**Test Plan for “PetClicnic”**

**1. Introduction**

**1.1 Purpose**

The purpose of this Test Plan is to define the testing strategy, scope, objectives, resources, schedule, and deliverables for testing the “Web Application and Backend “. This document outlines the overall approach to ensure that the web application and Backend meets the specified requirements and performs as expected.

**1.2 Scope**

This Test Plan applies to the testing of “PetClinic web” and “PetClinic Backend Rest”, which includes functional as well as API validation.

**Owner Management:**

* Add a new owner.
* View, edit, or delete owner details.

**Pet Management:**

* Add a new pet
* View, edit, or delete pet information.

**Veterinarian Management:**

* View a list of veterinarians.
* Add, update, and delete veterinarian details.

**Specialties:**

* Manage veterinary specialties (e.g., dentistry, radiology, surgery).
* Add new specialties and assign them to veterinarians.

**2. Test Objectives**

The objectives of the testing activities are to:

- Ensure the application functions as per the requirements.

- Validate the PetClinic frontend application.

- Validate the PetClinic Backend application.

-Perform the E2E testing of the PetClinic application.

**3. Testing Scope**

**3.1 In-Scope**

- Functional Testing

- User Interface (UI) Testing

- Cross-browser Validation

- API Testing

**3.2 Out of Scope**

- Non-functional Testing

-Hardware Testing

**4. Testing Approach**

**4.1 Types of Testing**

-Functional Testing: Validating that the system performs its intended functions according to the requirements.

- API Testing: Validating the CRUD operation of the Rest Application.

**5. Test Environment**

The test environment will include:

Browsers: Chrome, Firefox (latest stable versions).

Devices: Desktop (Windows/Mac)

Operating Systems: Windows, macOS

**6. Test Deliverables**

The deliverables for the testing phase include:

- Test Plan document.

- Test Cases

- Automate E2E Test Cases.

- Test Reporting [Extent and HTML].

- Repository URL

**7. Entry and Exit Criteria**

**7.1 Entry Criteria**

- All test environments are set up and accessible.

- Requirements are finalized and approved.

- Test Cases are reviewed and approved.

- Test Data is available.

**Exit Criteria**

- All critical defects are fixed and retested.

- 95% of all planned test cases are executed.

- Test Summary Report is approved.

**8. Testing Schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr No. | **Task** | **Start Date** | **End Date** | **Responsible** | **Status** |
| 1 | Test Planning | 23/09/2024 | 24/09/2024 | Shubhranshu | Done |
| 2 | Test Case Design | 23/09/2024 | 24/09/202445559 | Shubhranshu | Done |
| 3 | Test Case Review | TBD | TBD | Kontron | Pending |
| 4 | Test Execution | 24/09/2024 | 25/09/2024 | Shubhranshu | Done |
| 5 | Test Closure | 26/09/2024 | 26/09/2024 | Kontron | Pending |

**9. Risks and Mitigation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr No.** | **Risk** | **Mitigation** | **Impact** | **Probability** | **Risk Score** |
| 1 | Resource constraints | Allocate backup resources or prioritize critical test cases. | Project delay, reduced test coverage | High | High |

**10. Responsibilities**

|  |  |  |  |
| --- | --- | --- | --- |
| Sr No. | **Role** | **Responsibilities** | **Responsibility** |
| 1 | QA Manager | Oversee testing activities, review reports. | Kontron |
| 2 | Test Lead | Manage test team, assign tasks, ensure progress. | Kontron |
| 3 | Test Engineer | Design, execute test cases, log defects | Shubhranshu |

**11. Tools and Resources**

- Automation: Selenium WebDriver, TestNG, BDD Cucumber Framework

- Version Control: GitHub

-CI/CD: Jenkins and GitHub

**12. Test Case Design**

Test cases will be designed to cover all functional aspects of the web application and API Validation.

**13. Test Data**

Test data will be prepared based on the following:

- Valid data covering all possible scenarios.

- Invalid data to ensure proper validation and error handling.

**14. Test Automation Strategy**

Automation will be implemented for regression and repetitive tests. Tools like Selenium and TestNG will be used to automate the web UI tests. The automation scripts will focus on the following areas:

- Smoke Tests

- Regression Suite

- Cross-browser testing

**15. Defect Management**

Defects will be logged, tracked, and managed using [Defect Management Tool] (e.g., JIRA). Each defect will be categorized by severity and priority, and defect reports will be shared with stakeholders.

**16. Communication Plan**

- Daily SCRUM meetings (Stand Up) for status updates.

- Weekly reports to stakeholders.

- Immediate notification for high-priority defects.

**17. Approval**

The Test Plan will be reviewed and approved by the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No** | **Name** | **Role** | **Signature** | **Date** |
| 1 | Kontron | QA Manager |  | 26/09/2024 |
| 2 | Kontron | Project Manager |  | 26/09/2024 |
| 3 | Kontron | Product Owner |  | 26/09/2024 |