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| Client logo |  |

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**Project name**

**Test Plan Document**

**Version 1.0**

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Contents

[1. Version Control 2](#_Toc482016936)

[2. Purpose Of The Document 2](#_Toc482016937)

[3. Glossary 2](#_Toc482016938)

[4. Scope of Testing 2](#_Toc482016939)

[4.1 Requirements In Scope for Testing 2](#_Toc482016941)

[4.2 Requirements Out Of Scope for Testing 4](#_Toc482016942)

[5. Test Approach 4](#_Toc482016943)

[5.1 Test Design Phase 5](#_Toc482016944)

[5.1.1 Identification Of Test Objectives/Requirements 5](#_Toc482016945)

[5.1.2 Test Case Design 5](#_Toc482016946)

[5.1.3 Test Environment Set Up 5](#_Toc482016947)

[5.1.4 Testing Types 6](#_Toc482016948)

[5.2 Test Execution Phase 7](#_Toc482016949)

[5.2.1 Defect Management 7](#_Toc482016950)

5.3 Entry Criteria and [Exit Criteria 9](#_Toc482016953)

[5.4 Suspension and Resumption Criteria 10](#_Toc482016954)

[6. Risk Management 10](#_Toc482016955)

[7. Team Organization 12](#_Toc482016956)

[8. List of Test Deliverables 12](#_Toc482016957)

[9. Templates 12](#_Toc482016958)

[10. References 12](#_Toc482016959)

# Version Control

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| --- | --- | --- | --- | --- |
| **Version** | **Description** | **Status** | **Created/ Changed By** | **Created/ Changed Date** |
| 1.0 | Initial Draft | In Progress | Name | Date |
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# Purpose Of The Document

This document serves as a test strategy for Onboarding testing. The document must elaborate on the following:

* Scope of testing
* Test Approach
* Entry/Exit Criteria
* Suspension/Resumption Criteria
* Defect Management
* Risk Management
* Resource details

# Glossary

Define all terms and acronyms here.

|  |  |  |  |
| --- | --- | --- | --- |
| **Acronym** | **Description** | **Acronym** | **Description** |
| ONB | Onboarding |  |  |
| TV | Technovert |  |  |
| TL | Team Lead |  |  |

# Scope of Testing

## Requirements In Scope for Testing

With reference to the BRD document, the following will be tested under the Onboarding project:

|  |  |  |
| --- | --- | --- |
| **S NO** | **DevOps Req ID** | **Description** |
| 1 |  | Master Screen: Candidate Type |
| 2 |  | Master Screen: ONB Team Structure |
| 3 |  | Master Screen: Milestone Mapping |
| 4 |  | Master Screen: MOI-VISA Configuration |
| 5 |  | TL/Specialist Distribution Screen |
| 9 |  | TL/Specialist Workspace |
| 10 |  | Candidate Screen |

## Requirements Out Of Scope for Testing

With reference to the BRD document, the following features will be out of scope for the Onboarding project testing:

|  |  |  |
| --- | --- | --- |
| **S NO** | **Req ID** | **Description** |
| 1 |  | Performance Testing |
| 2 |  | Mobile Compatibility |

# Test Approach

The testing effort for this project will be divided into both individual and group testing efforts to ensure the various Components of the XXXX program function together as anticipated.  This allows us to build test scenarios, and cases and then test the application as they become available from the various development teams.

## Test Design Phase

Test Design phase includes the following critical activities:

### Identification Of Test Objectives/Requirements

Testing Team will review and understand the system requirements and design documents that will drive our test scenarios and test case creation.  In addition to reading and discussing all available Requirement documents for this project, testing team will conduct meetings with appropriate development and business contacts on need basis

Testing team will use Requirement documents, business input, and other data sources to prepare Test scenarios and Test cases. For all the major components, testing team will develop separate test scenarios, cases and will conduct review meetings with the Project stakeholders.

### Test Case Design

Test cases will reside in Devops, which will be available to onsite and offshore members of the test team. Test cases within Microsoft Test Manager will be linked to one or more test requirements and defects will be linked to test cases.

