# TEST PLAN DOCUMENT

# ICTAK WEBSITE

Team 1

Prepared by : Sona KP, Parvathy B Suresh , Fabeena KS

Dated : 18-05-2024

# Table of Contents

# Version History

The version history of a test plan is a chronological record of changes, updates, and revisions made to the document throughout the software testing life cycle.

| Version | Date | Author | Description of changes |
|---|---|---|---|
| 1.0 | 14/05/24 | sona | Initial draft of the test plan |
| 1.1 | 15/05/24 | sona | Added and updated Introduction, Objective, Scope of Testing, Test Environment, Responsibilities |
| 1.2 | 15/05/24 | Parvathy | Added and updated Approach, Pass/Fail Criteria, Entry & Exit Criteria, Test Deliverables and Resource Planning |
| 1.3 | 15/05/24 | Fabeena | Added and updated Schedules,Assumptions,Risk and Mitigation,Test Reference and Conclusion. |
| 1.4 | 17/05/24 | Sona | Updated Scope of Testing, Reference |
| 1.5 | 17/05/24 | Parvathy | Updated Human Resource and added Approval table |

## 1. Introduction

This test plan describes the testing approach and overall framework that will drive the testing of the ICTAK Website. It ensures that the application meets the requirements and is free of defects.

- Project Outline : Planning, Scheduling, Estimation, Risk analysis and mitigation
- Project Purpose:The purpose of the testing is to verify the functionality of the application is working properly or not

This test plan document is for the reference of the testing team, Project manager and developer team hence the contents must be in the spectrum of these entities and team.

## 2. Objective

The objective of the test is to verify that the functionality of ICTAK Website works according to the specifications.

Main Objectives are :

- Identify existing project information and the approach that should be followed.
- Login form and Sign up form is to be verified by the testing team using various testing types, levels and techniques.
- Verify Course Registration process. Admin should be able to view the details in the dashboard after successful registration, and download it as an excel file.
- Verify and validate Partnership and Membership application form and user should get confirmation mail after successful registration. Admin should be able to download user details in excel file
- Test whether Paatshala anchor tag is redirected to retail.ictkerala.org page or not.
- Verify contact us form, and page should contain the physical address and contact details of ICTAK .
- Test whether the website meets all the functional and nonfunctional requirements

- To make sure that it meets all customer requirements by successfully passing all test cases.
- To communicate the project Schedules and Deadlines.
- To define the various testing strategies and testing tools used to complete the Testing life cycle of this project.

## 3. Scope of Testing

It includes the features, functions, requirements, risks, and assumptions of the software under test

### 3.1. Features To Be Tested -

- Test navigation links to other pages within the website.
- Test the functionality of CTA buttons to ensure they lead to the intended destination or action on the homepage.
- Test the rotation and navigation of slider or banner images or content on the homepage.
- Verify all text content, images, and multimedia elements for accuracy and relevance on the AboutUs page.
- Verify and Validate Login form fields and Sign Up form fields
- Verify and validate Course Registration Form with custom validation
- Verify and validate Academic membership, Corporate membership and partnership registration form.
- Verify and validate the event registration form fields and the functionality of the event registration button.
- Verify and validate the functionality of the Contact Us form, the Send Message button, and the pop-up message after completion.
- Test calendar display, event creation, editing, and deletion functionalities.
- Verify that users can view courses, memberships and upcoming events.

### 3.2. Features Not To Be Tested

- Integration Testing- Accounts page, Homepage, Social Media
- Paatshala LMS

### 3.3. In-Scope

- Unit Testing
- System testing
- Performance testing.

### 3.4. Out-Scope

- Regression Testing
- API testing
- Security Testing

## 4. Approach

A test approach is the test strategy implementation of a project, defining how testing would be carried out. An approach in which the test design process is initiated as early as possible in order to find and fix the defects before the build is created.Several different tests must be executed to ensure that the ICTAK Website facilitates hassle-free experience.

### 4.1. Functional Testing

Functional testing checks if ICTAK Website works in accordance with predetermined requirements.

- Unit Testing: This process involves the testing of particular system components.These components are isolated from other portions and tested for their input, output and module procedures.
- Integration Testing : Integration testing procedures incorporate system components and how they perform together functionally between one another.
- System Testing

### 4.2. Non-Functional Testing

- Performance Testing: Performance testing evaluates how software performs under different conditions.Performance testing is necessary to ensure that software operates at expected quality levels at all times.

## 5. Pass/Fail Criteria

- It defines when a test has passed or failed.It describes the process and overall standards for evaluating the test results.
- It describes the pass/fail criteria for each of the items described in test
- An item will be considered as ‘Pass’ if it meets the ‘Expected Outcome’ defined in the corresponding test case ,else ‘Fail’.
- 90% of the test cases must pass
- All medium and high severity defects must be fixed
- Test coverage must be at least 90%

# 6. SUSPENSION AND RESUMPTION CRITERIA

## 6.1. Suspension Criteria:

- Critical bugs are open and they are blocking testing.
- All remaining test cases are blocked by open bugs

**6.2. Resumption Criteria** : When the problem that caused the suspension had been resolved, testing activities can be resumed.

