**E-commerce Analytics Dashboard Project Plan**

**Overview**

The goal of this project is to develop an e-commerce analytics dashboard that provides comprehensive insights into sales data, customer information, and product trends. The dashboard will leverage a NoSQL database for efficient data storage and fast access. Key components of the project include CRUD operations for data management, search queries across collections, and data visualizations for insightful analysis.

**Collections**

**Orders Collection**

Fields: Order ID, Customer ID, Product IDs, Order Timestamp, Order Details (quantity, price per item), Total Amount.

**Customers Collection**

Fields: Customer ID, Name, Email, Age, Gender, Location.

**Products Collection**

Fields: Product ID, Name, Category, Price, Inventory Level.

**Search Queries**

**Query 1**: Orders by Customer Demographics

Description: Find orders based on customer demographics such as age group and location.

Example: Retrieve orders placed by customers aged 25-35 from New York.

**Query 2**: Products by Category and Price Range

Description: Find products within a specific category and price range.

Example: Retrieve products in the "Electronics" category priced between $100 and $500.

**Data Visualization**

**Line Charts**

**Purpose**: Track sales trends over time.

Example: Monthly sales volume for the past year.

**Bar Charts**

Purpose: Compare sales performance across different customer segments.

Example: Sales volume by age group or geographic location.

**Technologies**

* Database: MongoDB or another NoSQL database.
* Backend: Python with Flask and Dash for web application and data visualization.