| **Version Control** | | | |
| --- | --- | --- | --- |
| **Version** | **Author(s)** | **Version Description** | **Date of Production** |
| *1.0* | *Miguel Camilo Páez Pirazan* | *Start of the document* | *August  28 2022* |

| **The IDENTIFICATION OF THE PROJECT** |
| --- |
| **Client :Advantage Demo** |

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# Purpose of the document

The purpose of this document is to define the strategy and  scope that will be covered during the  process of testing by us to functional processes in the **Project Advantage Demo.** This plan includes types of tests to perform, documentation will be taken as input, requirements to be tested according to the defined scope, guide for reporting incidents, methodology, tools and criteria of acceptance.

# Definitions

Below are some of the terms used in this document that are related to the testing process.

| **Terms of tests** | **Definition** |
| --- | --- |
| **Excel** | Tool for the control and monitoring of incidents. |
| **Excel** | Tool for creating test scenarios and implementation of the same. |
| **Test Case** | Document that specifies entries, execution conditions and expected outputs of an item of evidence. |
| **Acceptance Criteria** | Condition that determines whether a deliverable is ready to be used in the production environment. |
| **Default** | Inconsistency of a deliverable found during the stage of testing. |
| **Deliverable** | Tangible result (document format, software, etc.) of a completed task. |
| **Incidence - Issue-Bug** | Default, question or suggestion reported in the bugtracker. |
| **Test item** | One or more system components or options subject to the testing process. |
| **Tester** | Miguel Camilo Páez Pirazan |

# Implementation of the plan

Is consolidated the estimated times in accordance with the planning and scheduling of start and completion of certain tests under an optimistic and pessimistic estimate where it is estimated a time basis, under the assumption of not finding disadvantages that affect the time of the tests. The times optimistic estimates for this test are assuming that the portals  are stable and have a reasonable level of quality.

1. Shown below is the compliance plan generated by the team of QC which should be followed in full for the fulfillment of the goals envisaged:

| Optimistic date: | Pessimistic date: | |
| --- | --- | --- |
| Sprint Planning Activities 1 | | **Hours Spent** |
| Analysis Phase | | 6 |
| Design of test plan | | 6 |
| Design of test cases | | 6 |
| Execution of test cases | | 4 |
| Report of Findings | | 2 |
| Verification of issues resolved | | Pending |
| Construction Data Set | | Mocked data |
| Forward documentation and closure of evidence | |  |

# General scope

The scope of this test will in the verification of cases defined for the features mentioned below and that are raised to the defined processes for the project, according to the distribution of outputs and deliveries referred to each one of the sprints referred and trace against array of requirements. These tests were conducted to confirm the correct functioning of the flows and requirements of manifests by the customer.

For the execution of the tests in mention is to identify the test cases to establish the stability of the system and that all the major features are present and working under normal conditions, the cases are concentrated in a broad scope, opposed to a depth level high, its purpose is not to detect the largest amount of findings, but to demonstrate the stability and proper functioning of the functionality raised, I indicated in the scope.

The features identified in the scope are covered by the procedures defined for each portal and maps of implementation under the different Wireframes or prototypes that are defined.

Below is a list of the processes to be verified:

| Processes | | |
| --- | --- | --- |
| P-01 | Accessibility | |
| P-02 | Users | |
| P-03 | Modifications | |
| P-04 | Forms | |
| P-05 | Menus |  |
| P-06 | Content | |

# Types of tests to run and its scope

The following are the types of tests that are part of the scope of this test plan. For each type of test defines functionality or deliverable that will be validated and the artifacts that are taken as an input to verify compliance with the requirements, guidelines and acceptance criteria defined and approved by the client.

