Test Plan

Document Control

**Revision History**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ver. No.** | **Release Date** | **Created By** | **Reviewed By** | **Approved By** | **Remark** |
| 0.1 | 10-7-21 | Mayuri |  |  | Initial Draft |
| 1.0 |  |  |  |  |  |
| 1.1 |  |  |  |  |  |
|  |  |  |  |  |  |

Contents

Contents 2

1. Introduction 3

1.1. Introduction 3

1.2. Purpose of the Document 3

1.3. Scope of Software Test Plan 3

1.4. Acronyms and Definitions 3

2. Scope of Testing 4

2.1. Features Details 4

2.2. Features not to be tested 4

2.3. Testing Approach 4

2.4. Testing Types 5

3. Test Environment 6

3.1. Hardware 6

3.2. Software 6

3.3. Environmental Configuration 6

3.3.1. Browser Compatibility 6

3.3.2. Device Compatibility 7

3.3.3. Localization 7

4. Testing Criteria 9

4.1. Entry Criteria 9

4.2. Exit Criteria 9

5. Defect Tracking & Defect Classification 10

6. Other Detail 11

6.1. Resource Management 11

6.2. Risk Mitigation & Contingencies Plan 11

6.3. Test Schedule 11

6.4. Activities and Deliverables 11

6.5. Assumptions 11

Version Control 12

# Introduction

## Introduction

This document is a procedural guide for listing the testing activities that should be carried out for the MahaTET Project. It describes the software test environment for testing, identifies the tests to be performed, and provides schedules for test activities.

## Purpose of the Document

## In order to Ensures all Functional and Design Requirements of the School Mate are implemented as specified in the documentation.

* To provide a procedure and to identify the documentation process for Integration, functional and System Testing of MahaTET.
* To identify the test methods for Integration, functional and System Testing of MahaTET.

## Scope of Software Test Plan

This document aims to give brief description about the TET Project. With the help of this document the needs of the company and the solution that will be provided that need will be presented. The purpose of the project is to build an application program to reduce the manual work for managing, students data, and its reports EO information . It tracks all the details about candidate . This document will provide a basis for validation and verification

* Mahatet is Techer Eligibility Test exam which offers Home page
* Student Registration form,
* Payment gateway for exam fee.
* Hall tickets for students.
* Role based login for Admin and EO
* Reports - Centre Information  
  Centrewise allocated candidate

Expense reports .

* QMS Module for Student and Admin

**Dashboard**

* EO
* Admin

## Acronyms and Definitions

This sub-section provides the description of acronyms required to interpret the Software Test Plan.

| Sr. No. | Acronyms | Definitions |
| --- | --- | --- |
|  | MahaTET | Maharashtra Techer Eligibility Test |
|  | PM | Project Manager |
|  | Admin | Administrator |
|  | BRS | Business Requirement Specifications |
|  | EO | Education Officer |

# Scope of Testing



## Features Details

Features to be tested

## Features Details

## Features to be tested

| Sr. No. | Features / Functions to be tested |
| --- | --- |
|  | Candidate Registration – |
|  | Payment Gateway |
|  | Candidate can see Preview , Transaction history , Admit Card and Result. |
|  | Dashboards EO and Admin with Reports. |

## Features not to be tested

As client has not demanded or requested for such application thus not mentioned mobile application

| Sr. No. | Features / Functions not to be tested |
| --- | --- |
|  | No any such mobile application demand. |

## Testing Approach

Test approach describes about the approach which will be followed for testing, i.e.

| Manual Testing | Automated Testing | Performance Testing | Description |
| --- | --- | --- | --- |
|  |  |  |  |

## Testing Types

Following types of testing will be done: Please mark the relevant tests that would be conducted.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Testing Level | Unit | Integration | System | UAT |
| Testing Type |
| Smoke | *Yes* | *Yes* | *Yes* | *yes* |
| Functional | *Yes* | *Yes* | *Yes* | *yes* |
| User Interface | *Yes* | *Yes* | *Yes* | *yes* |
| Database | *Yes* | *Yes* | *Yes* | *yes* |
| Compatibility | *Yes* | *Yes* | *Yes* | *yes* |
| Performance | *Yes* | *Yes* | *Yes* | *yes* |
| Security | *Yes* | *Yes* | *Yes* | *yes* |

