Continuum AI

Group 13

System Use Cases

Diagnostic (UC-001 → UC-005)

- Revenue Drivers Analysis
- Quota Tracking
- Rep Benchmarking
- Pipeline Gap Closure
- Sales Trend Drilldown

Predictive (UC-006, UC-008, UC-009 UC-010, UC-014–UC-015)

- Territory Forecasting
- Product Demand Forecast
- Campaign Impact Forecast
- Churn Risk Forecasting
- Renewal Likelihood Prediction
- Customer Cohort Analysis

Prescriptive (UC-007, UC-012, UC-017–UC-020)

- What-If Pricing Simulation
- Upsell/Cross-Sell Suggestions
- Staffing vs. Sales Demand
- Supply Chain Stress Test
- Lead Source ROI Comparison
- Campaign Underperformance Alerts

Operational & Customer (UC-011, UC-013, UC-016)

- At-Risk Accounts
- Customer Health Dashboard
- Inventory Risk Alerts

Class Diagram
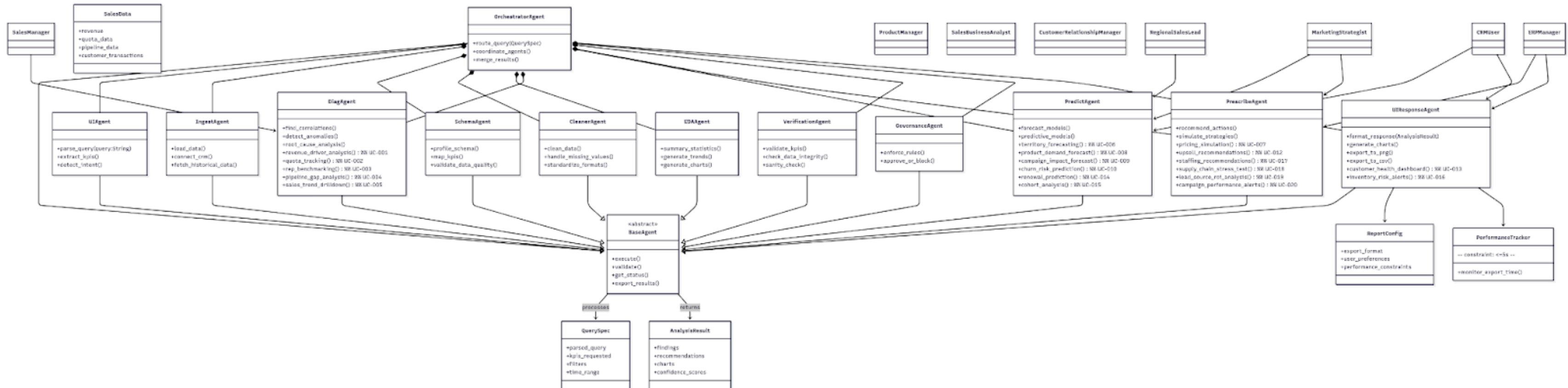
- UIAgent (Interpreter) - Parses natural language queries, extracts KPIs, filters, and date ranges.
- OrchestratorAgent - Routes tasks to appropriate agents and manages execution order.
- IngestAgent - Connects to data sources (CSV, APIs) and loads data.
- SchemaAgent - Profiles schema, infers data types, maps columns to KPIs.
- CleanerAgent - Handles missing values, outliers, type mismatches.
- EDAAgent - Generates summary stats, trends, and charts.
- DiagAgent - Finds correlations, anomalies, and potential causes.
- PredictAgent - Runs forecasting or predictive models.
- PrescribeAgent - Suggests next-best actions with ROI estimates.
- GovernanceAgent - Validates and approves/blocks actions.
- UIResponseAgent - Formats and delivers the final answer to the user.

