Title: Departments Approval

Test Plan

Objective: Ensure department staff can accurately review and approve loan requests, and users can view a clear summary of department approvals.

Scope:

1. Functional Testing:
    a. Validate the review and approval process for department staff.
    b. Verify accurate display of department approvals, including staff details and timestamps.
2. Non-functional Testing:
    a. Performance testing for requests reviewed and approved simultaneously by multiple departments.
    b. Security testing to ensure department approvals are restricted to authorized staff only.

Entry Criteria:
1. The feature is developed and deployed in the test environment.
2. Completion of dev documentation.
3. Loan request data with varied review statuses is available.
4. Department staff accounts are configured with proper roles and permissions.

Exit Criteria:
1. All high-severity defects are resolved.
2. Approval workflows function correctly across all departments.

Risk-Based Testing (RBT)
1. Approval Workflow:
    a. Risk: Incorrect marking of a loan request as approved due to workflow or UI issues.

b. Mitigation: Validate workflow and test different states (e.g., pending, approved).

2. Approval Display:
    a. Risk: Missing or incorrect display of staff names, departments, or timestamps.
    b. Mitigation: Verify detailed approval data integrity and accuracy.
3. Access Control:
    a. Risk: Unauthorized staff approving requests outside their department.
    b. Mitigation: Perform role-based access control testing.

Possible Test Cases

Acceptance Criteria Test Cases

Scenario 1: Approving a Request In Review
1. Display of Approve Button:
    a. Verify that the "Approve" button is displayed only for requests currently in review by the logged-in department representative.
2. Successful Approval:
    a. Validate that clicking the "Approve" button marks the request as approved for the representative's department.
    b. Ensure that a success message or confirmation is displayed to the representative.
3. Error Handling for Invalid States:
    a. Test scenarios where a loan request is no longer in review but the "Approve" button is still displayed (should not happen).
    b. Verify that the system prevents approval in such cases and displays an appropriate error message.

Scenario 2: Viewing Department Approvals
1. Display of Department Approvals:
    a. Validate that approved requests display all departments that approved them.
    b. Ensure staff member names and timestamps are accurately displayed.
2. Accuracy of Timestamp:
    a. Verify that the timestamp matches the exact time when the "Approve" button was clicked.
3. Unauthorized Viewing:
    a. Test that users without permission cannot view department approvals.

Edge Cases

1. Test scenarios where multiple department representatives approve a request at the same time.
2. Validate that all approvals are logged accurately and without conflicts.
3. Attempt to approve a loan request that is incomplete or already rejected.
4. Ensure the system prevents such actions with clear error messages.
5. Verify that the system handles cases where a staff member's information is missing (e.g., name or department).
6. Test the system's performance and UI responsiveness when displaying approvals for requests involving many departments.
7. Verify that approvals persist correctly in the database even after system crashes or unexpected interruptions.

Test Runs

Run 1: Functional Test Run
Run 2: Role-Based Test Run
Run 3: Load Test Run
Run 4: Regression Test Run