Swagger Petstore API Test Plan

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# Scope

The scope of this test plan is to document and outline the test cases that will be performed against a sample API server of a pet store hosted by Swagger.io. Reference of the API server is found in the link: [https://petstore.swagger.io/#/](https://petstore.swagger.io/" \l "/)

This document will contain Positive Test cases, which will cover the valid user inputs to the APIs. It will also contain the Negative Test cases, which are for the invalid user inputs. Each API endpoint will be tested and will contain both positive and negative tests grouped together in one table. The Pass/Fail of each test case were extracted from the actual test runs from the SwaggerPetstoreAPITests, the test project. Please refer to code In the test project for reference for more details.

The tools and technologies that will be used for testing are:

* Visual Studio 2022
* C#
* NUnit.

# **Test Cases**

## Pets API endpoints

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **API endpoint** | /pet | | | |
| **API Description** | CreatePet | | | |
| **Method Type** | CREATE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| Pet Objects: NewPets | | The pets are successfully added into the server. | The pets are successfully added into the server. | Pass |
| Pet Objects: InvalidPets | | An error is returned with code 405. | An OK response is returned with code 0. | Fail |
| Pet Objects: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /pet/{petId} | | | |
| **API Description** | GetPetByID | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| PetId: 1 | | A Pet object with ID: 1 is returned. | A Pet object with ID: 1 is returned. | Pass |
| PetId: 100 | | A Pet object with ID: 10 is returned. | A Pet object with ID: 10 is returned. | Pass |
| PetId: long.maxvalue / 9223372036854775807 | | A Pet object with ID: 9223372036854775807 is returned. | A Pet object with ID: 9223372036854775807 is returned. | Pass |
| PetId: 0 | | An error is returned with code 1. | An error is returned with code 1. | Pass |
| PetId: -5 | | An error is returned with code 1. | An error is returned with code 1. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /pet/findByStatus | | | |
| **API Description** | GetPetsByStatus | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| Status: “available” | | A list of pets with status “available” is returned. | A list of pets with status “available” is returned. | Pass |
| Status: “pending” | | A list of pets with status “pending” is returned. | A list of pets with status “pending” is returned. | Pass |
| Status: “sold” | | A list of pets with status “sold” is returned. | A list of pets with status “sold” is returned. | Pass |
| tatus: “-1” | | No pets with status “-1” are returned. | No pets with status “-1” are returned. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /pet/{petId} | | | |
| **API Description** | UpdatePetByID | | | |
| **Method Type** | PUT | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| PetId: 10  Name: “my pet”  Status: “sold” | | The pet with ID 10 should have updated the name to “my pet”, and status to “sold”. | The pet with ID 10 still had the name “doggie”, and status “string”. | Fail |
| PetId: 10  Name: “”  Status: “sold” | | The pet with ID 10 should have updated the status to “sold”. | The pet with ID 10 still had the name “doggie”, and status “string”. | Fail |
| PetId: 10  Name: null  Status: “sold” | | The pet with ID 10 should have updated the status to “sold”. | The pet with ID 10 still had the name “doggie”, and status “string”. | Fail |
| PetId: 10  Name: “my pet”  Status: “” | | The pet with ID 10 should have updated the name to “my pet”. | The pet with ID 10 still had the name “doggie”, and status “string”. | Fail |
| PetId: 10  Name: “my pet”  Status: null | | The pet with ID 10 should have updated the name to “my pet”. | The pet with ID 10 still had the name “doggie”, and status “string”. | Fail |
| PetId: 0  Name: “my pet”  Status: “sold” | | An error is returned with code 404. | An error is returned with code 404. | Pass |
| PetId: -10  Name: “my pet”  Status: “sold” | | An error is returned with code 404. | An error is returned with code 404. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **API endpoint** | /pet | | | |
| **API Description** | UpdatePetByID | | | |
| **Method Type** | PUT | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| Pet Objects: PetsToUpdate | | The pet is successfully updated in the server. | The pet is successfully updated in the server. | Pass |
| Pet Objects: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | pet/{petid}/uploadImage | | | |
| **API Description** | UploadPetImage | | | |
| **Method Type** | POST | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| PetId: 1  additionalMetadata: “test”  file: dog-cartoon.avif | | The pet image is successfully uploaded to the server. | The pet image is successfully uploaded to the server. | Pass |
| PetId: 1  additionalMetadata: “test”  file: none | | An error is returned with code 400. | An error is returned with code 400. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /pet/{petId} | | | |
| **API Description** | DeletePetByID | | | |
| **Method Type** | DELETE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| PetId: 1 | | The pet with ID 1 is deleted. | The pet with ID 1 is deleted. | Pass |
| PetId: 100 | | The pet with ID 100 is deleted. | The pet with ID 100 is deleted. | Pass |
| PetId: long.maxvalue / 9223372036854775807 | | The pet with ID 9223372036854775807 is deleted. | The pet with ID 9223372036854775807 is deleted. | Pass |
| PetId: 0 | | An error is returned with code 404. | Server returned 404, but no response object with error 404 was returned. | Fail |
| PetId: -5 | | An error is returned with code 404. | Server returned 404, but no response object with error 404 was returned. | Fail |

