

**Software Engineering**  
**Test Document**  
**Laboratory Management System**



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# Laboratory Management System

## Testing Document

### Unit Level Testing

#### Username Field V1.0

Validation Criteria	Sample Input	Expected Output	Pass/Fail
Must contain only alphabetic chars.	AdminUser	Username Accepted.	Pass
Must contain only alphabetic chars.	Admin123	Error: Invalid Username.	Pass
Must contain only alphabetic chars.	@dm!n	Error: Invalid Username.	Pass

#### Password Field V1.0

Validation Criteria	Sample Input	Expected Output	Pass/Fail
Minimum 8 chars, includes special chars and digits.	Pass@1234	Password Accepted.	Pass
Minimum 8 chars, includes special chars and digits.	Pass123	Error: Weak Password.	Pass
Minimum 8 chars, includes special chars and digits.	12345678	Error: Weak Password.	Pass

#### Patient DOB Field V1.0

Validation Criteria	Sample Input	Expected Output	Pass/Fail
Format: DD/MM/YYYY	15/05/1990	Date Accepted.	Pass
Format: DD/MM/YYYY	1990-05-15	Error: Invalid Format.	Pass
Format: DD/MM/YYYY	32/01/2000	Error: Invalid Date.	Pass

**Login Button V1.0**

Action Performed	Expected Output	Pass/Fail
Clicked with valid inputs.	Redirected to Admin/Laboratorian Home Page.	Pass
Clicked with invalid inputs.	Error: Incorrect Credentials.	Pass
Clicked without inputs.	Error: Fields Required.	Pass

**Save Button V1.0**

Action Performed	Expected Output	Pass/Fail
Clicked with valid inputs.	Data saved successfully.	Pass
Clicked with invalid inputs.	Error: Validation Failed.	Pass
Clicked without inputs.	Error: Fields Required.	Pass

**Generate Report Button V1.0**

Action Performed	Expected Output	Pass/Fail
Clicked after selecting dates.	Report generated and displayed.	Pass
Clicked without selecting dates.	Error: Date Range Required.	Pass

**Integration Level Testing V1.0****Admin Dashboard Testing V1.0**

Component	Action/Interaction	Expected Result	Pass/Fail
Add Laboratorian	Enter details, click save.	Laboratorian added successfully.	Pass
View Inventory	Click view inventory.	Displays current machine inventory.	Pass
Generate Income Report	Select range, click generate.	Report displayed with correct calculations.	Pass
Logout Button	Click logout.	Redirected to login page.	Pass

### Laboratorian Dashboard Testing V1.0

Component	Action/Interaction	Expected Result	Pass/Fail
Add Patient	Enter details, click save.	Patient added successfully.	Pass
View Test Records	Click view tests.	Displays list of patient test records.	Pass
Generate Statistical Report	Select range, click generate.	Report generated successfully.	Pass

### System Level Testing V1.0

#### Admin and Laboratorian Interactions V1.0

Test Scenario	Action/Interaction	Expected Outcome	Pass/Fail
Admin adds a laboratorian, laboratorian logs in.	Add laboratorian, use credentials to log in.	Laboratorian login successful.	Pass
Laboratorian updates patient record, Admin views.	Update record, view report.	Updated data visible in Admin report.	Pass
Admin generates income report after laboratorian tests.	Add test, generate report.	Accurate report displayed.	Pass

#### Cross-Page Functional Testing V1.0

Test Scenario	Pages Involved	Expected Outcome	Pass/Fail
Generate test report and download PDF.	Report Page, Download Functionality.	PDF downloaded with accurate report details.	Pass
Logout and Login as a different user.	Logout, Login Pages.	Correct user dashboard loaded post-login.	Pass

#### Rules:

- Username Rules: Must contain only alphabetic characters. No spaces, numbers, or special characters allowed.
- Password Rules: Must be at least 8 characters long, include at least one special character, and one numeric digit.

- Date of Birth Rules: Must follow the DD/MM/YYYY format. Invalid or future dates should not be accepted.
- Report Generation Rules: Reports must be generated within 5 seconds. Invalid or missing date ranges should trigger an error.
- Sensitive Data Handling: All passwords and PII must be encrypted.

## Test Logs

### Admin Dashboard Tests V1.0

Test Case ID	Test Description	Tester	Date Tested	Status	Pass/Fail
TC-Admin-01	Verify Add Laboratorian functionality.	Tester 1	12/01/2024	Pass	Pass
TC-Admin-02	Check Generate Income Report with valid dates.	Tester 1	12/01/2024	Pass	Pass

### Laboratorian Dashboard Tests V1.0

Test Case ID	Test Description	Tester	Date Tested	Status	Pass/Fail
TC-Lab-01	Validate Add Patient with complete information.	Tester 2	12/01/2024	Pass	Pass
TC-Lab-02	Generate report with incomplete date range.	Tester 2	12/01/2024	Fail	Pass

## Workflow Narratives V1.0

### Adding a New Laboratorian

1. The admin logs in and navigates to the Add Laboratorian page.
2. They input the laboratorian's details (Name, DOB, Role) and click save.
3. A success message is displayed, and the laboratorian is added to the system.

### Generating a Test Report

1. A laboratorian logs in and selects a patient.
2. They click on the Generate Report button after setting the date range.
3. The system processes the data and displays the report for download.