System Audit Report

Overall Score: 3.3 / 5.0

Date: 2026-01-05

Risk Level: High

Scope: Full System

1. Dimension Scores

Dimension	Score	Findings
Code Quality	5.0	0
Security	5.0	1
Testing	0.0	1
Database	3.5	16
Architecture	5.0	0
UI/UX	0.0	3
AI Layer	5.0	6
DevOps	5.0	1
Drift Detection	1.5	7

2. Critical Findings

[Critical] Potential hardcoded secret detected

Description: Found in test_custom_rules.py
Recommendation: Move secrets to environment variables

3. Major Findings

[Major] Test coverage estimated at 8%

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: '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] Analyzer execution failed: api

Description: name 'File' is not defined
Recommendation: Check analyzer implementation and dependencies

[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 (10/39)
Recommendation: Add schema validation before sending data to AI models

[Major] Unsafe AI Temperature Settings

Description: Found 38 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 38 AI prompts without grounding constraints.
Recommendation: Include 'only use provided context' or similar constraints in prompts.

[Major] Missing Response Validation

Description: Found 35 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 (0/39).
Recommendation: Implement graceful degradation with default responses when AI calls fail.

4. Action Plan

Issue	Owner	Priority
Potential hardcoded secret detected	unassigned	Critical
Test coverage estimated at 8%	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: 'performance_reviews.	unassigned	High