| **Name of the test:** | **Evidence of Requirements** |
| --- | --- |
| Aim of the test: | Check or Check 10 quality attributes of the requirements, in order to detect as many errors as possible and as soon as possible.  The attributes to check are: correct, complete, consistent, without ambiguities, verifiable, prioritized, modifiable, traceable, understandable, organized, independent of the deployment. |
| Scope of the test: | Will be validated each of the processes identified under the scope of the test |
| Items outside the scope | The specification detail in story to the processes of exceptions, alternate flows and inputs of data will not be taken into account for testing requirements, in the different processes. |
| Strategy to use: | For the testing at requirements are used the technique of reviews, where the process analyst once you have different versions of the deliverables, distribute the user and the QC analysts  for its review and comments, these comments will be delivered again analyst to processes, to perform the settings corresponding to the models of the process, verify the settings on the part of the test equipment and user and will approve each one of the specifications of the process *.* |
| Tools to use: | - Microsoft Excel |

| **Name of the test:** | **Functional tests** |
| --- | --- |
| Aim of the test: | Ensures the appropriate job of functional requirements, data entry, processing, getting results. Also involves usability testing and ease of  use of the portals and sites of the page, with the management of content indicated. |
| Scope of the test: | Will be validated each of the processes identified under the scope of the test |
| Inputs to use: | * Test environment delivered by development |
| Strategy to use: | For the design of the test cases will use techniques of black box or based on the specification of the process, more oriented to comply with the conditions proposed in the documents with a dynamic approach, drawing on the experience testing and the knowledge they possess the areas of development and analysis.  For each one of the processes, portals and sites  belonging to the scope of the project, will be validated in regard to its correct parametrizacion and configuration of content on the site, making allusion to the native behaviors and covering the correct implementation according to the guidelines defined for the processes and validation of test cases estimated to the completeness and correctness of the development. |
| Strategy for generation of test data: | The test data will be configured by the QC analyst, base to the conditions that are required for each of the functional processes delivered to the test area, processes that require a special request of data by the customer or by external systems will be requested in advance to the development team. |
| Tools to use: | * Microsoft Excel |

| **Name of the test:** | **Regression testing** |
| --- | --- |
| Aim of the test: | Determine if recent changes in one part of the application have adverse effects on other parties. |
| Scope of the regression: | Will be validated each of the processes identified under the scope of the test that suffer functional changes in development. |
| Inputs to use: | The specification of use cases / requirements that were selected for the regression. |
| Strategy to use: | The execution of regression testing will be carried out for each change that suffers the system before new publications and correction of incidents detected in development. |
| Scope automation | Automated scenarios were implemented after having completed the Functional testing and covered the largest number of incidents , doing these tests under a more stable environment and clean  Pending define scope |
| Strategy for generation of test data: | The test data will be configured by the analyst of evidence, the basis of the conditions that are required for each of the functional processes delivered to the test area, processes that require a special request of data by the customer or by external systems will be requested in advance to the development team. |
| Tools to use: | * Excel * Automation scripts (Java, Maven, TestNg) |

| **Name of the test:** | **Webservices test**(If needed) |
| --- | --- |
| Aim of the test: | Check the operation of the system on different hardware and software configurations. |
| Scope of the test: | Generate a client or a code skeleton for the web service, define input data for the test, invoke the Web service by means of the customer or the code skeleton and check that the real answer is similar to the expected response |
| Inputs to use: | * Architecture Document * Test environment delivered by development |
| Tools to use: | * Postman |

| **Name of the test:** | **Accessibility** (If needed) |
| --- | --- |
| Aim of the test: | It must comply with the criteria. Priorities of accessibility, otherwise, one or more groups will find it impossible to access information in the document. The fulfillment of this criterion is a basic requirement for some groups to be able to use Web documents. |
| Scope of the test: | * Accessibility Evaluation Onda-Herramienta Chrome Web/Firefox( ) extensions to the  users to look minimum accessibility while the lists of marking, highlighting the  keyboard shortcuts and alternate views of content of the page. * FireEyes+ Firebug Chrome/Firefox( Extensions)  reporting capability to highlight a specific area of the page where  the error is located as poor visibility between text and background colors, the visible components. * WCAG Contrast checker /Chrome/Firefox( ) and analyzer extensions of contrasting color analyze a web page or part of a web page according to WCAG 2.0 requirements of  color contrast. Evaluates the page as it appears in the browser so that it is able to handle text more degraded and advanced CSS attributes. * Web Developer Toolbar Validate duplicate ids in the pages, the style of the elements, |
| Inputs to use: | * Architecture Document * Test environment delivered by development |
| Tools to use: | * NVDA * Voice over |

