*ChangeLog*

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Change Date** | **By** | **Description** |
| v8a | 28th April 2021 | Peter Abah | First Release Bundle Billable Hours Invoicing System TestPlan |
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# Introduction

This Test Plan is designed to describe the scope, approach, resources and schedule of all testing activities for the project Bundle Billable Hours Invoicing System.

This plan identifies the items to be tested, the features to be tested, the types of testing to be performed and the personnel responsible for testing.

This test plan serves many important purposes. It lays the groundwork for the application testing and ensures that all aspects of testing have been considered. Also, the test plan serves as a communication mechanism to all project stakeholders describing what is involved, what risks are available, and what resources are required to successfully test this system. Furthermore, it establishes the expectations for testing the system including what is in scope, what is out of scope and what the objectives and deliverables are for this system.

This test plan assists in the preparation of the testing processes required to ensure that this project is completed successfully with a high quality product being deployed.

For the sake of brevity I will be referring to the project as the Project.

## Scope

### In Scope

All the features of the project which were defined in software requirement by Bundle HR Team are to be tested.

|  |  |  |  |
| --- | --- | --- | --- |
| **Module Name** | **Applicable Roles** | | **Description** |
| Mobile Application File Upload | User/Admin/Finance Team | A member of the finance team should be able to upload a file using the file path. | |
| Mobile Application File Content Entry Upload | User/Admin/Finance Team | A member of the finance team should be able to upload the content of the file if they do not want to upload the file itself. | |
| Data Submission to Server | User/Admin/Finance Team | A member of the finance team should be able to submit the file or the contents of the file to the server by clicking the **Continue** button. | |
| New Screen Display | User/Admin/Finance Team | A new screen should be created. | |
| Data Display of Parsed Results | User/Admin/Finance Team | This new screen should display the data uploaded to the server by a member of the finance team. | |
| New Screen Display | User/Admin/Finance Team | A new screen should be created after clicking the **Continue** button. | |
| Company Invoice Data Display | User/Admin/Finance Team | The new screen should display an invoice of the billable hours for the company in question. | |
| API Post Data | User/Admin/Finance Team | The API should be able to post and create data that will be stored and retrievable in the server. | |
| API Get Data | User/Admin/Finance Team | The API should be able to retrieve all data that is created in the server and also retrieve company billable data as well. | |

### Out of Scope

All the features of the project which were not defined in software requirements by Bundle HR Team which are not to be tested.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Module Name** | | **Applicable Roles** | | **Description** |
| File Picker | User/Admin/Finance Team | | When a member of the finance team wants to upload data using file picker, this may be possible but will not be in scope of this test. | |

## References

* IEEE 829-2008 – IEEE Standard for Software and System Test Documentation
* ISO/IEC/IEEE 29119-1:2013 Software and Systems Engineering – Software Testing Part 1: Concepts and Definitions
* ISO/IEC/IEEE 29119-2:2013 Software and Systems Engineering – Software Testing Part 2: Test Processes
* ISO/IEC/IEEE 29119-3:2013 Software and Systems Engineering – Software Testing Part 3: Test Documentation
* International Software Testing Qualification Board (ISTQB) – Standard glossary of terms used in Software Testing Version 2.3 (March 28, 2014)

## Quality Objective

The test objectives are to **verify** the functionality of Bundle Billable Hours Invoicing System, this project should focus on testing the **File Upload and Company Billable Invoice Data Features** such as:

* File upload flow.
* Data copied and pasted in the text box for upload.
* Result display from the file or data upload.
* Ensure that the company billable hours invoice generated is correct according to billable rate and time spent set to the company.
* Ensure that the project application under test conforms to all functional and nonfunctional requirements.
* Bugs/issues are identified and fixed before going live.
* Ensure the AUT (Application Under Test) meets the quality specifications defined by the client.

## Roles and Responsibilities

This project should use inhouse test engineers rather than outsourcing.

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Member** | **Tasks** | |
| **1.** | Test Manager | Manage the entire project Define project directions  Designs the test plan Acquire appropriate resources | |
| **2.** | Tester | Identifying and describing appropriate test techniques/tools/ Verify and assess the Test Approach.  Execute the tests, Log results, Report the defects. |
| **3.** | Developer in Test | Implement the test cases, test program, test suite etc. | |
| **4.** | Test Administrator | Builds up and ensures the test environment and assets are managed and maintained. Supports Tester to use the test environment for test execution | |

Amongst others

# Test Methodology

## Overview

The Test Methodology to be used here is the Agile Method of testing. This is because the method of software development used for the project is the Agile method, therefore, testing will be incremental and will happen every time there is a new release or build in detail.

