System Audit Report

Overall Score: 4.0 / 5.0

Date: 2026-01-10

Risk Level: Medium

Scope: Full System

1. Dimension Scores

Dimension	Score	Findings
Code Quality	5.0	0
Security	5.0	0
Testing	0.0	1
Database	5.0	10
API	0.5	1
Architecture	5.0	0
UI/UX	4.2	0
AI Layer	5.0	6
DevOps	5.0	1
Drift Detection	5.0	0

3. Major Findings

[Major] Test coverage estimated at 9%

Description: Low test coverage detected
Recommendation: Add unit tests for core modules

[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: 'departments.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: 'grades.employment_level_id'

Description: Column 'employment_level_id' suggests a relation but has no FK constraint.
Recommendation: Add FOREIGN KEY constraint for employment_level_id

[Major] Unenforced Foreign Key: 'positions.designation_id'

Description: Column 'designation_id' suggests a relation but has no FK constraint.
Recommendation: Add FOREIGN KEY constraint for designation_id

[Major] Insufficient input validation on AI calls

Description: Not all AI integrations validate input data (7/54)
Recommendation: Add schema validation before sending data to AI models

[Major] Unsafe AI Temperature Settings

Description: Found 53 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 53 AI prompts without grounding constraints.
Recommendation: Include 'only use provided context' or similar constraints in prompts.

[Major] Missing Response Validation

Description: Found 49 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 (0/54).
Recommendation: Implement graceful degradation with default responses when AI calls fail.

4. Action Plan

Issue	Owner	Priority
Test coverage estimated at 9%	unassigned	High
Unenforced Foreign Key: 'organizations.tax_id	unassigned	High
Unenforced Foreign Key: 'departments.plant_id	unassigned	High
Unenforced Foreign Key: 'grades.employment_le	unassigned	High
Unenforced Foreign Key: 'positions.designatio	unassigned	High
Insufficient input validation on AI calls	unassigned	High
Unsafe AI Temperature Settings	unassigned	High
Missing Grounding Instructions	unassigned	High
Missing Response Validation	unassigned	High
Insufficient Fallback Behavior	unassigned	High