# **Software Test Report (STR)**

**Project Name:** Sparkskool  
 **Version:** 3  
 **Test Lead:** Hamdalla Shawahny  
 **Test Execution Period:** Aug 31, 2025 – sep 11, 2025  
 **Test Environment:** Windows 10, Brave Browser.  
 **Test Tools Used:** JIRA, TestRail, Postman, JMeter, PyCharm

## **1. Introduction**

## This report formally documents the testing activities and outcomes for the Sparkskool Website. It encompasses test execution results from functional and performance test cycles, a detailed analysis of defect trends and severity, and a final assessment of the application's readiness for production deployment.

## **2. Test Execution Summary:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tests** | **Total tests** | **Passed** | **Failed** | **Pass Rate** |
| **Functional Tests** | 22 | 18 | 4 | 81.8% |
| **Performance** | 4 | 4 | 0 | 100% |
| **API** | 6 | 5 | 1 | 83.3% |
| **Automation** | 2 | 2 | 0 | 100% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Total** | 33 | 29 | 5 | 84.8% |

* **Overall Status:** The testing was largely successful, with a total pass rate of **84.8%**
* **Areas of Strength:** Performance and Automation testing achieved a **100% pass rate**
* **Area for Attention:** **Functional Testing** has the most failures (4)

## **3. Defect Analysis** **Summary:**

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Metric | Value | Notes |
| **Overall Metrics** | Total Defects Reported | 5 |  |
|  | Defects Fixed | 0 | **Critical Concern:** No defects have been resolved |
|  | Defects Pending | 5 | 100% of reported defects are currently unresolved. |
|  | Defect Density | 0.2 KLOC | Indicates a low to moderate number of defects relative to the codebase size |

|  |  |  |  |
| --- | --- | --- | --- |
| **Severity Distribution** | Critical | **1** (20%) | **Release Blocker.** Causes system crash, data loss, or blocks core functionality. |
|  | High | **2**  (40%) | Major feature is impaired or broken. |
|  | Medium | **2** (40%) | Minor flaw or UI issue with an available workaround |
|  | Low | 0 | Cosmetic issues only |

* All 5 reported bugs are still pending.
* The severity of these defects is serious. A majority (60%) are **Critical or High** severity
* The Defect Density is low.

## **5. Performance Testing Summary:**

| **Metric** | **Tool** | **Value** | **Analysis** |
| --- | --- | --- | --- |
| **Peak Response Time** | Postman | 2.0 sec | The maximum response time for a single request under no load. |
|  | JMeter | 1.6 sec | The maximum response time observed during load testing is better, indicating good stability under pressure. |
| **Average Response Time** | Postman | 1.5 sec | The typical response time for a single request. |
|  | JMeter | 0.27 sec | Excellent. The average response time under load is significantly lower, suggesting efficient handling of concurrent requests. |
| **Error Rate** | Postman | 0% | No errors in single requests. |
|  | JMeter | 0% | Excellent. The system maintained 100% reliability under load with no failed transactions. |
| **Throughput** | Postman | 230 req/sec | A baseline measure of requests per second for a single client. |
|  | JMeter | 217 req/sec | The application consistently handled ~217 requests per second under load, demonstrating strong capacity. |

* Excellent Performance Under Load
* The system maintained a 0% Error Rate and high Throughput (~217 requests/second) even under stress
* The excellent JMeter metrics suggest the application is well-designed

## **6. Test Execution Timeline & Schedule Adherence** **Summary:**

|  |  |  |
| --- | --- | --- |
| ***Planned Completion*** | ***Actual Completion*** | ***Schedule Variance*** |
| Sep 11, 2025 | Sep 8, 2025 | 0 days |

* Testing **completed 3 days before planned date**.
* No major delays were encountered.