During test planning, each feature or function is given a value, or weight, where 1=low, 2=medium, 3=high across three dimensions:

● Value is described from the frame of reference of the end-user of the system under test (Business)

● Risks are described in terms of the probability and impact of software failures (Development)

● Complexity is described as the technical challenge of validating the software feature / function (Testing team)

The product of the 3 values = the Test Case Weight (1, 2, 3, 4, 6, 8, 9, 12, 18, 27) where the higher number (weight) the higher the priority.

Appropriate Weight assignment requires input from Business and Development for testing to enable test execution in order of “weightage.”

Post review and signoff of the test scenarios and test cases, it will be uploaded to MTM

### Test Environment Set Up

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Region** | **Deployment Owner** | **Scope** | **Comments** |
| DEV-SIT-offshore |  | * Full test execution (Including regression) for the module across all agreed browsers viz Google Chrome, IE10 and IE11 * UI verification for mobile devices * NFR test execution as per agreed | * For promoting the code to SIT from DevSIT (local / onsite) test lead approval is required * Proper justification should be given when 100% execution is not made in DevSIt * DevSIT onsite execution will be made only for cases with depends on TV network |
| SIT | TV | * MAT execution along with release items validation | * Test lead & Offshore PM signoff is mandatory. |
| Pre-prod | TV | * MAT execution along with release items validation | * Test lead & Offshore PM signoff is mandatory. |

### Testing Types

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Type** | **In Scope** | **Out of**  **Scope** | **Phase** | **Owner** | **Comments** |
| Unit | X |  | DIT | DEV | Conducted by the development team in support of their code process |
| Functional Testing | X |  | DevSit / SIT and Preprod | Technovert QA | Conducted by the QA to verify the functional changes per requirement. This includes both UI and functional validation |
| Systems Configuration | X |  | DevSit / SIT and Preprod | DEV / Release management | Validate that the configuration is ready for each phase as expected. |
| Data Reliability | X |  | DevSit / SIT and Preprod | DEV & ALL | As testing is conducted the quality and reliability of data will be required during testing phases |
| Build acceptance / Smoke testing | X |  | DevSit / SIT and Preprod | Technovert QA | QA will run a smoke test to accept the build. If any major issues are found build will be rejected |
| Compatibility Testing | X |  | DevSit / SIT and Preprod | Technovert QA | Compatibility testing with different browser and mobile platforms (refer to NFR check list) |
| NFR | X |  | DEV-SIT/ SIT | Technovert QA |  |
| UAT |  | X | Dev-SIT | Business | End user testing if required will be conducted by the business delivery team. |
| Regression | X |  | SIT | Technovert QA | Positive workflows only for the impacted module. Will be done on the internet site |
| Automation |  | X |  | Technovert QA |  |

## Test Execution Phase

Testing team will manage the entry and execution of test cases using Test Lab of Microsoft Test Manager. Testing team will execute the test cases according to its Test Case weights during the execution and it will help QA to detect all the important defects at the early stage. Microsoft Team foundation server defect tracking module is used to report, track and manage bugs. During this phase, QA will provide appropriate status to management on key metrics (ex. Test execution summary, Defect summary etc.).

Complete set of test cases that are in scope for the changes will be copied in separate folders for platforms and browsers. Test execution summary report will be provided on every day.

**Post – Test Execution**

Test lead & Offshore PM will provide execution signoff for in test region for code promotion

### Defect Management

Defect review (Triage) meetings will be held throughout project from the day test execution starts for the respective module. Testing team will schedule these meetings daily during the test execution phases.

The purpose of these meetings will be to review, prioritize, and assign defects for resolution during the execution phase. Attendees will normally include Representatives from Development groups, Testing groups, Business and the PM.  Another weekly meeting will be held with Leads of all modules to discuss Testing Dashboard.

1. **Meeting Notification:** will be e-mailed to required participants at least 1 week prior to the start of test execution.

