

## System Architecture v2.0 - Part 1

### 1. Overview

The system utilizes a microservices architecture running on Kubernetes clusters.

### 2. Components

- Load Balancer: Nginx Ingress Controller.
- Backend: Python FastAPI services.
- Frontend: React.js SPA served via CDN.

## System Architecture v2.0 - Part 2

### 3. Database Schema

Primary storage is PostgreSQL 14.

- User Table: UUID (PK), Email (Unique), Hash.
- Transaction Table: ID (PK), Amount, Timestamp, User\_FK.

### 4. Redis Caching

Session data is stored in Redis with a TTL of 30 minutes to reduce database load.