy airtime |
|  | To ensure that user can input a phone number in other to buy airtime successfully |
|  | To ensure that a user can select the amount of airtime to purchase successfully |
|  | To ensure that a user can save the payment successfully |
|  | To ensure that a user can use the card option to pay for the airtime recharge |
|  | To ensure that a user can select its funded wallet to pay for the airtime recharge |
|  | To ensure that if a user selects an invalid network with a valid phone number, funding is not successful |
|  | To ensure that a user can select a phone number from the list of contacts on his/her mobile phone successfully for airtime recharge |
|  | To ensure that after a successful recharge, the debit/ATM card balance decreases while recharge is given to the user |
|  | To ensure that after successful recharge, the wallet balance decreases while the recharge is given to the user |
|  | To ensure that airtime credited can be viewed successfully on the respective database (To avoid data been mocked) |
|  | To ensure that transaction for the airtime recharge can be viewed by the user on the transactions module |
|  | To ensure that the user gets notification for a successful recharge |