Hackathon2022 diverse owned or led businesses

Work Effort Requestor/Sponsor: Hackathon2022

Work Effort Manager: NA

**Work Effort ID:** NA

Test Plan

**Status:** Final

**Version:** v1.0

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**Date Created:** 05/15/2022

**Date Modified:**

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Document Purpose

The objective of this document is to provide the test approach across LOBs, CIOs/applications, and testing disciplines (including integrated functional, regression) to validate that the solution will perform as documented in the requirements/designs. It describes the detailed specifications for the test scenarios, cases and scripts required to complete testing. The summarization of all details into the test plan allows for overall testing coordination, identification of gaps, and facilitates cross-organization planning.

Approvals

Documentation of approvals is **required** from those designated as approvers of this document.

| Role and Approval Detail | Name of Approver and Email Address | Approval Documentation |
| --- | --- | --- |
| Application Manager | TBD |  |
| Business Analyst/PM | TBD |  |
| Designer | TBD |  |
| QA | Nirmal Singh, |  |

Version History

List all revisions to the original artifact, starting with publication of the artifact with the author listed.

| Version No. | Revision Date | Revised By | Change Descriptions |
| --- | --- | --- | --- |
| V1.0 | 09/25/2021 | Nirmal N. Singh | Initial document created. |
|  |  |  |  |

Contributors

The following listed individuals provided content to this document.

| Name | Work Effort Role |
| --- | --- |
|  |  |

Reviewers

The listed individuals had the opportunity to review this document and provide input prior to submission.

| Name | Work Effort Role |
| --- | --- |
| Praveen, Sunil, Aiswarya, Amrutha | Development team |

Glossary of Terms

Terms and acronyms within this document that may be unfamiliar to readers are listed in the following table.

# Introduction

## Project Purpose / Background:

**Get involved in driving DE&I outcomes!**

Organization is committed to being a force for good in our communities. As such, there several DE&I firm led **external initiatives**focused on investing in communities, better serving customers from those communities, and increasing supplier diversity. **In today’s Commercial Banking landscape, there are strategic growth opportunities with diverse customers**. Our organization has innovative programs to support women and minority-owned businesses with banking products for near and longer term growth.

**2022 DE&I Hackathon Challenge:**

**In order to better serve these customers or prospects, Our organization needs an effective and automated technology tool(s) identify the diversity dimensions of the ownership and/or the leadership of these commercial customers and/or prospects.**

Currently, this data is being combed from customer and prospect websites and other public data in a manual fashion. A new technology or tool will to increase efficiency of this effort, reduce potential human bias, and generate more potential opportunities for diverse customer engagement.

**The scope of this challenge include diverse owned or led businesses.**

**Diverse-owned businesses** include:

* Minority Owned: where a business is more than 50% owned and controlled by individuals who are
  + Black or African American
  + Hispanic or Latino
  + Native American or Indigenous
  + Asian-Pacific Americans
  + Asian-Indian Americans
* Women Owned: where a business is more than 50% owned and controlled by a women
* Disabled Owned: where a business is more than 50% owned and controlled by a person with a disability, regardless of their ethnic background
* LGBTQIA+ Owned: where a business is more than 50% owned and controlled by a person who identifies as lesbian, gay, bisexual, transgender, queer, intersex, or asexual regardless of ethnic background
* Veteran Owned: where a business is more than 50% owned and controlled by individuals who are veterans regardless of their ethnic background

Diverse led businesses can be categorized the same as above but without the ownership component. Leadership is considered Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Operating Officer (COO) or Treasurer/Director of Finance.

## Project Scope:

In Scope

Create a process and development tools to identify diverse owned, or led businesses

1. Identify a diverse business from the public domain

2. Once the site is identified, the technological solution will attempt to identify whether the company is women or diverse owned.

3. Update document in column K if the company is woman owned

4. If the company is diverse owned, the tool should update column L with a description of what diverse segment that the owner identifies with.

5. Search on the company’s website to identify whether the company has women or diverse senior leadership

6. If Information I unclear on search performed in public domain and company website, further searching will need to be executed via LinkedIn, or via other news sites to define owners and leaders within the company. Update the existing data sheet based on search results.

