

# Test Plan – Petstore API

## 1. Overview

**Objective:** Ensure the Petstore API functions correctly for CRUD operations, user management, and store endpoints.

**Scope:** Manual and automated testing of endpoints, including positive, negative, and edge cases.

**Tested Environments:**

- Prod: <https://petstore.swagger.io/v2>
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## 2. Features to be Tested

Feature	Endpoints	Description
Pets CRUD	<a href="#">/pet</a>	Create, Read, Update, Delete pets
Pet status	<a href="#">/pet/findByStatus</a>	Get pets by status ( <a href="#">available</a> , <a href="#">pending</a> , <a href="#">sold</a> )
Users CRUD	<a href="#">/user</a>	Register, login, update, delete users
Store operations	<a href="#">/store/order</a>	Place, get, and delete orders
Inventory	<a href="#">/store/inventory</a>	Check stock status by status

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## 3. Types of Testing

- **Functional Testing:** Verify endpoints return correct data and status codes;
  - **Positive & Negative Testing:** Test valid requests and handle invalid inputs;
  - **Regression Testing:** Ensure updates do not break existing functionality;
  - **Boundary Testing:** Test numeric IDs, string lengths, and special characters;
  - **Integration Testing:** Check API behavior with multiple endpoints (e.g., creating a pet then fetching it);
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## 4. Test Design

### Test Data:

- Pets: Random IDs, names, categories (Dogs, Cats, Birds);
- Users: Random usernames, emails;
- Orders: Random order IDs and quantities.

### Test Cases Examples:

1. Create a pet (POST /pet);
  2. Get a pet by ID (GET /pet/{id});
  3. Update a pet (PUT /pet);
  4. Delete a pet (DELETE /pet/{id});
  5. Find pets by status (GET /pet/findByStatus);
  6. Invalid pet ID request → expect 404;
  7. Place an order (POST /store/order);
  8. Get inventory (GET /store/inventory).
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## 5. Test Execution

- **Manual Testing:** Using Postman collections;
  - **Automation (optional):** Run RestAssured scripts;
  - **Data Validation:** Verify JSON response fields match request data;
  - **Response Codes:** 200 for success, 400/404 for invalid requests.
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## 6. Test Documentation

- Test Cases stored in test-cases/ folder;
  - Postman collections stored in postman/ folder;
  - Sample bug reports in bug-reports/ folder.
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## 7. Risks & Assumptions

- API may change frequently (versioning);
  - Some endpoints may have rate limits;
  - Network issues may affect response time.
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## 8. Deliverables

- Test Plan (this document);
- Test Cases;
- Bug Reports;
- Postman Collections;
- Automation scripts (optional).