

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	/pet	Create, Read, Update, Delete pets
Pet status	/pet/findByStatus	Get pets by status (available , pending , sold)
Users CRUD	/user	Register, login, update, delete users
Store operations	/store/order	Place, get, and delete orders
Inventory	/store/inventory	Check stock status by status

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).