# 7. Entry & Exit Criteria

## 7.1. Entry Criteria

- Analyze the requirements of the application
- Make sure that all the hardware platforms are successfully installed, configured and functioning properly.
- Test data readiness
- Check whether all software testing tools are successfully installed and working properly
- The testing environment should be ready.
- The team has proper knowledge about the functionalities
- Test Cases

## 7.2. Exit Criteria

- Execution of all test cases.
- Sufficient coverage of the requirements and functionalities under the test.

- Verify that there are no critical or high priority bugs that have been left out.
- Verify all expected results and actual results.

## 8. Test Deliverables

Test deliverables are provided as below:

### 8.1. Before Testing:

- Test Plan document
- Test Case document
- Test scenarios
- Test Design specifications

### 8.2. During Testing:

- Test Tool Simulators
- Test Data
- Requirement Traceability Matrix(RTM)

### 8.3. After Test cycles are Over

- Test Results
- Test Summary Report

## 9. Test Environment

The test environment is a crucial aspect of the testing process, encompassing the hardware, software, network configurations, and other essential components needed to conduct testing activities effectively.

### 9.1. Hardware Configuration:

- Laptop / PC
- Operating System: Windows 11
- Hardware: Intel i3 processor, 8GB RAM

### 9.2. Software Configuration:

- Web Server : Apache Tomcat 9.0
- Database: MySQL 8.0

- Browser: Google Chrome, Microsoft Edge

### 9.3. Network Configuration:

1. Internet connection with 1 to 5 MBPS speed
2. LAN Setup for internal comms.

### 9.4. Tools and Testing Frameworks:

- Tools like Jmeter, selenium, Maven,TestNG are used for automation
- Google docs, Sheet or MS Office are used for documentation
- Jira for task and team management
- Version control using GitHub

## 10. Responsibilities

### 10.1. Test Manager:

- Responsible for creating a suitable Test plan.
- Should assign roles and responsibilities to the members of the test team
- Manage the whole testing Process.
- Review the test scenarios, and test cases submitted by the test team individuals.
- Prepare the test progress reports and test summary reports

### 9.2 Testers:

- Prepare Test Scenarios
- Prepare Test Cases for each functionality that must be tested
- Execute the tests.

### 9.3 Developer in Test:

- Implement the test cases, test program, test suite etc.

### 10.2. Test Administrator:

- Builds up and ensures Test Environment and assets are managed and maintained.
- Support Tester to use the test environment for test execution .

## 11. Resource Planning

### 11.1. Human resource

| Members | Task |
|---|---|
| Sona KP<br><br>Parvathy B Suresh<br><br>Fabeena KS | ● Design and prepare Test plan and Test cases<br>● Execute the tests<br>● Add new or pending test cases and test scenarios<br>● Testng report creation<br>● Performance testing<br>● RTM Creation<br>● Jira Report<br>● Integration and deployment of code in Github |

### 11.2. System Resource

| SL.NO | Resource | Description |
|---|---|---|
| 1 | Computer | Personal computer, Intel i3 processor, 8GB RAM, operating system Windows 11 |
| 2 | Network | LAN Setup with 1 to 5 MBPS speed |
| 3 | Test Tool | Jmeter, selenium, Maven, TestNG, Jira<br>Microsoft Excel |

| | | |
|---|---|---|
| 4 | Server | MySQL 8.0, Apache Tomcat 9.0, Google Chrome, Microsoft Edge |

## 12. Schedules

| Task | Deliverable | Members | Week(Duration) |
|---|---|---|---|
| Project understanding and planning | Test plan document | Sona,Parvathy,Fabeena | 0-1(11-18 may 2024) |
| Preparation of test cases | Test Case | Sona,Parvathy,Fabeena | 1-2(18-25 may 2024) |
| Automation testing | - | Sona,Parvathy,Fabeena | 2-3(25 may-31 Aug 2024) |
| Execution of test cases | - | Sona,Parvathy,Fabeena | 2-3(25 may-31 Aug 2024) |
| Reporting issues | Issues Log | Sona,Parvathy,Fabeena | 2-3(25 may-31 Aug 2024) |
| Performance testing | - | Sona,Parvathy,Fabeena | 3-4(1 -8 june 2024) |
| Reporting the findings and deployment | Test Report | Sona,Parvathy,Fabeena | 4-5(1-8 june 2024) |

## 13. Assumptions

- It is assumed that the ICTAK website will be accessible across a variety of devices, including desktops, laptops, tablets, and mobile phones, with consistent performance and user experience.
- The content management system (CMS) used for the ICTAK website is assumed to be robust and capable of efficiently handling content updates, additions, and modifications without compromising website functionality or user accessibility.

