ABC School

Test plan

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# Test plan Identifiers

Master test plan for ABC school software v1.0

# Reference

-Mockups ( Invision app).

-Requirement document.

# Introduction

It includes scope, testing strategy/Approach, risk and tools. This document will clearly identify what the test deliverables will be and what is regarded as in scope,out of scope and the testing approach.

## Purpose

The main purpose of this document is

1. To describe the plan that can be used for validating the functionality of the system.
2. To describe the activities used for generating the data and validating.
3. This document also talk about scope and limitations and priorities of the different entities.
4. It is used to identify the features to be tested, features not to be tested, resource requirements, testing schedule, test deliverables, prerequisite for test execution, bug reporting etc.

## Project Overview

This software provides a much more effective way of keeping the data of the students so that teachers can focus on the students having less grades than others and provide more guidance.Detailed school records provide parents with peace of mind that their child’s academic and personal development is being looked after, as well as their general safety and daily wellbeing. Effective data analysis helps to focus on what the main weakness of the student is where the teacher has to have more focus on. It helps to provide detailed information of each of the students and can get it in csv format.

# Test Items

The items that should be tested are:

1. The login page.

* The email and password form.
* The submit button.

1. The student list view page.

* The Logo
* The logout button
* The list table of student
* The search button
* The sorting in table

1. The student detail view page.

* The detail information validation.

1. The CSV file generator.

# Features to be Tested

The features that should be tested are:

1. Login as school admin and view list of students.
2. View details and scores of students.
3. Can Search according to the name and score.
4. Able to sort scores.
5. Export detail of student in CSV format.

# In Scope

In inscope we describe the testing that can be done within the given requirement and they are as follows:

### 1.Functionality testing:

To check the functionality of the system is as per user requirement.

* Sanity Testing:

It checks the bug fixes in the new or updated build.

### 2.Smoke Testing:

It checks whether the main functionality of the system is working correctly or not.

### 3. UI/UX Testing:

It checks the different aspects of user experience to determine the best way for a website and its elements to interact with its audience.

### 4.API testing:

It checks if the correct json data are fetched or not.

### 5.Regression Testing:

It check if the changes have not affected unchanged part of the modules.

# Out of scope

Some of the testing out of scope are:

### Performance Testing:

It is the process of determining the speed, responsiveness and stability of a computer.

* load testing: test by applying expected data to the system.
* Stress testing: testing by applying more then expected data to the system to find its breakpoint.
* Network testing: testing to check the speed of software in different network like 3G , 2G.
* Cross Browser testing:testing to check how the software work on different browsers like ipad, mobile.

# Testing Strategy/Approach

The project is using an agile approach, with weekly iterations. At the end of each week the requirements identified for that iteration will be delivered to the team and will be tested.

## Test data preparation

Test data are prepared according to the Data specification document of the system. We use Decision tree testing technique for the login page where we have two fields email and password both having different input combinations either it is valid or invalid.

## Test to be conducted

Smoke testing  
After the build completion, using test cases it checks if the login page buttons are working as its valid functionality by checking its acceptance criteria.

UI/UX testing  
We can check accessibility and availability test to see if the provided submit or login button have the correct accessibility link to its destination path. We can check the pixel size of each element using high fidelity mockups.

API testing  
API testing is performed by verifying correct HTTP status code, verify response header and checks if the json data fetched are correct. It is performed by using POSTMAN tool. For example: When the status is 200 then its successful.

Sanity testing  
It test the functionality of login page, student view page,student detail page, export to CSV and logging out using test cases and testing data and check if validation criteria matches.

Regression testing  
If any module functionalities are changes then related modules are working as per it should also should be checked using functional requirement document we get to know the functional flow of the system and check them using its validation criteria.For example: If any changes are made in the login functionality of the system then we check the related affected part like in the sign up page functionality is working correctly or not.

# Assumptions/Risks

Assumptions:

1. Test data prepared are sufficient for validating the system functionality.
2. Test data covers most of the scenarios.
3. The user stories are valid.

Risk:

The risk that can take place in this software according to the assumptions, its impact on the software, Probability of the risk occurrence and mitigation plan.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Risk | Impact | Probability | Mitigation Plan |
| 1. | Test data prepared may not be sufficient. | High | Medium | Test data preparation according to the user requirements. And verify test data are sufficient. |
| 2. | Test data may not cover most of the scenarios. | High | High | Data validation should be done by client and stakeholders. |
| 3. | Scope Creep | High | Medium | Each iteration, functionality will be closely monitored. Priorities will be set and discussed by stakeholders. |
| 4. | Changes to the functionality may negate the tests already written and we may lose test cases already written. | High | Medium | Work according to the prerequisites.Make sure changes do not negate test cases. |

# Tools

Postman ( for API testing).

# Test Deliverable

1.Test plan document.

2.Test cases.

3.Summary Reports.

4.Metrics

# Testing Environment

The people responsible for testing in different testing environment are:

|  |  |
| --- | --- |
| Environment | Testers |
| Browser | IE/firefox |
| OS version | Windows 10 , 8 , Mac OS catalina |
| Database | MS SQL |
| Programming language | PHP |

# Bug Report

Bug report keeps track of all the bugs that are found during the execution of the test cases and mark them according to their priority.The higher priority bug when fixed are checked and if the functionality is as per the requirement it is marked as ‘done’ which is how QA verifies it.