2. **Reports:** Daily defect Reports will be e-mailed just prior to Triage Meeting Participants

3.          Development team will fix the defects based on their priority set by the business team / QA

**Defect Tracking Process**

Testing team will use Microsoft team foundation server to manage defects found during the testing phase.

1. For each defect found the tester will create a defect in TFS and link it to one or more test steps. The tester will also provide screenshots of the defect, steps to reproduce it
2. The tester will then assign the defect to the respective leads for resolution and that lead will in turn assign the defects to the correct developer.
3. Upon resolution the developer will update TFS with the resolution reason for the defect and patch done to fix the issue.
4. Developer will reassign the TFS defect to the tester who opened it by changing the defect status to Resolved.
5. The tester will retest the associated test case(s).
6. If the retest passes, the tester will close the defect.
7. If the retest fails, tester should make a note/description in the defect as to what exactly failed and will reassign the defects to the developer for resolution

**The levels of Severity and Priority within the defect management process are as follows:**

**Severity:** The impact to the testing effort (will be set by the QA team)

|  |  |
| --- | --- |
| **Category** | **Definition** |
| S1 - Critical | Critical issues pertain to areas of core functionality and may prevent testing.  No work around exists. |
| S2 - High | High issues pertain to defects where testing cannot be completed within a module but does not stop all processing. |
| S3 - Medium | Medium defects that are important to fix but would not hold up production.  A normal priority issue could be functionality that is partially missing (e.g., option is omitted from tool bar but not menu), functionality that is not working in non-critical areas of the application, or workarounds are possible. |
| S4 - Low | A defect that is considered minor or defects that is not as important to fix.  A low priority issue usually pertains to cosmetic UI issues or functionality in rarely used areas of the application. |

**Priority:** The order in which the defect is fixed

|  |  |
| --- | --- |
| **Category** | **Definition** |
| P1 - Critical | Any defect that has a significant impact on the application functionality and business perceives them as imperative for deployment. These defects are first to be fixed. |
| P2 - High | Any defect that has a major impact on the application and key business functions. A work around for the functionality exists but is inefficient. These defects are fixed once the immediate defects are resolved. |
| P3 - Normal | Any defect that hinders normal application functionality but has a work-around that can be maintained. Business does not perceive it as critical to resolve and can be addressed within normal resolution timeframe as defined in the project plan. |
| P4 - Low | Any defect that relates to “nice to have” functionality but does not have a negative business impact. These defects are resolved if time permits |

**Closure**

Defects can be closed for several reasons:

* The defects have been re-tested and considered fixed. If the defect is a generic defect, then it will be validated across all the supported browser and marked for closure else it will be validated only against the browser for which its raised
* The defects have been identified as correct functionality (Functions as designed)
* The defects have been identified as a future enhancement and has been captured in the enhancement tracking system (i.e., Something other than TFS)
* The defects are not an application or infrastructure failure (e.g., a data issue)
* The defects are not reproducible
* The defects are a duplicate of an issue that has been previously reported
* If the tester determines the code change has fixed the problem but has created a new defect, he/she will close the original defects and open new defects.

## Test Entry and Exit Criteria

## Entry Criteria

|  |  |
| --- | --- |
| **Region** | **Criteria** |
| Dev-SIT-Offshore | * 100% code completion * Code review feedback from peer developer and PM approval for the same * Unit test results shared by development team * Release notes from Dev team with changes and defects fix details * Stable Dev-Sit test environment * Smoke testing completed by Dev team after deployment and results shared * Required software’s and devices are readily available with testers to commence testing * Testing team to check and ensure the device compatibility for the module with respective development leads * Reviewed and signed off Test cases * Test cases in MTM * Test cases segregated as smoke @ MAT and functional * Test lab with Test cases for Smoke, Functional cases for new enhancements * Note – if there are dependency in TV network for execution of any test cases, the code must be published in devsit onsite box for the tester to validate. |
| SIT | * 100% code completion including approved CR and defect fixes if any * Unit test results shared by development team * Stable SIT environment (no code merge issues) * Pre-Requisite scripts if required are executed * Release notes from Dev team with changes and defects fix details * Smoke testing completed by Dev team * Signoff from Business team or its representative in Dev-SIT for the defect fixes / changes / Enhancements |
| Preprod | * SIT execution 100% completed and signoff provided * MAT execution is 100% done and MTM updated |
| Production | * Preprod execution 100% completed, and signoff provided * MAT execution is 100% done and MTM updated |

