

# System Audit Report

Overall Score: 3.0 / 5.0

Risk Level: High

Date: 2026-01-03

Scope: Full System

## 1. Dimension Scores

Dimension	Score	Findings
Code Quality	5.0	0
Security	5.0	0
Testing	0.0	1
Database	3.5	14
API	0.5	1
Architecture	5.0	0
UI/UX	0.0	3
AI Layer	5.0	6
DevOps	5.0	1
Drift Detection	1.5	7

## 3. Major Findings

### [Major] Test coverage estimated at 6%

Description: Low test coverage detected

Recommendation: Add unit tests for core modules

### [Major] Unenforced Foreign Key: 'employees.department\_id'

Description: Column 'department\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for department\_id

### [Major] Unenforced Foreign Key: 'employees.designation\_id'

Description: Column 'designation\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for designation\_id

**[Major] Unenforced Foreign Key: 'employees.grade\_id'**

Description: Column 'grade\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for grade\_id

**[Major] Unenforced Foreign Key: 'employees.plant\_id'**

Description: Column 'plant\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for plant\_id

**[Major] Unenforced Foreign Key: 'employees.shift\_id'**

Description: Column 'shift\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for shift\_id

**[Major] Unenforced Foreign Key: 'hr\_plants.organization\_id'**

Description: Column 'organization\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for organization\_id

**[Major] Unenforced Foreign Key: 'performance\_reviews.employee\_id'**

Description: Column 'employee\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for employee\_id

**[Major] Unenforced Foreign Key: 'performance\_reviews.reviewer\_id'**

Description: Column 'reviewer\_id' suggests a relation but has no FK constraint.

Recommendation: Add FOREIGN KEY constraint for reviewer\_id

**[Major] 101 components lack accessibility attributes**

Description: Missing aria-labels, alt text, or other a11y features

Recommendation: Add ARIA labels and alt text to improve accessibility

**[Major] Insufficient input validation on AI calls**

Description: Not all AI integrations validate input data (10/37)

Recommendation: Add schema validation before sending data to AI models

**[Major] Unsafe AI Temperature Settings**

Description: Found 36 AI calls without explicit low-temperature settings (risk of hallucinations).

Recommendation: Set temperature=0.0-0.2 for factual tasks.

**[Major] Missing Grounding Instructions**

Description: Found 36 AI prompts without grounding constraints.

Recommendation: Include 'only use provided context' or similar constraints in prompts.

**[Major] Missing Response Validation**

Description: Found 33 AI calls without response validation.

Recommendation: Implement schema validation or parsing for AI outputs to catch malformed responses.

**[Major] Insufficient Fallback Behavior**

Description: Less than 50% of AI calls have fallback logic (0/37).

Recommendation: Implement graceful degradation with default responses when AI calls fail.

4. Action Plan

Issue	Owner	Priority
Test coverage estimated at 6%	unassigned	High
Unenforced Foreign Key: 'employees.department	unassigned	High
Unenforced Foreign Key: 'employees.designatio	unassigned	High
Unenforced Foreign Key: 'employees.grade_id'	unassigned	High
Unenforced Foreign Key: 'employees.plant_id'	unassigned	High
Unenforced Foreign Key: 'employees.shift_id'	unassigned	High
Unenforced Foreign Key: 'hr_plants.organizati	unassigned	High
Unenforced Foreign Key: 'performance_reviews.	unassigned	High
Unenforced Foreign Key: 'performance_reviews.	unassigned	High
101 components lack accessibility attributes	unassigned	High