**Pet Store API**

**Test Plan**

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# Introduction

This document serves as the test plan created to communicate the scope, approach, resources, and schedule of all testing activities of the project Pet Store. The plan will identify the items to be tested, the type 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

## Scope of Testing

## **Feature to be tested**

All the following features of the Pet Store API are required to be tested:

|  |  |  |
| --- | --- | --- |
| Module Name | Applicable Roles | Description |
| Add a new Pet to the Store | Manager  Store Clerk | **Manager:** a manager can add new pets to the store  **Store Clerk:** stork clerk can add new pets to the store |
| Update Existing Pets Information | Manager  Store Clerk  Customer | **Manager:** a manager can update existing pets in the store information  **Store Clerk:** stork clerk can update existing pets in the store information  **Customer:** customers can update their pet information |
| Find Pets by Status | Manager  Store Clerk | **Manager:** a manager can find a pet by one of the following statuses: available, pending, or sold.  **Store Clerk:** a store clerk can find a pet by one of the following statuses: available, pending, or sold. |
| Find Pet by ID | Manager  Store Clerk | **Manager:** a manager can find a pet by its ID  **Store Clerk:** a store clerk can find a pet by its ID |
| Update a Pet in the Store with form data | Manager  Store Clerk | **Manager:** a manager can update a pet information with form data  **Store Clerk:** a store clerk update a pet information with form data |
| Deletes a Pet | Manager  Store Clerk | **Manager:** a manager can delete a pet from the store  **Store Clerk:** a store clerk can delete a pet from the store |
| Uploads an Image | Manager  Store Clerk  Customer | **Manager:** a manager can upload an image of the pet  **Store Clerk:** a store clerk upload an image of the pet  **Customer:** Customer can upload an image of their pet |
| Return Pet Inventories by Status | Manager  Store Clerk | **Manager:** a manager can find pet inventories by status  **Store Clerk:** a store clerk can find pet inventories by status |
| Place an Order for a Pet | Manager  Store Clerk | **Manager:** a manager can place an order for a pet  **Store Clerk:** a store clerk can place an order for a pet |
| Find Purchase Order by ID | Manager  Store Clerk | **Manager:** a manager can find an order by ID  **Store Clerk:** a store clerk can find an order by ID |
| Delete Purchase Order by ID | Manager | **Manager:** a manager can delete purchase order by ID |
| Create User | Manager  Store Clerk | **Manager:** a manager can create new user  **Store Clerk:** a store clerk can create new user |
| Create List of Users with given Input Array | Manager | **Manager:** a manager can create list of user based off a given input array |
| Logs User into the System | Manager | **Manager:** a manager can log user into the system |
| Logs out Current Logged in User Session | Manager | **Manager:** a manager can log out current logged in user session |
| Get User by User Name | Manager  Store Clerk | **Manager:** a manager can retrieve user by user name  **Store Clerk:** a store clerk can retrieve user by user name |
| Updated User | Manager  Store Clerk | **Manager:** a manager can update an existing user  **Store Clerk:** a store clerk can update an existing user |
| Delete User | Manager | **Manager:** a manager can delete an user |

### Feature not to be tested

These features will not be tested because they are not included in the software requirement specs

* User Interfaces
* Hardware Interfaces
* Software Interfaces
* Database Logical
* Communications Interfaces
* Website Security and Performance

## Test Type

In the project Pet Store, there’s one type of testing being conducted.

* **API testing:** test the API creates, reads, updates, and deletes for the application under test

## Risk and Issues

|  |  |
| --- | --- |
| Risk | Mitigation |
| Team member lack the required skills for website testing | Plan **training course** to skill up you members |
| The project schedule is too tight; it’s hard to complete this project on time | Set **Test Priority** for each of the test activity |
| A lack of communication during Scrums puts Sprint deliverables at risk | Ask each team member during Scrum meeting if they’re facing any **blockers or risks** |

## Test Logistics

### Who will test?

The project should use **QA Engineers** and **Business Analysts** as the testers.

### When will testing occur?

The tester will start the test execution when all the following inputs are ready

* Software is available for testing
* Test Specification is created
* Test Environment is built
* Enough human resource for testing

# Test Objective

The test objectives are to verify the functionality of Pet Store API; the project focuses on testing user, store, and pet endpoints to ensure all these endpoints function as specified. The testing will be completed using Postman.

# Test Criteria

## Suspension Criteria

If the team members report that there are 40% of test cases failed, suspend testing until the development team fixes all the failed tests.

## 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**.

# Resource Planning

## System Resource

|  |  |  |
| --- | --- | --- |
| No. | Resources | Descriptions |
| 1. | Server | * Need a database server * Web Server |
| 2. | Test Tool | Postman |
| 3. | Network | Setup LAN Gigabit and 1 internet line with the speed at least 5 Mb/s |
| 4. | Computer | At least 1 computer run Windows 10 |

## Human Resource

|  |  |  |
| --- | --- | --- |
| No. | Member | Tasks |
| 1. | Tester | * Execute the tests, log results, and reports defects * Identify test techniques and tools |
| 2. | Developer in Test | Implement the test cases, test suite, test scripts, etc. |
| 3. | Test Administrator | * Builds up and ensures test environment and assets are managed and maintained * Support Tester to use the test environment for test execution |
| 4. | SQA Members | * Take charge of quality assurance * Checks to confirm whether the testing process is meeting specified requirements |
| 5. | Test Manager | * Acquires appropriate resources * Define project directions |

# Test Environment

The following is required for the test environments:

* Operating systems: Windows, Mac OS, Android
* Operating system versions: 32-bit vs 64-bit, Red Hat vs Ubuntu
* Network requirements: HTTP, HTTPS, etc.

# Estimation

|  |  |  |
| --- | --- | --- |
| Task | Members | Estimate effort |
| Create the test specification | Test Designer | 4 man-hour |
| Perform Test Execution | Tester, Test Administrator | 1 man-hour |
| Test Report | Tester | 1 man-hour |
| Test Delivery |  | 2 man-hour |
| Total |  | **8 man-hour** |

# Test Deliverables

Test deliverables are provided as below

## Before testing phase

* Test plans document
* Test cases documents
* Test Design specifications

## During the testing

* Test Tool
* Simulators
* Test Data
* Test Trace-ability Matrix
* Error logs and execution logs

## After the testing cycles is over

* Test Results/reports
* Defect Report
* Installation/test procedures guidelines
* **Release Notes**