# Test Environment



## Hardware

This section states all the hardware resources required for the project.

| Sr. No. | System Type | Configuration / Device Details | Quantity |
| --- | --- | --- | --- |
|  | Desktop | 1. Windows 10 (Operating System) 32 Bit/64 bit (Service Pack1) | 4 |
|  | Web server | Azure webser | 1 |
|  | Database Server | Azure | 1 |
|  | Application Server | Azure | 1 |

## Software

This section states all the software resources required for the project including the Automation & Performance testing tool.

| Sr. No. | Tool | Name of the software | Version/release details | No. Of licenses |
| --- | --- | --- | --- | --- |
|  | Bug Tracking | Jira | 8.16 |  |
|  | Performance Testing | Jmeter | 5.4.1 | Free version |

## Environmental Configuration

## Browser Compatibility

This section states all operating systems and browsers for which testing has to be done.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Operating System | *Windows Vista* | *Windows 10* | *Windows 7* | *MacOS* |
| Browsers |
| *IE 7.0* | *Yes* | *yes* | *yes* | *NA* |
| *IE 8.0* | *Yes* | *yes* | *yes* | *NA* |
| *Firefox3.0.0.5* | *Yes* | *yes* | *yes* | *NA* |
| *Firefox4.0* | *Yes* | *yes* | *yes* | *NA* |
| *Opera* | *yes* | *yes* | *yes* | *NA* |

## Localization

This section states all the languages supported by the system with respect to browsers.

|  |  |  |  |
| --- | --- | --- | --- |
| Browser | *Microsoftedge* | *Firefox 3.0.0.5* | *Firefox 2.0.0.13* |
| Language |
| *English* | *yes* | *yes* | *yes* |

# Testing Criteria



## Entry Criteria

Entry criteria will define when to start the testing activity. This can include:

* Business needs are confirmed
* Business Requirement document prepared
* Estimation is done
* Acquisition of resources is complete
* Project kick off meeting is done and sign off is given by customer
* Unit testing of the individual services is done.
* Documentation of the infrastructure and environment is accomplished.
* The specified hardware/ software is in place
* The test plan document is reviewed and approved by the development Lead/ Manager
* The test cases and the expected results are documented and approved by the QA Lead and the Project Lead/Manager

## Exit Criteria

Exit criteria should define the criteria to end the testing activity. This can includes points like:

* All the testing has been performed as defined
* 100% test coverage is met
* All the major/critical bugs raised are resolved, retested, and closed
* Product goes live with optimal quality and standards meeting customer requirements and satisfaction
* All documentation free of comments or revision tracking
* All open bugs are tracked by the test team and the impacts of the bugs on the solutions fully understood.
* Test cases successfully passed all test cycles
* Completion of all pertinent corrections from internal and external reviews and edits.

# Defect Tracking& Defect Classification

| Sr. No. | Defect Priority | Map Priority with Tool | Description |
| --- | --- | --- | --- |
| 1. | P1  (Highest) | 1st | * Further development and/or testing cannot occur until the defect has been repaired. * The system cannot be used or not advisable to use until the repair has been affected. * The defect must be resolved as soon as possible because it is impairing development/and or testing activities OR it is violating an important business constraint (Implementation contrary to requirements). * System use will be severely affected/or will be insecure to the user until the defect is fixed |
| 2. | P2  (High) | 2nd | * A major feature/function does not work, is significantly impeding Production and there is a workaround, but the workaround is too cumbersome to maintain for the long term |
| 3. | P3  (Medium) | 3rd | * An important feature does not work but is not causing significant impact in Production. * This can be a change request as well. |
| 4. | P4  (Low) | 4th | * The defect should be resolved in the normal course of development activities. It can wait until a new build or version is created. * The defect does not result in a failure. * The defect is an irritant which should be repaired but which can be repaired after more serious defects have been fixed. * This can be a change request as well. |
| 5. | P4  (Lowest) | 5th | * A ‘nice to have’ fix. * This can be a change request as well |

