**Project: SparkSkool QA Test (Teacher Role)**

URL: <https://app.sparkskool.com/auth/login>

Version: 1.1

**1. Introduction**

Purpose:

The purpose of this Test Plan is to outline the strategy, scope, objectives, resources, and schedule for testing the Teacher role functionalities of the SparkSkool application.

* Verify that all functional requirements for Teacher role (as per FRD) are implemented correctly.
* Validate non-functional requirements including performance, security, and usability.
* Identify and log defects, ensuring they are tracked and resolved.
* Provide confidence that the Teacher role is stable for production use.

Scope:

In Scope

* Teacher authentication (login/logout/reset password).
* Teacher Dashboard features.
* Lesson creation, editing, deletion.
* Exam creation, publishing, and management.
* AI-assisted lesson suggestions and grading.
* Report generation.

Out of Scope

* Student role features.
* Admin role features.
* Mobile app testing.

References:

- <https://app.sparkskool.com/auth/login>

- [SparkSkool FRD](https://github.com/sleepyash01/Project3QA/blob/main/Project%203%20FRD%20-%20SparkSkool.docx)

**2. Test Items**

The following modules/features of SparkSkool (Teacher role) will be tested:

* Authentication (Login/Logout/Password Reset)
* Teacher Dashboard Navigation and Data Display
* Lesson Management (Create, Edit, Delete, AI Assist)
* Exam Management (Create, Publish, Delete)
* AI Assistance (Lesson Suggestions, Grading)
* Report Generation (Creation, Filtering, Export)
* Non-Functional Testing (Performance, Security, Usability, Cross-browser)

**3. Testing Stratgy**

3.1 Test Levels

- Unit Testing

- Integration Testing

- System Testing

- Acceptance Testing

3.2 Test Types

- Functional Testing

- UI Testing

- Performance Testing

- Security Testing

3.3 Test Design Techniques

- Boundary Value Analysis

- Equivalence Partitioning

- Use Case Testing

**4. Test Environment**

Hardware:

Tested on a machine with 8GB RAM, Intel i5 processor, and 256GB SSD.

Software:

Windows 11 Home, Chrome, Postman, JMeter, Jira, PyCharm

Test Data:

Registered user (teacher) accounts with varying lesson and exam data.

Environment: [SparkSkool Web Application](https://app.sparkskool.com/auth/login)

**5. Roles and Responsibilities**

| **Name** | **Role** | **Responsibilities** |
| --- | --- | --- |
| Hamdallah | Test Lead | Planning, coordination, final QA approval |
| Huthayfa | QA Engineer | Manual testing, bug reporting, Postman |
| Waed | QA Engineer | JMeter scripting, UI review, reporting |

**6. Schedule**

| **Activity** | **Start Date** | **End Date** |
| --- | --- | --- |
| Test case preparation | 03/09/2025 | 05/09/2025 |
| Manual functional testing | 05/08/2025 | 08/09/2025 |
| Postman + JMeter testing | 05/09/2025 | 10/09/2025 |
| PyCharm testing | 05/09/2025 | 06/09/2025 |
| Final QA review | 10/09/2025 | 11/09/2025 |

**7. Deliverables**

- Functional Requirements Document (FRD)

- Test Plan (this STP)

- Test Cases (Excel or TestRail)

- Postman API collection (JSON)

- JMeter test reports

- PyCharm automated test reports

- Bug reports (Jira or Excel)

- Final QA summary report

**8. Entry & Exit Criteria**

Entry Criteria

- FRD is approved.

- Test environment is set up and accessible.

- Teacher test accounts are created.

Exit Criteria

- All planned test cases are executed.

- All critical/high severity defects are resolved or deferred with approval.

- 95% test case pass rate

- Summary report submitted.

**9. Risks and Mitigation**

| **Risk** | **Mitigation** |
| --- | --- |
| Requirement changes | Maintain regular communication with the product team |
| Limited time for performance tests | Prioritize core flows in JMeter |
| Unstable test environment | Coordinate with DevOps for support |