**Test Plan for API Testing**

**1. Test Plan Identifier**

* **Test Plan ID**: TP-API-001
* **Version**: 1.0
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* **Date**: 20/01/2025

**2. Introduction**

This document outlines the test plan for the API endpoint ‘https://testapi.io/api/rmstest/media’. The purpose of this test plan is to validate the functionality, response time, and accuracy of the data returned from the API.

The test will focus on verifying the expected behaviour of the API under normal operating conditions, ensuring that the following API features meet the specified requirements:

* Correct HTTP status code.
* Response time.
* Data Accuracy for key fields.

**3. Scope**

**In Scope**

The scope of this test plan includes testing the following functionality of the https://testapi.io/api/rmstest/media endpoint:

* HTTP status code.
* Response time.
* Field validations (non-null/empty checks).
* Value consistency (e.g., verifying specific field values like segment\_type and now\_playing).
* Validity of the Date header.

**Out of Scope**:

* Load testing.
* Security testing.
* Integration with external systems.

**4. Test Strategy**

We will perform manual API testing by making GET requests to the endpoint and checking the API's responses based on the following:

* **HTTP Status Code**: Verify that the status code is 200 OK.
* **Response Time**: Ensure the time it takes to get a response is within 1000ms.
* **Field Validations**: Check that fields such as id, primary, and segment\_type are correctly populated.
* **Business Logic Validation**: Ensure that only one track has the now\_playing field set to true.

**5. Test Approach**

* **Tools**: Postman.
* **Data**: Test data will be based on the API response, which includes music tracks.
* **Testing Types**:
  + **Functional Testing**: Verify that all fields in the API response contain valid values and that the API follows the business rules.
  + **Performance Testing**: Measure the response time to ensure it’s under 1000ms.
  + **Boundary Testing**: Ensure the values of certain fields (such as id, primary, segment\_type) are neither null nor empty.

**6. Test Deliverables**

* Test Plan document.
* Test Case document (detailing each test case in Gherkin format).
* Test Results report (detailing whether the test cases passed or failed).
* Any supporting documentation or evidence.

**7. Test Schedule**

The testing is expected to take **1-2 days** for completion, depending on the number of tests and the environment.

* **Test Case Writing**: [19/01/2025] – [20/01/2025]
* **Test Execution**: [19/01/2025] – [20/01/2025]
* **Test Reporting**: [20/01/2025]

**8. Test Environment**

* **API Endpoint**: https://testapi.io/api/rmstest/media
* **Tools**: Postman.
* **Test Data**: 14 music tracks returned by the API.
* **System Configuration**: No special configuration required, but an internet connection is necessary to reach the API endpoint.

**9. Test Cases**

Here are three test cases written in **Gherkin format**, which you can refer to for manual testing.

**Test Case 1: Verify HTTP Status and Response Time**

**Feature**: Verify API Response

**Scenario**: Verify the HTTP status code and response time

**Given** The API endpoint https://testapi.io/api/rmstest/media is available.

**When** I make a GET request to "https://testapi.io/api/rmstest/media"

**Then** I should receive an HTTP status code of 200

**And** the response time should be less than 1000ms

**Steps for validation**:

1. Use Postman to send a GET request to https://testapi.io/api/rmstest/media.
2. Validate that the HTTP status code is 200 OK.
3. Measure the response time and ensure it is under 1000ms.

**Test Case 2: Validate "id" and "segment\_type" Fields**

**Feature**: Validate id and segment\_type Fields

**Scenario**: Validate that "id" is never null or empty and "segment\_type" is always "music"

**Given** The API endpoint https://testapi.io/api/rmstest/media is available.

**When** I make a GET request to "https://testapi.io/api/rmstest/media"

**Then** I should check each track's "id" field is not null or empty

**And** the "segment\_type" field of each track should always be "music"

**Steps for validation**:

1. Use Postman to send a GET request to https://testapi.io/api/rmstest/media.
2. For each track in the response:
   * Verify that the id field is neither null nor empty.
   * Verify that the segment\_type is always "music".

**Test Case 3: Validate "primary" Field in title\_list**

**Feature**: Validate title\_list's primary Field

**Scenario**: Validate that the "primary" field in title\_list is never null or empty

**Given** The API endpoint https://testapi.io/api/rmstest/media is available.

**When** I make a GET request to "https://testapi.io/api/rmstest/media"

**Then** I should check that each track's "primary" field in title\_list is not null or empty

**Steps for validation**:

1. Use Postman to send a GET request to https://testapi.io/api/rmstest/media.
2. For each track, ensure that the primary field within title\_list is not null or empty.