# Other Detail



## Resource Management

Refer Project Plan or Communication spreadsheet for roles and responsibilities.

| **Sr. No.** | **Roles** | **Responsibilities** |
| --- | --- | --- |
|  | Test Lead -  Mayuri G | * Prepare Test Plan * Status Reporting * Identify Test Scenarios * Assign the tasks to team * Provide QA Sign Off |
|  | Test Engineer -  Madhav | * Write Test Cases * Execute Test Cases * Provide Execution Report * Support End Users for UAT * Provide Known Issues List |

## Risk Mitigation & Contingencies Plan

Refer risk and opportunity management plan in project plan and risk and opportunities are tracked in the risk and opportunity tracker

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Risk** | **Mitigation Plan** |
| 1 | For Dashboard – At the time, when number of logins exceeds out of range Bar chart can’t display. | On Server Side Duplicate logins should be replaced instead of inserting new entry. |
| 2 | If developers send build without performing smoke test. | Testers should start testing with smoke testing. |
| 3 | Defects not resolved and also, they are not mentioned in release note, there is risk. Testing will not proceed. | Tester should communicate with developer whenever, the new build is received |

## Test Schedule

Document the schedule in which the application under test is to be made available for testing, and the estimated time for executing test cases. Specify if frequent builds will be provided on a regular basis during the test cycle, or when system components are expected to be ready for testing.

Refer project schedule (MPP) for testing related activities

## Activities and Deliverables

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Activity | Deliverables at the end of this Activity | Owner |
| 1. | QA Effort Estimation | Project schedule/MPP document | Test Lead |
| 2. | Test Plan Creation | Test Plan | Test Lead |
| 3. | Test Plan Review | Test Plan Review Log | Test Lead |
| 4. | Test Design Specification | Test Design Specification  Document | QA Engineer |
| 5. | Test Design Specification Review | Test Design Specification  Review Log | QA Lead / Project Lead |
| 6. | Test Case Creation | Test Cases,  QA Checklist, Test Data | QA Engineer |
| 7. | Test Case Review | Test Cases Review Log | QA Lead / Project Lead |
| 8. | Update Requirement Traceability Matrix | Requirement Traceability Matrix | QA Engineer |
| 9. | Test Case Execution | Test Execution Report, Bug Report, Project Health Status Report | QA Engineer |

## Assumptions

* All functional requirements are properly defined and meet users’ needs.
* The application should be delivered on the expected delivery date according to the schedule. Delivery and downtime delays shall cause adjustments in the test schedule and can become a risk for the on-time product delivery.
* Test team should be involved in initial project discussions and should have a working knowledge of the proposed production system prior to integration and system testing.
* The number of test cases that have a direct impact upon the amount of time it takes to execute the test plan.
* During the test process, all required interfaces are available and accessible in the Testing environment.
* All incidents identified during the testing are documented by Test Lead and the priority and severity is assigned based upon the previously defined guidelines.
* Communication between all groups on the project is paramount to the success of the project; therefore Test Lead should be involved in all relevant project communication.
* Sufficient time is incorporated into the schedule not only for testing, but also for unit testing by developer, test planning, verification of defect fixes, and regression testing by Test Lead
* Test Build will be provided by Development Team. Daily Build Process will be followed
* Build will be accepted after performing a quick smoke test.
* The developers performs adequate unit testing before sending modules to Test Lead.
* The Developers fix all the defects identified during the unit testing prior system testing. Else the defects should be mentioned in the release notes.
* There is no downtime.
* Testing occurs on the most current version of the build in the testing environment.
* During the test process, all required interfaces are available and accessible in the Testing environment.
* Defect resolution does not delay/obstruct testing.

## Version Control

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ver. No. | Release Date | Created By | Reviewed By | Approved By | Remark |
| 0.1 | 3rd Nov 17 | Prasad M |  |  | Initial Draft |
| 1.0 | 29th Dec 17 |  | SEPG |  | Review comments incorporated |
| 1.1 | 15 Jun 21 | Mugdha | Sumit K |  | Updated based on the CMMI Model 2.0 |
|  |  |  |  |  |  |