befoodi V2 Architecture

Implementation Roadmap & Flow

Security is a Database Property

Production is the Source of Truth

Verification Beats Generation

Performance is a Constraint

◉ Target Metrics

100+
Tenant Capacity

<2s
Menu Load Time

<50ms
RLS Overhead

7-10y
Data Retention

99.9%
Availability SLA

🚀 Implementation Phases

1 Foundation — Weeks 1-2

- ✓ Environment separation (Local, Staging, Production)
- ✓ Supabase projects with distinct credentials
- ✓ Documentation hierarchy setup
- ✓ First ADRs documenting decisions
- ✓ Pre-commit hooks and CI/CD pipeline

2   Core Schema   Weeks 3-4

- ✓ Tenant isolation model (restaurant_id everywhere)
- ✓ Core tables: tenants, users, staff, menu
- ✓ Standardized soft delete with deleted_at
- ✓ Audit log infrastructure with triggers
- ✓ Partition strategy for time-series data

3   RLS Security   Weeks 5-6

- ✓ Enable RLS on all tables
- ✓ Create policies using cached predicate pattern
- ✓ Index all RLS predicate columns
- ✓ Configure Security Advisors in CI
- ✓ Comprehensive test suite with negative cases
- ✓ Performance benchmark: verify <50ms overhead

4   Auth & Authorization   Weeks 7-8

- ✓ JWT claim structure (restaurant_id, app_role)
- ✓ Auth Hooks for claim injection
- ✓ Restaurant Admin authentication
- ✓ Kitchen Staff auth with device pinning
- ✓ Customer anonymous authentication
- ✓ Platform Admin auth with MFA

5   Business Logic   Weeks 9-11

- ✓ Restaurant onboarding workflow
- ✓ Activation code model
- ✓ Menu management (CRUD operations)
- ✓ Table session management
- ✓ Order processing workflow
- ✓ Kitchen Display System real-time updates

6 Performance & Monitoring

- ✓ OLTP/OLAP separation
- ✓ Materialized views for reporting
- ✓ Connection pooling with PgBouncer
- ✓ Per-tenant rate limiting
- ✓ Automated drift detection
- ✓ Real-time monitoring dashboards

7 AI Orchestration

- ✓ MCP production inspection
- ✓ Antigravity verification pipeline
- ✓ Sharded context strategy
- ✓ 16-phase state machine
- ✓ Artifact-driven trust system

8 Testing & Validation

- ✓ Load test with 100+ simulated tenants
- ✓ Security penetration testing
- ✓ RLS policy audit
- ✓ Performance verification
- ✓ Disaster recovery drill

9 Production Prep

- ✓ Runbooks for common operations
- ✓ Emergency procedures documentation
- ✓ Automated backups with PITR
- ✓ Alerting configuration
- ✓ Team training on V2 architecture

10 Launch & Monitor

- ✓ Soft launch with pilot restaurants

- ✓ Monitor performance and errors
- ✓ Gather feedback and create ADRs
- ✓ Scale to 100+ tenants gradually
- ✓ Continuous improvement cycle

Phase-4 V2 Architecture — Locked Baseline
February 2026
Conformance is mandatory. Deviations are errors.