# Risks identified in the functionalities

Below are some aspects to be taken into account at the moment of making the delivery of the product to the end user:

| **ID** | **Impact** | **Features or aspects outside the scope of the testing.** |
| --- | --- | --- |
| 1 | High | The documentation covers the different stories input of user or requirements make approved, each of the processes from start to finish under a basic flow, for which is the exception that in general aspects  does not provide the detail of the flows of the functionalities covered to certain functions , manipulation of exceptions, alternate flows, input and output data, mandatories and generalities that cover a system, are not documented, which could involve a risk to detect a high percentage of incidents. |

# Deliverables of evidence to generate by internal process

The following are the artifacts that are delivered as evidence of the carrying out of tests and the results obtained.

* *Test Plan*
* *Test cases that include the execution results*
* *Errors reported and managed in JIRA defined for the project.*
* *Scripts generated from the automation.*
* *Evidence of test (videos, images, control files, among others).*
* *Approvals.*
* *Minutes of meeting.*

# Methodology used

The testing methodology will be referred to by the following phases:

* **Analysis:** It would show objectives, requirements and content of each process Analyst to test under the input provided by the areas of processes and development.
  + Under this phase to be validated themes of ambiguities, compression, usability and trace of the requirements taken as input for the creation of the test scenarios.
  + The report any findings, suggestion or consideration that is detected under this phase through the Incident Manager JIRA.
  + The inputs for the contextualization will be taken from the repository for each process.
* **Planning**: Submit the plan of evidence to the concerned (minimum the manager and architect) as defined in the test plan, in order to find potential inconsistencies, ambiguities and themes incomplete.
  + The observations and inconsistencies detected during this presentation should be reported excel.
  + Given that the test plan is the contract of quality defined for the project or iteration, it should be reviewed and approved by the architect of solutions. To be approved all the inconsistencies reported in excel  must be closed.
  + If during the execution of the iteration or sprints there are variations to what is defined in the test plan, it should be modified and again delivered for approval.
  + Artifact suggested: Email Approval test plan
* **Design of test cases:** the establishment of the test scenarios under the Xray tool for functional tests, based on the documentation provided by the input area of processes and development, in such a way that they cover both cases of success as fault covering the largest amount of items to be evaluated in the development, in order to comply with the acceptance criteria according to what is required by the customer.
  + Under this stage be sent daily progress reports to those involved in the development of each process to maintain learned to the computer and to the fulfilment of the objectives, in order to manage and mitigate any incident detected
  + The report any findings, suggestion or consideration that is detected under this phase through the Incident Manager JIRA.
  + The inputs for the contextualization will be taken from the repository for each sprint.
* **Execution of tests**: They ran the tests according to the scenarios raised in the design stage, recrearan test steps according to the designed and registered in Xray , directed to the test environment delivered by the development team, with the purpose of obtaining the criteria for approval and disapproval to the implementation developed basis.
  + For this phase was to demonstrate the different findings that achieve be detected in the implementation of the test scenarios, the findings shall be managed until you reach an approval status
  + Under this stage be sent daily progress reports to those involved in the development of each process to maintain learned to the computer and to the fulfilment of the objectives, in order to manage and mitigate any incident detected
  + The report any findings, suggestion or consideration that is detected under this phase through the Incident Manager JIRA.
  + The inputs for the contextualization will be taken from the repository for each Sprint.
* **Approvals**: Is generated an approval before the implementation of the stage and types of tests raised in order to mitigate the largest amount of findings and obtain the highest percentage of approval,  in the event that the client permits, once the product has been deployed in the environment of certification, takes visitors on a journey through the application in conjunction with the customer to validate that the installation was successful and that you can begin the formal certification by the client.
  + From testing short (Smoke Test), seeks to establish whether the solution meets the expectations of the objects to be revised in the test cycle.
  + Traditionally, takes visitors on a journey through the application to validate that the installation has been successful. Is used the checklist to validate that the solution delivered meets the minimum quality requirements to start the process of validation.
  + If it is not possible to perform the smoke test in the certification environment of the customer, should be delivered to the customer by a checklist with the quizzes and the expected result. The client must be running these tests and report on the outcome.

