

Test Plan

1. Introduction

The purpose of this test plan is to ensure the "Departments Approval" feature functions as expected. The feature allows department staff members to approve loan requests and enables users to view all approvals along with details. The goal is to verify the functionality, security, and accuracy of the approval process.

2. Scope

The scope of testing includes:

- Verifying that department staff members can review and approve loan requests.
- Ensuring the system correctly records and displays approval details, including timestamps and staff member information.
- Validating access control to prevent unauthorized users from approving requests.
- Testing edge cases such as duplicate approvals and system downtime.

3. Objectives

- Verify that the "Approve" button is visible and functional for authorized staff members.
- Ensure that loan requests are marked as approved upon user action.
- Confirm that all department approvals, timestamps, and staff member details are displayed correctly.
- Validate system behavior under edge cases and exceptional scenarios.

4. Approach

- **Functional Testing:** Verify that the "Approve" button is visible and functional for valid loan requests in review.
- **Boundary Testing:** Check behavior for invalid inputs or system constraints (e.g., duplicate approvals).
- **Security Testing:** Ensure only authorized staff members can approve requests.
- **Edge Case Testing:** Validate functionality during system downtimes or for duplicate actions.
- **Regression Testing:** Ensure new updates do not impact existing functionality.

5. Test Items

The following features will be tested:

- Approving a loan request from a specific department.
- Viewing details of all department approvals.
- Recording and displaying timestamps of approvals.
- Access control for unauthorized users.

6. Test Environment

- **Operating Systems:** Windows, macOS.
- **Browsers:** Chrome, Firefox, Safari, Edge (latest versions).
- **Database:** Test database environment with loan request data.
- **Tools:** Test management tools (e.g., JIRA, TestRail), SQL queries for backend validation.

7. Roles and Responsibilities

- **Test Manager:** Oversee the testing process and track progress.
- **QA Engineers:** Design test cases, execute tests, and report bugs.
- **Developers:** Fix bugs identified during testing.
- **Stakeholders:** Review test results and approve the release.

8. Test Deliverables

- Test Cases
- Test Runs
- Defect Reports
- Test Summary Report

9. Entry Criteria

- Test environment is set up and functional.
- All required features are developed and ready for testing.
- Test data (loan requests) is populated in the database.

10. Exit Criteria

- All critical and high-priority test cases are executed.
- No unresolved critical defects remain.

- Approval from stakeholders for release.

11. Risks

Risk	Mitigation Strategy
Loan approvals not displayed accurately.	Perform detailed validation of data displayed in the UI.
Unauthorized access to approval functionality.	Test access control thoroughly with multiple user roles.
Delays in notifications reaching users.	Test notification delivery in real-time scenarios.

12. Test Schedule

Phase	Duration	Activities
Test Planning	1 week	Prepare test plan, test cases, and data.
Test Execution	2 weeks	Execute test cases and log defects.
Bug Fixing and Retesting	1 week	Retest fixed defects.
Test Reporting	3 days	Prepare test summary report.

13. Test Cases

Detailed test cases are prepared for:

- Scenario 1: Approving a Request in Review
- Scenario 2: Viewing Department Approvals

14. Conclusion

This test plan outlines the strategy for testing the "Departments Approval" feature. Successful execution of this plan will ensure that department approvals are functioning as expected and provide a secure and seamless experience for users.

Risk-Based Testing (RBT)

Risk Assessment for "Departments Approval"

Risk	Impact	Likelihood	Priority	Mitigation Plan
Loan request approval status not updated correctly.	High	Medium	High	Validate database updates after approvals.
Approvals not recorded with accurate timestamps.	Medium	Medium	Medium	Test timestamp accuracy during each approval process.
Approvals not visible in the system for users.	High	Low	Medium	Ensure approval details are displayed in the UI.
Unauthorized users approving loan requests.	High	Low	High	Test access control for department representatives.
Multiple approvals logged from the same department.	Medium	Medium	Medium	Ensure duplicate approvals from one department are avoided.

Test Cases for Each User Story

Acceptance Test Cases

Scenario 1: Approving a Request In Review

Test Case ID	Test Scenario	Test Steps	Expected Result
TC-01	Validate "Approve" button visibility	1. Log in as a department staff member. 2. Open a loan request in review.	"Approve" button is visible for the department staff member.

TC-02	Validate loan approval functionality	1. Click the "Approve" button. 2. Check the loan status.	Loan request is marked as approved for that department.
TC-03	Validate approval timestamp	1. Approve a loan request. 2. Check the timestamp in the system.	Timestamp is accurately recorded with the approval.

Scenario 2: Viewing Department Approvals

Test Case ID	Test Scenario	Test Steps	Expected Result
TC-04	Validate visibility of approval details	1. View the loan request after approval. 2. Check the "Approvals" section.	Section displays all approved departments and timestamps.
TC-05	Validate staff member details for approvals	1. View a loan request. 2. Check the approval details.	Displays the approving staff member and department.

Edge Test Cases

Test Case ID	Test Scenario	Test Steps	Expected Result
TC-06	Validate approval for unauthorized user	1. Log in as an unauthorized user. 2. Attempt to approve a request.	System denies access and does not show the "Approve" button.
TC-07	Validate approval for an already-approved request	1. Approve a request. 2. Attempt to approve the same request again.	System prevents duplicate approvals from the same department.
TC-08	Validate approval during a system downtime	1. Simulate system downtime. 2. Attempt to approve a request.	Approval fails gracefully with an error message.

Test Runs

Test Run 1: Happy Path

Objective: Verify that a department staff member can approve a loan request, and approvals are visible.

Test Cases: TC-01, TC-02, TC-03, TC-04, TC-05.

Test Run 2: Input Validation

Objective: Validate proper error handling for duplicate or unauthorized approvals.

Test Cases: TC-06, TC-07.

Test Run 3: Edge Case Testing

Objective: Test uncommon scenarios such as system downtime and timestamp accuracy.

Test Cases: TC-03, TC-07, TC-08.

Test Run 4: Security Testing

Objective: Ensure that only authorized staff members can approve requests.

Test Cases: TC-01, TC-06.