## **Store** API endpoints

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| **API endpoint** | /store/order | | | |
| **API Description** | CreateOrderForPet | | | |
| **Method Type** | CREATE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| Pet Objects: NewOrders | | The orders are successfully placed into the server. | The orders are successfully placed into the server, but the returned placed order had an incorrect petId set to 0. | Fail |
| Pet Objects: InvalidOrders | | An error is returned with code 1. | A response is returned with code 0. | Fail |
| Pet Objects: null | | An error is returned with code 1. | An error is returned with code 1. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /store/order/{orderId} | | | |
| **API Description** | GetOrderByID | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| OrderId: 1 | | The order with ID 1 is returned. | The order with ID 1 is returned. | Pass |
| OrderId: 5 | | The order with ID 5 is returned. | The order with ID 5 is returned. | Pass |
| OrderId: 10 | | The order with ID 10 is returned. | The order with ID 10 is returned. | Pass |
| OrderId: -10 | | An error is returned with code 1. | An error is returned with code 1. | Pass |
| OrderId: 0 | | An error is returned with code 1. | An error is returned with code 1. | Pass |
| OrderId: 11 | | An error is returned with code 1. | An error is returned with code 1. | Pass |
| OrderId: 20 | | An error is returned with code 1. | An error is returned with code 1. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /store/inventory | | | |
| **API Description** | GetStatusCodeQuantities | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| none | | Gets all order statuses available and the quantity for each. | Gets all order statuses available and the quantity for each. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /store/order/{orderId} | | | |
| **API Description** | DeleteOrderByID | | | |
| **Method Type** | DELETE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| OrderId: 1 | | The order with ID 1 is deleted from the server. | The order with ID 1 is deleted from the server. | Pass |
| OrderId: 5 | | The order with ID 5 is deleted from the server. | The order with ID 5 is deleted from the server. | Pass |
| OrderId: 10 | | The order with ID 10 is deleted from the server. | The order with ID 10 is deleted from the server. | Pass |
| OrderId: -10 | | An error is returned with code 404. | An error is returned with code 404. | Pass |
| OrderId: 0 | | An error is returned with code 404. | An error is returned with code 404. | Pass |
| OrderId: 11 | | An error is returned with code 404. | An error is returned with code 404. | Pass |
| OrderId: 20 | | An error is returned with code 404. | An error is returned with code 404. | Pass |

## **Users** API endpoints

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| --- | --- | --- | --- | --- |
| **API endpoint** | /user | | | |
| **API Description** | CreateUser | | | |
| **Method Type** | CREATE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| User Objects: NewUsers | | The user is created and a response with code 200 is returned. | The user is created and a response with code 200 is returned. | Pass |
| User Objects: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /user/createWithList | | | |
| **API Description** | CreateUsersWithList | | | |
| **Method Type** | CREATE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| User Objects: NewUsers | | The user is created and a response with code 200 is returned. | The user is created and a response with code 200 is returned. | Pass |
| User Objects: empty list | | An error is returned with code 405. | A response with code 200 is returned. | Fail |
| User Objects: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /user/createWithArray | | | |
| **API Description** | CreateUsersWithArray | | | |
| **Method Type** | CREATE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| User Objects: NewUsers | | The user is created and a response with code 200 is returned. | The user is created and a response with code 200 is returned. | Pass |
| User Objects: empty array | | An error is returned with code 405. | A response with code 200 is returned. | Fail |
| User Objects: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /user/{username} | | | |
| **API Description** | GetUserByUsername | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| username: “user100” | | The user with username “user100” is returned. | The user with username “user100” is returned. | Pass |
| username: “-1” | | An error is returned with code 1. | An error is returned with code 1. | Pass |
| username: “” | | An error is returned with code 405. | An error is returned with code 405. | Pass |
| username: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /user/login | | | |
| **API Description** | Login | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| username: “user100”  password: “password” | | The user is successfully logged in. | The user is successfully logged in. | Pass |
| username: “user100”  password: “” | | An error is returned with code 405. | A response is returned with code 200. | Fail |
| username: “”  password: “password” | | An error is returned with code 405. | A response is returned with code 200. | Fail |
| username: “”  password: “” | | An error is returned with code 405. | A response is returned with code 200. | Fail |
| username: null  password: null | | An error is returned with code 405. | A response is returned with code 200. | Fail |

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| **API endpoint** | /user/logout | | | |
| **API Description** | Logout | | | |
| **Method Type** | GET | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| username: “user100”  password: “password” | | The user is successfully logged out. | The user is successfully logged out. | Pass |

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| --- | --- | --- | --- | --- |
| **API endpoint** | /user | | | |
| **API Description** | UpdateUser | | | |
| **Method Type** | PUT | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| Username: UsersToUpdate.username  User Object: UsersToUpdate | | The user details are updated into the server. | The user details are updated into the server. | Pass |
| Username: “”  User Object: UsersToUpdate | | An error is returned with code 405. | An error is returned with code 405. | Pass |
| Username: null  User Object: UsersToUpdate | | An error is returned with code 405. | An error is returned with code 405. | Pass |
| Username: “user100”  User Object: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |
| Username: null  User Object: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **API endpoint** | /user | | | |
| **API Description** | DeleteUser | | | |
| **Method Type** | DELETE | | | |
| **Input** | | **Expected Output** | **Actual Output** | **Pass / Fail** |
| Username: “user100” | | The user is deleted from the server. | The user is deleted from the server. | Pass |
| Username: “” | | An error is returned with code 405. | An error is returned with code 405. | Pass |
| Username: null | | An error is returned with code 405. | An error is returned with code 405. | Pass |

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