Test Methodology To be Used: **Agile Test Methodology.**

## Test Levels

In the project there are 3 types of testing that should be conducted.

* Functionality Testing: Individual software modules of the file or content upload flow, result display screen (correctness and display) and correct company billable hours invoice generated, to make sure they conform with the requirements.
* Usability Testing: Conducted to make sure the interface, buttons and icons have the required specifications.
* Recoverability Testing: Test all the Functions in the file or content upload flow, result display screen (correctness and display) and correct company billable hours invoice generated screen under crash scenarios and without internet access as well as phone shutdown cases.

## Test Cases

Here is a [link](https://docs.google.com/spreadsheets/d/1u_35h1ZHiJzkX5eUAQPO4YuvE9nFdUgIvZtll7EDgDQ/edit?usp=sharing) to a spreadsheet of the test cases for this project.

## Bug Triage

**Product Name:**Bundle Billable Hours Invoicing System

**Product Version:**Version 7a

**Bug Name:** Paste Content Function **Bug ID:**0001 **Bug Status:**New

**Page Url:**Application screen

**OS:**Android 9

**Area Path: Open** Application >> Long press text box >> paste >> click continue **Severity:**Medium **Priority:**Low **Assigned to:**Application Developer **Reported By:**Peter Abah **Reported On:**28th April 2021. **Reason:**This is a system requirement stated as needed by the customer hence it will be great to make sure it works.

**Status:**Open**Environment:**Nexus

**Description:** The pasted data content function of the application was tested and the data does not parse as the text box doesn't allow for pasting in multiple lines which a csv content will be in, this bug is critical to the system as it is part of the system requirements.

**Steps to Reproduce the Bug:**

1. Open application (Bundle Billable Hours)
2. Long press the text box
3. Click on paste
4. Click on continue.

**Expected Result:** The data is parsed and results are displayed

**Actual Result:**  The data is not parsed as the text box doesn't allow for pasting in multiple lines

## Suspension Criteria and Resumption Requirements

If the test team members report that there are **45%** of test cases **failed**, suspend testing until the development team fixes all the failed cases.

## Test Completeness

* 100% test coverage on File Upload, Correct Result Displayed and Correct Invoice Generated.
* All Manual Test cases executed.
* All Automated Tests executed.
* All open bugs are fixed or will be fixed in the next release.
* Pass rate is 90%, achieving the pass rate is mandatory

## Project Tasks Estimation and Schedule

|  |  |  |
| --- | --- | --- |
| **Task** | **Members** | **Estimate effort** |
| **Create the test specification** | Test Designer | 20 man-hours |
| **Perform Test Execution** | Tester, Test Administrator | 20 man-hours |
| **Test Report** | Tester | 10 man-hours |
| **Test Delivery** | Test Manager | 10 man-hours |
| **Total** |  | **60 man-hours** |

# Test Deliverables

Here are the Test deliverables.

|  |
| --- |
| **Before Testing**   * Test Plan. * Test Cases. * Test Strategy.   **During Testing**   * Test tool simulators or staging. * Test trace-ability matrix. |
| **After Testing** |
| * Test reports and results. * Bug Reports. * Release notes and recommendations. * Installation/Test procedures guidelines. * Test tools simulators or hardware |

# Resource & Environment Needs

## Testing Tools

|  |  |  |
| --- | --- | --- |
| **No.** | **Resources** | **Descriptions** |
| **1.** | Automation Testing Tool | Testing automation tools for automation scripting and testing the mobile app. |
| **2.** | Android Emulator | Android studio emulator to enable testing the mobile app. |
| **3.** | Computer | At least 1 computer run Windows or MacOS to document the test items. |
| **4.** | Network | Setup an internet network to enable live deploying, testing and reporting. |

## Test Environment

Following **software’s** are required in addition to client-specific software.

* Katalon Studio.
* Windows 10 (64 bit).
* Android Studio (emulator).
* Android 9 Phone.
* Computer.
* GitHub Repository.
* Jmeter

# Terms/Acronyms

Make a mention of any terms or acronyms used in the project

|  |  |
| --- | --- |
| **TERM/ACRONYM** | **DEFINITION** |
| API | Application Program Interface |
| AUT | Application Under Test |