# Project Review: Petstore API Testing

## Project Scope & Goals

The project aims to test the core functionalities of the Petstore API, ensuring its reliability, security, and correctness within a one-week timeframe. Due to the limited time, testing will focus on essential API operations related to pet management, store orders, and user authentication.

## 1️⃣ Key Testing Areas

Given the time constraints, the testing strategy will prioritize core functionalities while minimizing non-essential testing. Below are the primary areas of focus:

### 🔹 Pet Management (CRUD Operations)

* ✅ Adding a new pet (POST /pet)
* ✅ Updating a pet (PUT /pet)
* ✅ Finding pets by status (GET /pet/findByStatus)
* ✅ Retrieving pet details (GET /pet/{petId})
* ✅ Deleting a pet (DELETE /pet/{petId})
* ✅ Uploading an image for a pet (POST /pet/{petId}/uploadImage)

### 🔹 Store Orders (E-commerce Flow)

* ✅ Placing an order (POST /store/order)
* ✅ Retrieving order details (GET /store/order/{orderId})
* ✅ Deleting an order (DELETE /store/order/{orderId})
* ✅ Fetching inventory status (GET /store/inventory)

### 🔹 User Authentication & Management

* ✅ User creation (POST /user)
* ✅ Retrieving user data (GET /user/{username})
* ✅ Updating user details (PUT /user/{username})
* ✅ Deleting a user (DELETE /user/{username})
* ✅ User login/logout flow (GET /user/login, GET /user/logout)

## 2️⃣ Testing Strategy

### 📌 API Testing Approach

* ✅ Functional Testing: Ensure each API endpoint behaves as expected (e.g., correct responses, status codes).
* ✅ Negative Testing: Test invalid inputs and error responses.
* ✅ Security Testing: Verify authentication and access control for user-related endpoints.
* ✅ Performance Testing: Basic response time checks to ensure API responsiveness.

### 📌 Testing Tools

* ✅ Postman – For manual testing of endpoints.
* ✅ Newman (Optional) – To automate API test execution using Postman collections.

## 3️⃣ Project Timeline (1 Week Plan)

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| Day | Task |
| Day 1 | Understanding API, setting up Postman collections |
| Day 2 | Testing Pet Management endpoints |
| Day 3 | Testing Store Orders endpoints |
| Day 4 | Testing User Management endpoints |
| Day 5 | Conducting negative testing & security tests |
| Day 6 | Review results & document findings |
| Day 7 | Final review, fixing issues, and preparing the test report |

## 4️⃣ Deliverables

* ✅ Postman Collection with all test cases
* ✅ Bug Report listing any found issues
* ✅ API Test Report summarizing findings
* ✅ Improvement Suggestions based on test results

## 5️⃣ Team Responsibilities Recap

* ✅ Each member → Tests their assigned endpoints and logs issues.
* ✅ You (Team Leader) → Oversees testing, reviews test cases, and compiles the final report.