**📑 Test Plan – JSONPlaceholder Manual API Testing**

**1. Introduction**

The purpose of this test plan is to define the strategy, scope, objectives, resources, and schedule of the manual API testing effort for the JSONPlaceholder public API. This project ensures that the API endpoints work as expected and handle both valid and invalid inputs.

**2. Scope**

**In-Scope:**

* Testing of core endpoints:
  + **/posts** (GET, POST, PUT, PATCH, DELETE)
  + **/users** (GET)
  + **/todos** (GET)
* Positive and negative test cases.
* Validation of response status codes, payload schema, and error handling.

**Out-of-Scope:**

* Performance testing.
* Security testing.
* Load testing.

**3. Objectives**

* Verify that the API endpoints return correct data for valid requests.
* Ensure the API rejects invalid or malformed requests.
* Identify defects where API behavior differs from expected outcomes.

**4. Test Strategy**

* **Test Levels:** Functional testing only.
* **Test Types:** Positive, negative, boundary value, and error handling.
* **Test Approach:** Manual testing using **Postman** with validation scripts.
* **Entry Criteria:** Test environment setup with JSONPlaceholder base URL configured.
* **Exit Criteria:** All planned test cases executed with results logged; critical bugs reported.

**5. Test Environment**

* **Base URL:** https://jsonplaceholder.typicode.com/
* **Tools:** Postman for API testing, Excel for RTM and Bug Reporting.
* **Test Data:** Dummy user IDs, posts, todos from JSONPlaceholder API.

**6. Test Deliverables**

* Test Plan (this document)
* Postman Environment JSON
* Postman Collection JSON (with validation scripts)
* Test Cases (Excel)
* Bug Report (Excel)
* RTM (Excel)
* README file

**7. Test Cases**

* **Total:** 25 (Positive: 12, Negative: 13)
* Coverage includes GET, POST, PUT, PATCH, DELETE for posts, and GET for users & todos.

**8. Defect Management**

* Bugs will be logged in **BugReport.xlsx** with unique IDs, description, expected vs actual results, and status.
* Status lifecycle: Open → In Progress → Fixed → Retest → Closed.

**9. Roles and Responsibilities**

* **Tester:** Responsible for executing test cases and logging defects.
* **Reviewer:** Reviews test cases, test results, and defect reports.

**10. Risks and Mitigation**

* **Risk:** API is fake and does not persist changes → Some negative cases may pass incorrectly.
* **Mitigation:** Document behavior in bug reports and mark as known limitations.

**11. Schedule**

* **Day 1:** Test plan, environment setup.
* **Day 2–3:** Test case design and execution.
* **Day 4:** Defect logging and retesting.
* **Day 5:** Test closure report.

**12. Test Closure**

* Ensure all test cases executed.
* All defects logged and documented.
* RTM confirms full coverage of requirements.