

# System Audit Report

**Overall Score: 3.0 / 5.0**

Date: 2026-01-07

**Risk Level: High**

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	21
API	0.5	1
Architecture	5.0	0
UI/UX	0.0	3
AI Layer	5.0	6
DevOps	5.0	1
Drift Detection	1.0	8

## 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: 'organizations.tax\_id'**

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

Recommendation: Add FOREIGN KEY constraint for tax\_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: 'grades.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: 'sub\_departments.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: 'shifts.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: 'designations.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: 'departments.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] 108 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 (11/46)

Recommendation: Add schema validation before sending data to AI models

### **[Major] Unsafe AI Temperature Settings**

Description: Found 45 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 45 AI prompts without grounding constraints.

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

### **[Major] Missing Response Validation**

Description: Found 42 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 (0/46).

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: 'organizations.tax_id'	unassigned	High
Unenforced Foreign Key: 'hr_plants.organizati'	unassigned	High
Unenforced Foreign Key: 'grades.organization_	unassigned	High
Unenforced Foreign Key: 'sub_departments.orga	unassigned	High