Artifact suggested:

* + Checklist completed testing
  + Checklist of smoke test

# General tools to use

* **Microsoft Office -**Used for Loading of project documentation,  the checklist of evidence of development and filing the template for the identification and registration of test cases.
* **Java:** Java is a widely used object-oriented programming language and software platform that runs on billions of devices, including notebook computers, mobile devices, gaming consoles, medical devices and many others.
* **Maven:** Maven is a popular open-source build tool developed by the Apache Group to build, publish, and deploy several projects at once for better project management. The tool provides allows developers to build and document the lifecycle framework.
* **TestNg:** TestNG is an open-source test automation framework for Java. It is developed on the same lines of JUnit and NUnit. Few advanced and useful features provided by TestNG makes it a more robust framework compared to its peers. The NG in TestNG stands for 'Next Generation'
* **Git:** Git is a DevOps tool used for source code management. It is a free and open-source version control system used to handle small to very large projects efficiently. Git is used to tracking changes in the source code, enabling multiple developers to work together on non-linear development.

# Taxonomy for the registration of findings

1. You then define the format of the name of the requirements or functionalities that will be reported in the incident management tool:
2. For Processes:

* Number Sprint-Requerement-site .xxx name of the process.

1. For report of findings of general form or that apply to multiple processes  are reported with the following diagram:

* Transversal to the system.

1. With this structure ensures that you may perform measurement and traceability to the functionalities verified and all QC will continue this outline proposed at the time of report findings detected.

# Generation of reports and tracking the project

1. The QC team sent to the people involved in the project report the progress of the evidence on the basis of the consolidated implementation  and equipment tracking file. The information will be sent on a daily basis per week unless otherwise indicated.

The test team will generate test information according to the needs of the project manager, during the course of the phase or the evidence evidence analysts will be generating metrics of defect density by discipline and/or developer as well as frequent errors always and when the tool EXCEL defined permits.

## Required test environment

For the tests you have defined that the development team will make the deployment of the application, both the system and the components.

* For instance, the production environment.

# Criterion of suspension and reactivation of the test

1. The tests may be suspended under the following circumstances:

* The test environment is unstable. This may be due to the fact that it was not delivered the correct version, by problems of installation of the application or infrastructure.
* When is not counted with the data set suitable for testing.
* When the machine that it finds an application to test presents problems of performance.
* By changes in the system that involve suspend testing to avoid reprocesos.
* When to deploy the release to perform the smok stability test is evidence that is not successful.
* Cancellation of the process of evidence by the customer or project manager at any time.

1. In any of these cases except for the cancellation of the testing process, shall be notified in writing to those directly involved.

# Criteria for the return of the tests

1. The tests will be in analyst faculty of stop or not to start the execution of tests of a process, requirement or functionality when it meets at least one of the set points under the refund policies of the project.

# Assumptions and restrictions

The input documents delivered for the design and execution of the tests are approved by the client and ensures that they are the correct version with which the test equipment must work.

The instrumentality deployed to evidence fulfill the criterion of minimum acceptance and its behavior is functional and stable to recreate the test scenarios

# Reviews and approvals

| **Version** | **Date**  **Dd/mm/yyyy** | **Author** | **State** | **Reviewed by** | **Approved By** | **Description Modification** |
| --- | --- | --- | --- | --- | --- | --- |
| 1.0 | 28/08/2022 | Miguel Camilo Páez P |  |  |  | Test plan creation |