## Exit Criteria

|  |  |  |
| --- | --- | --- |
| **Region** | **Criteria** | **Comments** |
| Dev-SIT-offshore | * No S1 and S2 defects * 100% test execution completion for all supported platform * Test results updated in MTM * Test summary report with metrics (Test execution summary metrics, defect metrics) * Code promotion mail from Functional QA / Project manager to development team | * Signoff from QA Lead for code promotion |
| SIT | * No S1 and S2 defects (newly introduced) * MAT is executed and MTM is updated accordingly. 100% MAT success * All the release items are validated | * Signoff from Account Manager of Qatar airways for code promotion to higher level in case any S1 or S2 defect |
| Pre-prod | * No S1 and S2 defects (newly introduced) * MAT is executed and MTM is updated accordingly. 100% MAT success * All the release items are validated | * Signoff from Account Manager from Qatar airways for code promotion to higher level in case any S1 or S2 defects |

## Suspension and Resumption Criteria

In the event a condition exists that warrants a decision to suspend testing, QA will collaboratively address those conditions and associated issues with Business and development to act in the best interest of Qatar airways. QA will take a similar approach in responding to conditions warranting a resumption of testing.

# Risk Management

Enlist the risks and the respective mitigation plans.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Num** | **Risk Title** | **Risk description** | **Impact**  **(High, Medium, Low)** | **Contingency/Mitigation Plan** |
|  | **Resources** | There must be enough resources available to conduct testing. | High | Test lead will regularly monitor resource allocation and raise issues to management |
|  | **Requirements** | Clearly defined functional and UI requirements, along with any changes, are communicated and documented in a timely manner to allow for updates to the Test Plan.  Any requirement changes may affect the validity of the testing that was previously completed | High | QA will work with Program and Project Managers to ensure QA is  1) Included in the change control process and provided an opportunity to conduct risk assessment  2) make resource allocation adjustments, as required. |
|  | **Requirement Changes submitted late in the development life cycle** | Any changes to the project requirements will go through a change control process.  Changes made late in the development process may impact the success of the overall testing schedules/progress | High | QA will work with Program and Project Managers to ensure QA is  1) Included in the change control process and provided an opportunity to conduct risk assessment  2) make resource allocation adjustments, as required. |
|  | **Environment Readiness:** | Environment should be setup properly before it’s handed over to QA | High | Environment readiness is validated via smoke testing from testing team |
|  | **Code** | Code migration and release management | High | Testing team will work with those responsible for code migration to anticipate and mitigate problems, and develop appropriate contingency plans |
|  | **Project Documentation Repository** | Shared project repository by both QA and Dev | Medium | Use one Centralized Repository for the development and testing team. |
|  | **Test execution duration** | It is observed the same QA resource is loaded with multiple project which is scheduled to go to production at the same time. Project prioritization must be done so that QA can concentrate thoroughly on a project and deliver | High | Project prioritization |

# Team Organization

|  |  |  |  |
| --- | --- | --- | --- |
| **S No** | **Resource** | **Responsibilities** | **Location** |
| 1 |  | Tech Lead | Offshore |
| 2 |  | Sr. Tester | Offshore |
| 3 |  | Test Lead | Offshore |
| 4 |  | Project Manager | Offshore |
| 5 |  | Sr. Software Engineer | Onsite |
| 6 |  | Business Analyst | Onsite |

# List of Test Deliverables

* Test Plan
* Test Scenarios
* Test Cases
* Test execution summary and metrics
* Test execution report
* RTM execution report
* SIT execution report
* UAT execution report and log

# Templates

Below are the templates that will be used for Onboarding project

* Test Plan template
* Test Scenario template
* Test Case template
* Defect status template
* RTM

# References

* BRD