**Test Plan for RESTful-Booker API**

**Test Environments**

**Testing Tool:** Postman

**Environment:**

* Development: Local environment for initial testing and development.
* Staging: A hosted environment for integration and acceptance testing.
* Production: Live environment for final validation.

**Test Strategy**

* Test Approach: Black-box testing with a focus on functional testing.
* Testing Types:
* API Testing: Testing the RESTful-Booker API endpoints including GET, POST, PUT, DELETE, and PATCH functions.
* Security Testing: Verify authentication mechanisms and access controls.
* Load Testing: Assess API performance under varying load conditions.
* Test Techniques: Equivalence partitioning, Boundary value analysis, Error guessing.
* Test Coverage:
* Positive and negative scenarios for each endpoint.
* Handling of invalid inputs and edge cases.
* Authentication and authorization checks.

**Test Schedule**

* Test Planning: Week 1
* Test Development: Week 2-3
* Test Execution: Week 4-5
* Test Reporting: Week 6

**Test Deliverables**

* Test Plan Document: Outlining the test approach, strategy, and schedule.
* Test Cases: Detailed test cases for each endpoint covering various scenarios.
* Test Results: Report containing test execution results, including pass/fail status and any defects found.
* Performance Report: Summary of load testing results and performance metrics.
* Security Report: Assessment of authentication mechanisms and access controls.

**Test Closure**

**Criteria for Closure**:

* All test cases were executed and documented.
* Defects resolved and retested.
* Acceptance criteria were met for each endpoint.

**Closure Activities:**

* Final review meeting to discuss test results and any outstanding issues.
* Preparation of final test reports and documentation.
* Handover of test artifacts to relevant stakeholders.

**Lessons Learned:**

* Identify areas for improvement in testing processes and tools.
* Document lessons learned for future projects.