

## Slice Phase 3 – Dev A Responsibilities (Backtesting & Strategy Framework)

This document defines the scope, responsibilities, and interfaces for Developer A, responsible for the Backtesting Framework in Phase 3.

### ROLE OVERVIEW:

Dev A owns all components that produce historical return streams, strategy logic, and integration with the data layer.

### SCOPE OF WORK:

#### 1. Backtrader Integration

- Set up Cerebro engine, broker model, analyzers, data feeds.
- Build custom data feed layer to load data from Postgres→Pandas→Backtrader.

#### 2. Strategy Base Classes

- Build a reusable StrategyBase with:
  - \* entry/exit routing
  - \* signal ingestion
  - \* position scaling
  - \* multi-asset support

#### 3. Prototype Strategies

Implement 3–4 thesis-linked strategies:

- Gold vs Real Yields
- USD Divergence (UUP/FXE)
- Yield Curve Steepener
- Energy Tightness (XLE)

#### 4. Output Contracts

Produce BacktestResultJSON with:

- returns series
- trade log
- summary performance stats

## 5. Interfaces for Dev B

Freeze and maintain:

`run_backtest(strategy_id, params) → BacktestResultJSON`

NOTES:

Dev A output must be deterministic, fully validated, and insulated from the analytics layer.