



Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Students Kit

Objective

The objective of this Web-Based School Administration System is to streamline school operations by automating various administrative tasks. This system helps manage student records, attendance tracking, grade management, teacher schedules, and communication between parents, teachers, and administrators. The goal is to provide an efficient, user-friendly, and secure platform that enhances overall school management.

Requirements Specification (RS)

The **Requirements Specification (RS)** document defines the essential functional and non-functional requirements for the system. These requirements help guide the development process and ensure the system meets the needs of the school administration.

No.	Requirement	Essential/Desirable	Description of the Requirement	Remarks
RS1	The system should have a login module	Essential	Secure login for students, teachers, and admins.	
RS2	The system should have role-based access	Essential	Role-based dashboards and permissions.	
RS3	The system should have an attendance tracking module	Essential	Attendance marking and viewing.	
RS4	The system should have grade and report card management	Essential	Grade entry and report card viewing.	
RS5	The system should allow student registration	Essential	Admins register students, students update profile.	Should allow future updates



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RS6	The system should support timetable and class scheduling	Desirable	Set and view class schedules.	
RS7	The system should be responsive on all devices	Essential	Works on desktops, tablets, and phones.	
RS8	The system should include notifications and alerts	Desirable	Automated alerts for events.	
RS9	The system should allow messaging	Essential	Internal messaging between users.	

Database Fields Specification

User Table:

No.	Field Name	Range of valid values for the field	Remarks
1	User_id	1 to 10000	Primary field
2	Username	Up to 15 characters	Special characters are not allowed.
3	Email_id	Up to 30 characters	Must follow valid email format
4	Password	Up to 15 characters	Special characters like underscore are allowed.
5	Full Name	Alphabets	Full name of the user
6	Phone Number	Up to 10 integers	Unique phone number
7	Role	'student', 'teacher', 'admin'	Defines access level and interface



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Attendance Table:

No.	Field Name	Range of Valid Values	Remarks
1	Attendance_id	1 to 10000	Primary key
2	Student_id	1 to 10000	Foreign key to users
3	Date	Date	Attendance date
4	Status	'Present' or 'Absent'	Attendance mark

Order table:

No.	Field Name	Range of Valid Values	Remarks
1	Grade_id	1 to 10000	Primary key
2	Student_id	1 to 10000	Foreign key to users
3	Subject	Up to 30 characters	Subject name
4	Marks	0 to 100	Marks obtained
5	Grade	A to F	Calculated based on marks

Admin Logs Table

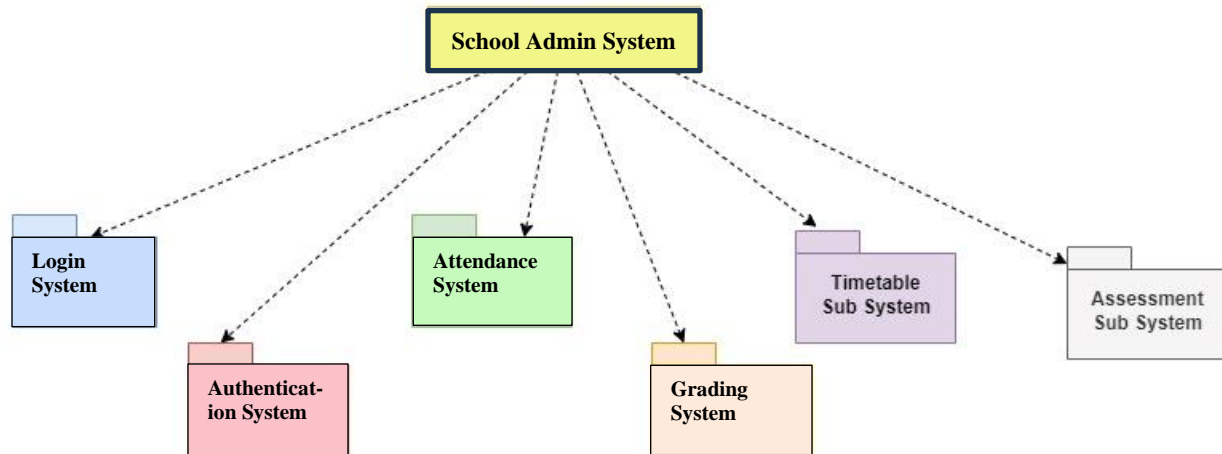
No.	Field Name	Range of valid values for the field	Remarks
1	Login id	1 to 10000	Primary field
2	Admin_id	1 to 10000	Foreign Key to Users with admin role
3	Action	1 to 1000	User suspension, listing removal



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High Level/Detailed Design (HLD/DD)

Overview of the system



Design Components

The system is based on various screens based on the role of the user in organization

Student:

- Registration and Login
- Dashboard
- View Attendance
- View Grades and Report Cards
- Messaging with Teachers/Admin
- Profile Management

Teacher:

- Login
- Dashboard
- Mark Attendance
- Enter Grades
- View Class Schedule
- Messaging with Students/Parents



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Admin:

- Admin Login
- Dashboard
- Register Students/Teachers
- Set Class Timetables
- Access to all student records
- System Logs and Management

Test-Plan (TP)

The test plan (TP) for the grains trading website encompasses a comprehensive strategy to ensure the platform's functionality, performance, and security. It involves multiple stages of testing, including unit testing, integration testing, and user acceptance testing. The plan outlines specific test cases, criteria for success, and responsible teams or individuals for each phase. Performance testing assesses system scalability and responsiveness under varying loads. Usability and accessibility testing focus on delivering an intuitive user experience for both buyers and sellers.

No.	Test Case Title	Description	Expected Outcome	RS Ref	Result
1	Successful User Registration	Register with valid details	Successful registration	RS1	Passed
2	Login with valid credentials	Login using valid username and password	Redirect to dashboard	RS1	Passed
3	Login with invalid credentials	Attempt login with wrong password	Error message shown	RS1	Passed
4	Role-based Dashboard View	Login as admin, teacher, student	Role-specific dashboard loads	RS2	Passed
5	Attendance Entry by Teacher	Teacher marks attendance for a class	Attendance saved and viewable	RS3	Passed
6	View Attendance as Student	Student views their attendance records	Accurate data displayed	RS3	Passed
7	Grade Entry and Report Card View	Teacher enters grades and generates report card	Grades recorded and visible to students	RS4	Passed
8	Notifications Sent	Grade/attendance updates generate notifications	Notifications delivered	RS8	Passed
9	Messaging Between Users	Message sent between parent and teacher	Message appears in both accounts	RS9	Passed



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10	Responsive Design Check	Open website on various devices	Layout adapts and functions properly	RS7	Passed
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