Sequence Diagrams

Churn Risk Forecasting
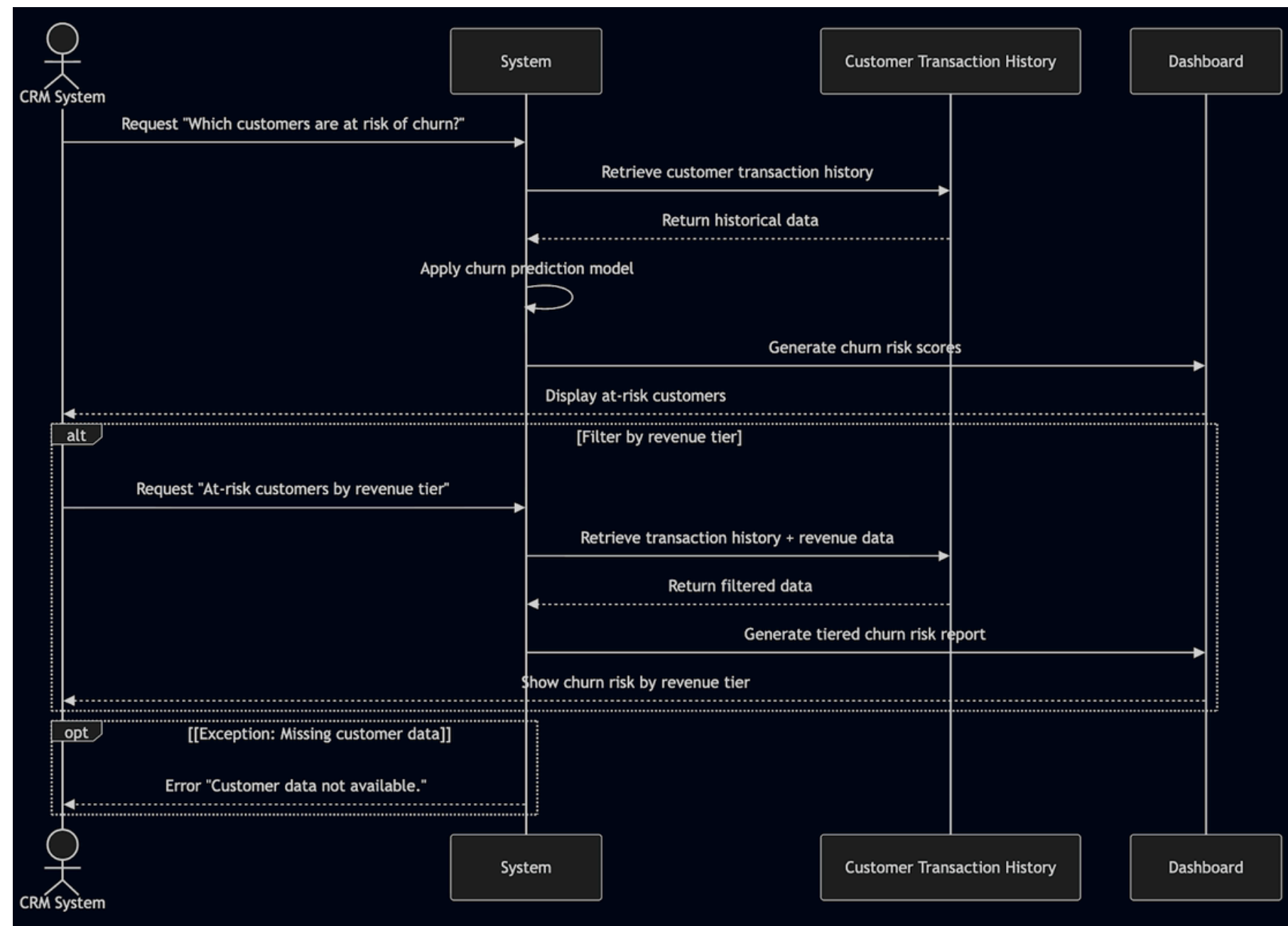
Revenue Driver Anaylsis
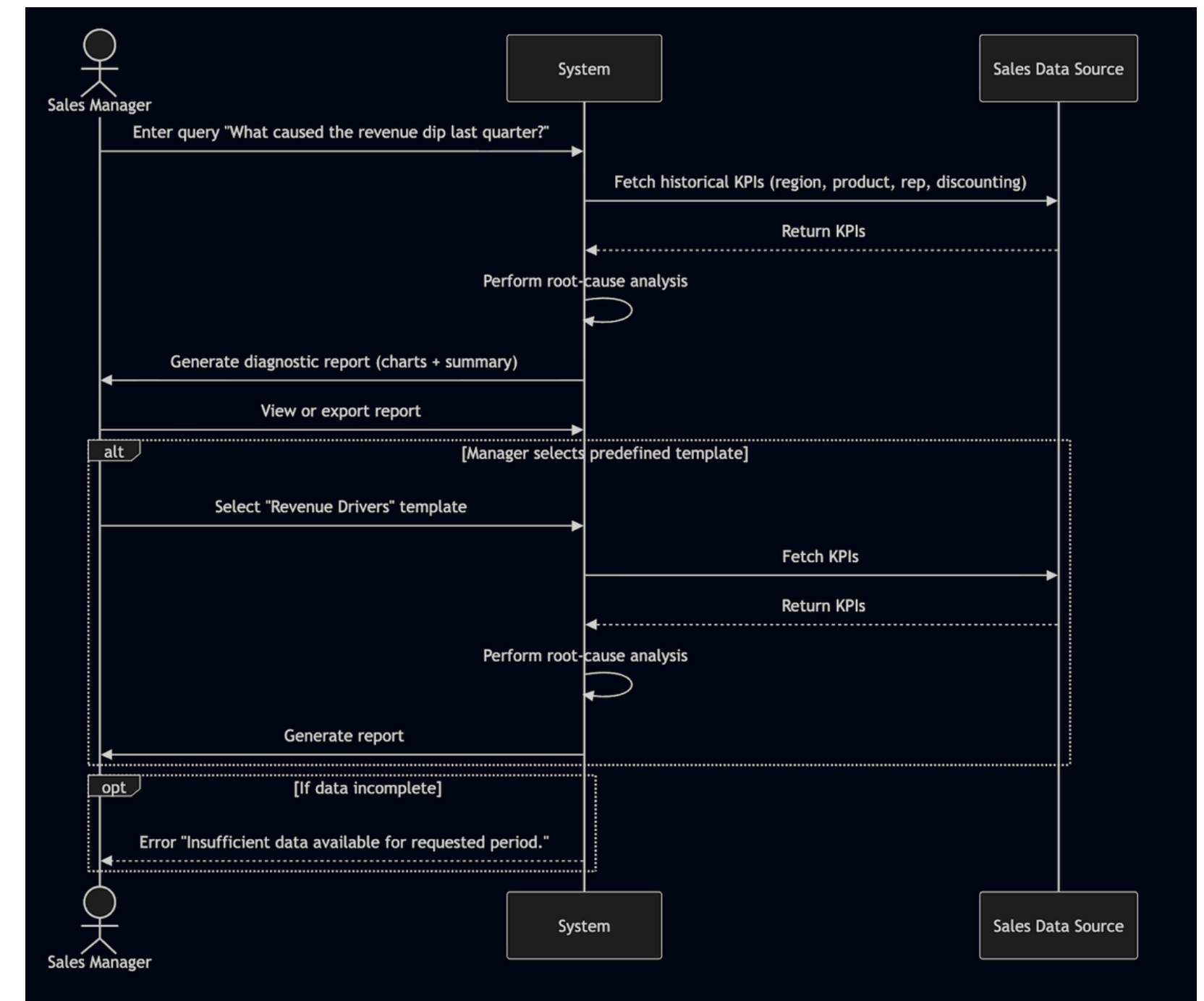
Data Requirements

Data Sources

- No model training for main system.
- Synthetic data for testing
- Public datasets (Kaggle)
- Universal Sales Schema guides design

Model Requirments

- Pretrained LLMs + lightweight models on-demand
- 80% minimum accuracy target
- 80/20 train-test validation
- Dynamic hyperparameter optimization

Data Requirements

- Flexible size (500-10K records)
- Synthetic data should be realistic
- Real-world business patterns
- 4 domains: Retail, B2B, E-commerce, Subscription

Universal Schema

- 12 core tables (Sales, Opportunities, Customer, etc.)
- Supports 20 use cases
- Key KPIs: Revenue, quota, churn, pipeline, ROI
- Users provide 2-4 tables typically