7. Aggregate diverse company intelligence into a summary that reflects key data points by segment

## In-Scope Testing Activities

1. Create test data to include company names which are included in the existing data file and with few company names which do not exist in the existing data file.
2. Test with company names available in the existing data file.
   1. Search the company name in Google to identify websites providing information on the company’s diversity information
   2. Extract the information and update column K and L based on information obtained in existing data sheet.
   3. Search in company website to identify if company is women or diverse leadership
   4. If information cannot be found in step till 2.3, search for the company information in LinkedIn and other news websites and update column K and L.
3. Test with company names not available in the existing data file.
   1. Search the company name in Google to identify websites providing information on the company’s diversity information
   2. Extract the information and inset anew record in existing data sheet. Update column K and L based on search information.
   3. Search in company website to identify if company is women or diverse leadership
   4. If information cannot be found in step till 3.3, search for the company information in LinkedIn and other news websites and update column K and L.
4. Create a report after aggregating diverse company intelligence into a summary that reflects key data points by segment

## Out-of-Scope Testing Activities

Anything other than specified in “In Scope” will be considered Out of scope.

# Impact Analysis

| Application Grouping | Application ID | Application Name | Application Point of Contact | Impact Type  *System Changed/ Regression Testing Only/ Support App.* | Impacted Area | Impacted Area Point of Contact |
| --- | --- | --- | --- | --- | --- | --- |
| **N/A** |  |  |  |  |  |  |

# End-to-End Testing Approach

Not applicable.

# Testing Approach

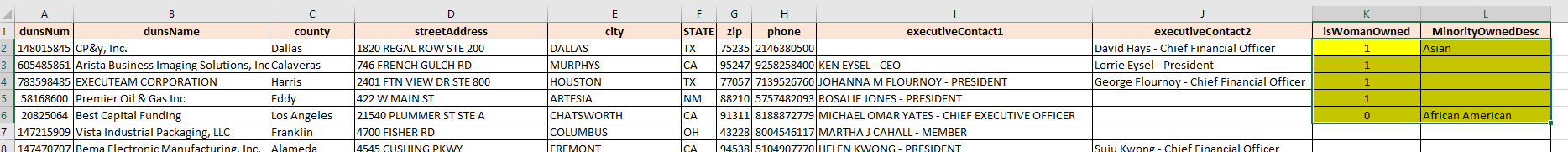
# Test Approach

### System Testing:

The QA team will verify the data was loaded into the tables based on the business requirements and design specification documents. Standard tests will be performed on the different types of data fields to ensure consistency with the expectations of that type of data. For example, date fields will be in the documented format, code and indicator fields will be checked against metadata for valid values and numeric data will be analyzed for reasonability. Data transformations will be validated against the documented business requirements and design documents.

<Design Document>

Result will be updated in the existing data file as below:



### Requirements with Test Coverage

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Req. #** | **Requirement Description** | **Additional Detail (Design, FSD, Mapping, ETC…)** | **Test name and test step number #** | **Test Description** | **Expected Test Results** |
| 1 | Create test data to include company names which are included in the existing data file and with few company names which do not exist in the existing data file. |  | 1.1 | Test data is created with few company names available and also not available in the existing data sheet. | Test data with sample data. |
| 2 | Test with company names available in the existing data file. |  | 2 | Process to test with company name available in the existing data sheet. |  |
| 2.1 | Search the company name in Google to identify websites providing information on the company’s diversity information |  | 2.1 | -Open internet search engine  -Search company name (from prospect list from vendor or from existing client list)  -Explore company website (about us, our story, etc.)  -Identify any information about currently being minority-owned (last 5-10 years at longest, unless there are more current indicators that the company is no longer minority owned).   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified.   -Look across the company website to identify any diverse-ownership certifications (e.g. certified women owned business WBENC, NGLCC, LGBTBE certification, NMSDC, etc.)   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified. | Identify if business is diverse or minority owned. |
| 2.2 | Search in company website to identify if company is women or diverse leadership |  | 2.2 | - Identify company leadership team (focus on founders/owners, CEO, CFO, COO, Treasurer, Director of Finance). – check for any self-identifying information (e.g. someone identifying themselves as Black, a woman, LGBTQ+, etc.)   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified.   -If no information can be found on diverse ownership on company website, search for the owners/CEO/CFO/COO on internet search engine (ensure that their name is combined with company name to avoid identifying the wrong person).   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified. | Identify if business has diverse or minority leadership. |
| 2.3 | Extract the information and update column K and L based on information obtained in existing data sheet. |  | 2.3 | Update column K and L in the existing data sheet. | Expected results updated |
| 2.4 | If information cannot be found in step till 2.3, search for the company information in LinkedIn and other news websites and update column K and L. |  | 2.4 | -Search owner/leader professional profiles (e.g. LinkedIn, industry publications, etc.) to identify diversity dimensions   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified. | Expected results updated |
| 3 | Test with company names not available in the existing data file. |  | 3 | Process to test with company name not available in the existing data sheet. |  |
| 3.1 | Search the company name in Google to identify websites providing information on the company’s diversity information |  | 3.1 | -Open internet search engine  -Search company name (from prospect list from vendor or from existing client list)  -Explore company website (about us, our story, etc.)  -Identify any information about currently being minority-owned (last 5-10 years at longest, unless there are more current indicators that the company is no longer minority owned).   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified.   -Look across the company website to identify any diverse-ownership certifications (e.g. certified women owned business WBENC, NGLCC, LGBTBE certification, NMSDC, etc.)   * If yes, continue to see if additional diversity dimensions can be identified.   If no, continue to see if any diversity dimensions can be identified. | Identify if business is diverse or minority owned. |
| 3.2 | Search in company website to identify if company is women or diverse leadership |  | 3.2 | - Identify company leadership team (focus on founders/owners, CEO, CFO, COO, Treasurer, Director of Finance). – check for any self-identifying information (e.g. someone identifying themselves as Black, a woman, LGBTQ+, etc.)   * If yes, continue to see if additional diversity dimensions can be identified. * If no, continue to see if any diversity dimensions can be identified.   -If no information can be found on diverse ownership on company website, search for the owners/CEO/CFO/COO on internet search engine (ensure that their name is combined with company name to avoid identifying the wrong person).   * If yes, continue to see if additional diversity dimensions can be identified.   If no, continue to see if any diversity dimensions can be identified. | Identify if business has diverse or minority leadership. |
| 3.3 | Extract the information and inset a new record in existing data sheet. Update column K and L based on search information. |  | 3.3 | Update column K and L in the existing data sheet. | Expected results updated |
| 3.4 | If information cannot be found in step till 3.3, search for the company information in LinkedIn and other news websites and update column K and L |  | 3.4 | -Search owner/leader professional profiles (e.g. LinkedIn, industry publications, etc.) to identify diversity dimensions   * If yes, continue to see if additional diversity dimensions can be identified.   If no, continue to see if any diversity dimensions can be identified. | Expected results updated |
| 4 | Create a report after aggregating diverse company intelligence into a summary that reflects key data points by segment |  | 4 | A report is generated by aggregating the excel sheet data. | Summary report generated. |

