

# Software Test Design

## Pokémon

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## 1. Introduction

### a. Document overview

The Software Test Plan (STP) presented here delineates the testing strategies, goals, and methodologies for Quality Assurance (QA) automation testing of the Pokémon API. The Pokémon API serves as a vital platform for retrieving information about Pokémon species, abilities, moves, and other related data for developers and enthusiasts alike.

### b. Project overview

The Pokémon API plays a crucial role in providing accurate and up-to-date information about Pokémon, enabling developers to integrate this data into their applications seamlessly. This STP aims to ensure the effective functioning of the Pokémon API, guaranteeing a reliable experience for users. It outlines the testing scope, defines objectives, and establishes the testing approach to be adhered to throughout the QA automation testing process.

### c. project references

The purpose of this STP is to:

Define the scope and objectives of QA automation testing for the Pokémon API.

Identify the roles and responsibilities of the testing team involved in API testing.

Outline the testing approach and methodologies, focusing on API testing practices.

Specify the test environment, encompassing hardware, software, and network configurations relevant to API testing.

Detail the test deliverables, including API test cases, test scripts, and defect reports.

Establish a timeline for testing activities, ensuring a systematic and efficient testing process.

Define metrics for measuring the effectiveness and success of the Pokémon API testing process.

## 2. Tests basic preparations

### a. Hardware basic preparation

- i. **System Requirements Check:** Ensure your testing environment meets the system requirements specified for Pokémon API testing. Verify that your hardware components, such as CPU, RAM, and disk space, comply with the minimum requirements.
- ii. **Network Connectivity:** Confirm the stability of your internet connection, as Pokémon API testing involves making requests to an online service. Network stability is crucial for testing functionalities like data retrieval.
- iii. **Data Setup:** Understand the data requirements for Pokémon API testing, and ensure you have the necessary test data available or create sample data representing different scenarios, including Pokémon species, abilities, and moves.

### b. Software basic preparation

- i. **API Testing Tools:** Install suitable API testing tools like Postman or Insomnia to facilitate efficient testing of Pokémon API endpoints.
- ii. **Documentation Tools:** Utilize documentation tools (e.g., Swagger, Postman documentation) to document API endpoints, payloads, and expected responses.
- iii. **Version Control System:** Use a version control system like Git to manage changes to your testing scripts and ensure version control during Pokémon API testing.
- iv. **Data Preparation**

### c. Data preparation

- i. **Gain a clear understanding of the data requirements** for testing the Pokémon API, including information about Pokémon species, abilities, moves, and other relevant data.
- ii. **Identify Test Scenarios:** Based on the testing scope, identify test scenarios that require specific data.
- iii. **Prepare Authentication Tokens:** If the Pokémon API requires authentication, obtain or generate valid authentication tokens to test secured endpoints.

### 3. Test case steps

#### a. Test Case Title: Retrieve Information for a Random Pokémon Card

##### i. Preconditions:

- Ensure that the Pokémon API is accessible and operational.
- Verify that the testing environment meets the necessary hardware and software requirements.
- Confirm that the API supports the retrieval of information for Pokémon cards.

##### ii. Steps:

1. Access the Pokémon API Endpoint for Random Card.
2. Verify HTTP Response.
3. Parse and Extract Data.
4. Validate Card Attributes.
5. Confirm Image Availability.

Expected Result: The Pokémon API successfully retrieves accurate information for a randomly selected Pokémon card, and open an url for the image card

### 4. Requirements Traceability

ID	Main Requirements	Sub Requirements	Description	Ass. ID	Test Case	Purpose
1	Random Pokémon Card	Open url image	Open a random card in chrome	TC_SI01	Retrieve Information for a Random Pokémon Card	successfully information for a randomly selected Pokémon card, the image URL is valid, and opens correctly.