Test Execution Schedule
School Management System

12/23/2025

Version 1

Document Change History

Version	Date	Change	Role
1	Jan 2025	First Version	Process Engineer

Artifact Amendment History

Version	Date	Change	Approval
1	Dec 2025	First Version	Tester

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TEST EXECUTION SCHEDULE

This document presents the **test execution schedule** for the School Management System and demonstrates how test execution order was **revised using test case prioritization techniques**.

Initially, the test suites were scheduled in a **functional sequence**. To optimize execution under time and resource constraints, **coverage-based test case prioritization** was applied. In this approach, test suites containing test cases with **higher code coverage percentages** were prioritized earlier, as they provide greater verification of system functionality.

However, while applying coverage-based prioritization, **functional dependencies between modules were also considered**. Certain modules, such as **Student Authentication**, act as **prerequisites** for accessing other parts of the system. Therefore, even if other test suites achieved higher coverage, dependency constraints required authentication to be executed first.

As a result, the final execution order was determined using a **combined approach**:

- **Dependency-based prioritization** to ensure prerequisite modules are executed first

- **Coverage-based prioritization** to maximize verification effectiveness

The final test execution schedule reflects a **real-world QA decision-making process**, where both **technical coverage** and **system dependencies** influence execution order.

1.1   TEST EXECUTION SCHEDULE FOR STUDENT MODULE

Sequence	Test Suite	Scheduled Date
1	TS-Auth-01	01-Jan-2026
2	TS-Registration-01	02-Jan-2026
3	TS-Attendance-01	03-Jan-2026
4	TS-FeePayment-01	04-Jan-2026

1.2   PRIORITIZED TEST EXECUTION SCHEDULE (COVERAGE)

Sequence	Test Suite	Reason (Coverage-based)	Scheduled Date
1	TS-Registration-01	Highest coverage suite (3 test cases at 16.67%); creates student data	01-Jan-2026
2	TS-FeePayment-01	Highest coverage suite (3 test cases at 16.67%); critical transaction flow	02-Jan-2026
3	TS-Auth-01	Contains 1 high-coverage test case (TC-002 = 16.67%)	03-Jan-2026
4	TS-Attendance-01	Only 8.33% cases; lower coverage impact than others	04-Jan-2026

1.3   PRIORITIZED TEST EXECUTION SCHEDULE (DEPENDENCY + COVERAGE)

Sequence	Test Suite	Dependency / Coverage Reason	Scheduled Date
1	**TS-Auth-01**	**Precondition for all modules (system access/login required)**	01-Jan-2026
2	**TS-Registration-01**	**Depends on Auth; creates student records needed by Attendance & Fee Payment**	02-Jan-2026
3	**TS-FeePayment-01**	Depends on Auth + student data; high coverage suite (3 cases at 16.67%)	03-Jan-2026
4	**TS-Attendance-01**	Depends on Auth + student data; lower coverage impact (all 8.33%)	04-Jan-2026