### Regression Testing

NA

### PI (Post Installation) Testing

PI testing will be carried out for the tables and views listed above after the production installation.

# Entry /Exit Criteria

### Entrance Criteria

* All requirements, test cases and test scripts are documented in JIRA and share point
* Test Plan is fully approved.
* Unit test results are available from the developer for review by QA Analyst*.*
* The process has run successfully, and data is loaded in the available environment.
* All reference documents are approved, and no additional changes will be made unless initiated as a result of testing.
* Source data is available to QA Analyst.

### Exit Criteria

* All test scripts in Quality Center are successfully executed and “passed”.
* All defects are closed or an agreed upon work around is documented and approved by the project manager.
* All requirements reflect a “passed” status.

### Manual/Automation Details

N/A

# Overall Testing Assumptions, Constraints, Dependencies, and Risks

Please mention all test specific assumptions in this section

| **#** | **Type** | **Subject** | **Priority** |
| --- | --- | --- | --- |
|  | Additional Project Assumptions | |  |
| 1. | Assumption | Separate environments for Dev, SIT and UAT will be used for all projects testing to ensure quality control. | 6.1 |
| 2. | Assumption | QA will have access to execute the process/jobs to verify the success/failure | 6.2 |
| 3. | Assumption | QA will have access to verify the data in the existing data sheet. |  |
|  | Test Specific Assumptions | |  |
|  | Assumption | Availability of test environments and test data |  |
|  | Dependencies | Login credentials and access privileges will be available to the QA team |  |
|  | Assumption | Unit testing will be performed by the developer and completed for all code that has been written prior to the turn-over of test files to the testing team. Developer should provide information on unit test results or the location of the supporting documentation |  |
|  | Dependencies | Any changes in project scope or testing requirements will be provided in writing to the testing team and will reflect evidence that the change control process was followed |  |

# Overall Testing Control Procedures

### Communication Plan

This section describes the test documentation, test results and tracking defects and change communication procedures.

* All the test documents will be updated in JIRA and also project shared folders.
* All the test results will be saved in the following Shared location for this project:
* All the defects will be logged in JIRA
* It is important that all clarification and/or changes to the requirements and/or design, defect fixes, version control issues etc. get communicated between development and testing team.

