Sales Team Manager

Design Document

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Table of Contents

[1 Overview 2](#_Toc177302326)

[1.1 Development Phases 2](#_Toc177302327)

# Overview

This project is one part Interview Request Fulfillment and one part reexploring the .NET Platform, as it has evolved over the last few years. The primary requirement will be met in Phase-1. Exploration of .NET evolution will occur in the remaining parts. This will include additional application features, such as a presentation layer, the newer APIs such as Blazor, and security APIs in phase-2. Phase-3 will include Cloud Deployments, Mixed Storage Services to include Cosmos.

## Development Phases

* Phase 1 (Initial MVP):
  + Features
    - Read Sales Data from Simple Sources (CSV)
    - A Common Object Model, supporting a 1-1 match to the sourced CSV Data.
    - Providing a non-secure Web API
    - Servicing via the Web API, the primary query operations requested by the business Unit.
      * The median Unit Cost
      * The most common Region
      * The first and last Order Date and the days between them
      * The total revenue
    - For future reporting we will also support the following queries
      * Total-Revenue, Total-Profit, Total-Cost, Average-Revenue, Average-Profit, Average-Cost, Average-Unit-Cost, Average-Unit-Price, Average-Units-Sold, Profit-For-Year, Profit-For-Quarter, Profit-For-Month
  + Unit Testing
* Phase 2, Enterprise-Wide Product Use Cases:
  + Web Presentation Layer via Blazor
  + Animated Charting
  + Mixed-Org Visually Delineated Query Requests
  + Enterprise/Carrier Grade Identity based Authentication and Data Authorization
  + Tests
    - System Tests
* Phase 3, Multi-Tenant Cloud-based indefinite Scaling
  + 100% Statistically Redistributed Compute and Storage based on use and demand:
    - Kubernetes Execution
    - NoSQL Dynamically expanding cloud-based storage

Phase 1 Implementation Overview

* Reading in Sales Data
* Storing read data in memory to an object model,
* Providing a non-secure Web API endpoint congruent with Microservices Design Principles (containerization) to read the current sales data-set, read a “data-shape” (reporting-period – perhaps we could do some other things with this (applying a set of functions to have a succession of shapes that execute analytical computations in a pipeline fashion
* Enabling a user to issue (perhaps via graph-ql, the primary query operations requested by the business Unit.
  + The median Unit Cost
  + The most common Region
    - The first and last Order Date and the days between them
    - The total revenue

Providing a non-secure Web API endpoint congruent with Microservices Design Principles (containerization) to read the current sales data-set, read a “data-shape” (reporting-period – perhaps we could do some other things with this (applying a set of functions to have a succession of shapes that execute analytical computations in a pipeline fashion

New .NET Projects and APIs

Web Presentation

Blazor

Steeltoe

Testing