- It is assumed that the ICTAK website complies with relevant accessibility standards and guidelines, ensuring that all users, including those with disabilities, can navigate and interact with the website effectively.
- The security measures implemented on the ICTAK website, such as encryption protocols, firewalls, and secure authentication mechanisms, are assumed to be effective in safeguarding user data and protecting against cyber threats, ensuring the confidentiality and integrity of user information.
- It is assumed that the website's integration with third-party services, such as payment gateways or social media platforms, is seamless and error-free, facilitating smooth user interactions and transactions without disruptions or technical glitches.
- The ICTAK website is assumed to be compliant with relevant regulatory requirements and industry standards, including data protection regulations (e.g., GDPR), ensuring legal compliance and mitigating potential risks associated with non-compliance.

## 14. Risk and Mitigation

**Resource Constraints:**

- Risk: Insufficient resources (human, hardware, or software) could lead to delays or incomplete testing.
- Mitigation: Regularly monitor resource allocation, prioritize critical tasks, and Consider outsourcing or hiring additional resources if necessary.

**Scope Creep:**

- Risk: Changes in project requirements or scope can impact test planning and execution.
- Mitigation: Clearly define and freeze project requirements early. Establish a change management process and assess the impact of any changes on testing activities.

**Incomplete Requirements:**

- Risk: Lack of clear and complete requirements may lead to ineffective testing.
- Mitigation: Work closely with stakeholders to obtain comprehensive requirements.
- Document assumptions and seek clarification on ambiguous or unclear points.

**Schedule Delays:**

- Risk: Delays in development or other project activities may affect the testing schedule.

- Mitigation: Regularly track project progress, communicate with development teams, and have contingency plans for potential delays. Adjust the testing schedule accordingly.

**Unstable Test Environment:**

- Risk: Issues with the test environment, such as unavailability or instability, can hinder testing.

- Mitigation: Set up a stable and dedicated test environment early in the project. Implement version control for test environments and establish procedures for environment configuration.

**Defect Leakage:**

- Risk: Some defects may escape detection during testing and appear in the production environment.

- Mitigation: Conduct thorough test case reviews, utilize multiple testing techniques, and perform rigorous regression testing. Implement continuous integration and automated testing to catch defects early.

**Lack of Test Data:**

- Risk: Inadequate or inaccurate test data can impact the effectiveness of testing.
- Mitigation: Develop a comprehensive test data strategy, create realistic and diverse datasets, and implement data masking techniques for sensitive information.

.

**Dependency Risks:**

- Risk: Dependencies on external systems or services can introduce risks beyond project team's control.

- Mitigation: Identify and document dependencies early. Collaborate with external teams, conduct integration testing, and have contingency plans for dependency-related issues.

**Inadequate Communication:**

- Risk: Poor communication within the testing team or with other project Stakeholders can lead to misunderstandings and inefficiencies.

- Mitigation: Establish clear communication channels, conduct regular team meetings,and use collaboration tools. Ensure that all team members are well-informed project updates and changes.

**Test Data Privacy and Security:**

- Risk: Test data containing sensitive information may pose privacy and security risks.
- Mitigation: Implement data masking and anonymization techniques to protect sensitive information during testing. Ensure compliance with data protection regulations.

**Budget estimation :**

- **Risk:** Wrong budget estimate and cost overrun.

● **Mitigation**: Conduct a thorough and detailed project estimation process, involving relevant stakeholders, project managers, and financial experts. Implement robust project management and monitoring system to track budget expenditures against the planned budget.

# 15. Test References

## 15.1. Websites

15.1.1. What Is a Test Plan and How to Write One? - QA Madness

15.1.2. What is Test Plan? | BrowserStack

15.1.3. Test Plan Template (Sample Document Example) (guru99.com)

15.1.4. How to Write Test Cases with Examples (guru99.com)

15.1.5. How to Write a Good Bug Report? Tips and Tricks (softwaretestinghelp.com)

15.1.6. A Complete Test Plan Tutorial: A Comprehensive Guide With Example

## 15.2. Plan Template Docs:

15.2.1. CDC_UP_Test_Plan_Template.doc (live.com)

15.2.2. test-plan-template.docx (live.com)

15.2.3. TestPlanTemplate.pdf (csun.edu)

# 16. Conclusion

The test plan for the ICTAK website embodies a comprehensive commitment to ensuring quality, reliability, and user satisfaction. Through meticulous testing methodologies, we have identified key insights, celebrated achievements, and candidly addressed challenges, fostering a culture of continuous improvement. Our dedication to excellence underscores the pivotal role of testing in upholding the integrity of ICTAK's digital presence. Looking forward, we remain poised to embrace innovation, optimize processes, and deliver exceptional experiences, reaffirming our commitment to excellence and the continual evolution of the ICTAK website.

## 17. Approval

| Name | Role | Review Date |
|---|---|---|
| Mr. Subin | Project Mentor | 18/05/2024 |