### Test Deliverables

Following are the deliverables from the QA team:

* System/Functional Test Plan (this document)
* Test Cases/Scripts
* Test Summary Report (Closure document)

# Tentative Schedule

|  |  |  |
| --- | --- | --- |
| Testing Phase | Start Date | End Date |
| System Testing | TBD | TBD |
| User Acceptance Testing | TBD | TBD |
| Post implementation testing | Post deployment to prod. |  |

# Appendix A - Testing Phases

| **Type of Testing** | **Purpose** |
| --- | --- |
| Data Inspection | Data inspection is utilized to aid in the understanding of the data to be processed :   * identify data values and characteristics * record counts * sum of numeric fields * minimum and maximum values * identify packed data * null values |
| Table structure | Confirmation that all of the tables and views exist in the correct databases and have the expected columns and characteristics |
| Table level rule testing | Confirmation that the correct records and columns are included in the table/view and the correct data can be selected based on date data in the table |
| Column level rule testing | Confirmation of attribute values primarily based on the mapping document  Validation includes:   * sums of numeric elements * checks for NULL values * checks for default values * counts, minimum and maximum values are as expected * transformations are correct * lookup process is as expected |
| Integration testing | Confirmation of table relationships:   * table keys are unique * foreign keys relationships are as expected (cross table referential integrity) * relationships to other data elements are as expected |
| Regression testing | Confirmation that no unintentional changes are introduced by the project |
| Data Accuracy | **Match against Appropriate Source –** Source systems that are providing data are expected to perform this check prior to sending the data.  Once a file is received in SIT the testing team will validate that what is received is what has been loaded into SIT tables. |
| **Default Value –** Default values need to be used consistently, proper use of the default values are used.  A check to make sure a default value in properly populated in SIT tables is done by the testing team. |
| **Onboarding Correctness –** Controls to verify data being entered into the System of Record/Origin is the source systems responsibility and should be completed before data is sent to SIT |
| Data Completeness | **Detect Missing Data–** A check to determine if all expected records are obtained needs to occur as data is sent from source to target.  Record count is performed in SIT when data is received and then once again when data is loaded. |
| **Mandatory Fields–** If a field is required, a validation check to make sure that the field is not null, not blank, and is not populated with spaces |
| **Data Volume Check–** A comparison between incoming files and once they are loaded should be within an accepted variance. Variance of record needs to be finalized |
| **Aggregate Measure Checks –** When balance changes occur, there needs to be an acceptable variance for quality ranges. Variance of record needs to be finalized |
| Data Consistency | **Overlapping Elements Check–** Consistency of values need to be maintained for incoming records. For example:  Are systems providing the same account information?  Can an account have multiple values for a field? |
| **Referential Integrity–** Fields must be tested for validity to insure integrity when populating values.  For example, country code XYZ must be a valid code. |
| **Conditional Field Check–** Certain fields can be an identifier for the population of an attributing field.  An example of this check would state: Collateral Valuation Source should be populated where Collateral Eligibility flag is set to ‘Y’. |
| Data Validity | **Master/Reference Data Check–** Checks to ensure the validity of master/reference data need to be put in place.  This check looks to make sure the reference data populated in the table are appropriate values. |
| **Range Check–** Values need to be within a certain range.  Thresholds around the data should be determined and set. |
| **Type Check–** Length and format of a field need to be consistent as data moves throughout the environment.  Specified data lengths, type and format can all be referred to in the mapping spec document |
| Data Uniqueness | **Duplicate Check -**  A check to see that the columns which should have unique records doesn’t have any duplicates |
| Special processing/abnormal conditions | Processing days are as expected. Confirmation of special processing due to weekend or holiday processing. Purge rules would also fall into this testing. |
| Metadata testing | Confirmation that information in metadata and data in the warehouse environments are consistent |
| Source/GL reconciliation | Confirmation that data can be reconciled to general ledger and/or source reports |
| EME testing | Confirmation of the AbInitio process:   * standards are followed in the graphs (all content is readable, no overlapping components) * graph flows from left to right * all components (joins, filters, dedups, rollups, unused, trash, etc) display record counts * graphs run successfully * dependency analysis (data lineage) is available to view * validate that lookup (reference tables)information is available to view * job statistics and history of job run times are captured * all ports are populated and identified by description or label |
| Autosys JIL testing | Manual review of JIL from documents provided by the development team for expected changes for existing processes or new processes where information of this level is provided in documentation to QA |
| User acceptance testing | Confirmation that the data can be utilized by the business groups for the intended purpose.  NOTE –  UAT requires significant input from the business owner/group, QA analysts are not users of the data and cannot sufficiently determine if the data is usable and meets the business needs with the information typically provided in EIS documents. |
| Stress/volume testing | Confirmation that the system can support the data volume and user inquiry volume without negative impact to the business |
| Test data tracking | Confirmation that test data is removed from the test environments after project implementation |
| Post implementation Testing | Confirmation that the implementation into the production environment meets the business requirements.   * all database tables and views exist as expected * all data elements are included * referential integrity is as expected * table keys are unique * record counts are as expected * all expected changes are included and no unexpected changes are introduced |