Test Plan Document

For

<Application Migration>

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| 1.0 | Oluwafemi Adeoye | 11/03/2022 |  | 12/03/2022 | Test plan for Application migration |

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# Introduction

The Test Plan is designed to prescribe the scope, approach, resources, and schedule of all testing activities of the Application Migration from the legacy technology stack to the latest release.

The plan identifies the items to be tested, the features to be tested, the types of testing to be performed, the personnel responsible for testing, the resources and schedule required to complete testing, and the risks associated with the plan.

# TEST STRATEGY

* 1. **Scope of Testing**

**1.1.1 Feature to be tested**

All backend services defined in software requirement specs will be tested.

What is the usage profile of the legacy application? Chances are it has a relatively small set of functions that get most of the use. These would be high priority targets to check for functionality, performance, and security.

Can the new application be run in parallel with the legacy engine? If it can, a period of parallel operation should be part of the strategy, along with some form of automated or semi-automated checking of outputs.

What is the performance profile of the legacy application? You will want to ensure that the performance of the new application matches or improves on the performance of the legacy app.

Whether there is API test automation of the legacy application and whether it needs to be changed for the new application. If the legacy app has an extensive set of automated API tests, and the new app is not changing the API call signatures or expected responses, these can be used as part of the testing strategy.

What is the essential must-not-fail functions of the legacy application? These are the functions that must be covered first and have automated regression built to cover.

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| --- | --- | --- |
| Module Name | Application Roles | Description |
| Application Migration |  | Migrating from the legacy application to the latest release. |

**1.1.2** **Feature not to be tested**

These features are to be tested existing solutions do not break in the new release

Specs

- Software Interfaces

- Database logical

- Communications Interfaces

- Website Security and Performance

* 1. **Test Type**

In the application migration, these 3 types of testing should be conducted.

- Integration Testing (Individual software modules are combined and tested as a group)

- System Testing: Conducted on a complete, integrated system to evaluate the

system's compliance with its specified requirements

- API testing: Test all the APIs for the software under test

- Performance test: Testing the system for performance reliability

**1.3 Risk and Issues**

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| --- | --- |
| Risk | **Mitigation** |
| Team members lack the required skills for web application testing | Upskill team members by taking courses, attending seminars/workshops, and attending Webinars. |
| Resource constraint | Hiring more resource to help meet delivery. |
| Wrong budget estimate and cost overruns | Establish the scope before bringing the work, pay attention to the project planning and constantly track and measure the progress. |

* + 1. **Who will test?**

The Engineering team will be responsible for testing the project.

**2 TEST OBJECTIVE**

The test objectives are to verify that a stack upgrade migration should not break exiting system.

**3 TEST CRITERIA**

**3.1 Exit Criteria**

Specifies the criteria that denote a successful completion of a test phase

- Run rate is mandatory to be 100% unless a clear reason is given.

- Pass rate is 80%, achieving the pass rate is mandatory.

**4 RESOURCE PLANNING**

**4.1 System Resource**

|  |  |  |
| --- | --- | --- |
| **No.** | **Resources** | **Descriptions** |
| **1.** | Server |  |
| **2.** | Test tool | Develop a Test tool which can auto generate the test result to the predefined form and automated test execution |
| **3.** | Network | A stable internet connection with a speed base of 5 Mb/s |
| **4.** | Computer | Laptop to be made available for the available test resources. |

**4.2 Human Resource**

|  |  |  |
| --- | --- | --- |
| **No.** | **Member** | **Tasks** |
| **1.** | Test Manager | Manages the project.  Defines project direction.  Acquire appropriate resources. |
| **2.** | Test | Identifying and describing appropriate test techniques/tools/automation architecture  Verify and assess the Test Approach  Execute the tests, Log results, Report the defects.  Outsourced members |
| **3.** | Developer in Test | Implement the test cases, test program, test suite etc. |
| **4.** | Test Administrator | Builds up and ensures test environment and assets are managed  and maintained  Support Tester to use the test environment for test execution |
| **5.** | SQA members | Take in charge of quality assurance  Check to confirm whether the testing process is meeting  specified requirements |

**5 SCHEDULE & ESTIMATION**

**5.1** All project task and estimation

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| --- | --- | --- |
| Task | Members | Estimate effort |
| Create the test specification | Test Designer | 180 man-hours |
| Perform Test Execution | Tester | 40 man-hours |
| Test Report | Tester | 16 man-hours |
| Test Delivery | Tester | 20 man-hours |
| Total |  | 256 man-hours |