Professional DBA Plan for SummitStyle Retail

Student Name: Vincent Mugambi Mutungi

# Objective

Demonstrate ability to produce professional documentation that outlines essential aspects of database administration for a business analytics solution in SQL Server.

# Scenario Summary

SummitStyle Retail Group is implementing a business analytics system using Microsoft SQL Server. I’m a junior database administrator and have been asked to produce a professional DBA plan to support the retail database environment. This document will be presented to the IT director and must be concise, technically sound, and well-formatted.

# Database Narrative

SummitStyle’s transactional database supports key retail operations including in-store and online sales. The design includes normalized tables such as products, customers, employees, stores, and sales transactions. These tables form the core of SummitStyle’s business analytics ecosystem.

Key Tables:

* Sales.SalesOrder: Captures individual sales transactions
* Sales.SalesOrderLine: Line items for each order
* Production.Product: Product catalog
* Sales.Customer: Customer details
* HR.Employee: Employee records
* Sales.Store: Retail store information

# Instructions

Submit a professional memo-style document (750–1000 words) that includes the following five sections:

## 1. Executive Summary

Summarize the purpose of the DBA plan and key strategies for supporting SummitStyle’s analytics efforts.

## 2. User Roles and Access Controls

Define at least three roles (e.g., Admin, Analyst, Viewer) and demonstrate how permissions would be implemented in SQL Server using SQL snippets.

## 3. Basic Maintenance Plan

Describe at least three recurring maintenance tasks and how they would be automated or managed.

## 4. ETL/Data Warehousing Considerations

Explain how transactional data would be extracted, transformed, and loaded. Identify one fact and two dimension tables.

## 5. Data Dictionary

Provide a data dictionary describing the tables with column names, data types, and descriptions.

# Grading Rubric (55 Points Total)

|  |  |  |
| --- | --- | --- |
| Criteria | Excellent (Full Credit) | Points |
| Executive Summary | Clear, professional, aligned with context | /10 |
| User Roles & Access Controls | Well-defined roles with accurate SQL examples | /15 |
| Maintenance Plan | Clear tasks, rationale, and automation method | /10 |
| ETL/Warehousing Considerations | Relevant model and reasoning | /10 |
| Data Dictionary | Accurate and informative table with proper format | /5 |
| Formatting and Clarity | Professional formatting and clear writing | /5 |
| **Total** |  | **/55** |

# Formatting Requirements

• Submit as PDF or DOCX

• Use professional formatting: section headings, tables, readable layout

• Cite the Jukic or Murach textbooks if referencing concepts

• Include SQL snippets where appropriate

# Appendix: Sample Data Dictionary

Use this sample format as a guide for your data dictionary section.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table Name** | **Column Name** | **Data Type** | **Description** |
| Sales.SalesOrder | SalesOrderID | INT | Primary key; unique identifier for each sales order |
|  | CustomerID | INT | Foreign key; references Sales.Customer |
|  | OrderDate | DATETIME | Date and time the order was placed |
|  | StoreID | INT | Foreign key; identifies store location |
|  | TotalAmount | DECIMAL(10,2) | Total amount of the order |
| Sales.SalesOrderLine | SalesOrderID | INT | Foreign key; references SalesOrder |
|  | ProductID | INT | Foreign key; references Product |
|  | Quantity | INT | Number of units sold |
|  | UnitPrice | DECIMAL(10,2) | Price per unit |
|  | LineTotal | DECIMAL(10,2) | Line total = Quantity \* UnitPrice |

### Sales.SalesOrder

This table stores individual sales transactions, including references to the customer, store, and total amount. Key columns: SalesOrderID, CustomerID, OrderDate, StoreID, TotalAmount.

### Sales.SalesOrderLine

This table records the line items associated with each sales order. It includes product-level detail and pricing. Key columns: SalesOrderID, ProductID, Quantity, UnitPrice, LineTotal.

### Production.Product

This table contains product information including name, price, category, and active status. Key columns: ProductID, ProductName, CategoryID, UnitPrice, ActiveFlag.

### Sales.Customer

This table stores customer demographic and loyalty information used for marketing and segmentation. Key columns: CustomerID, FirstName, LastName, Email, JoinDate, LoyaltyStatus.

### HR.Employee

This table includes employee data, primarily store-level staff and managers. Key columns: EmployeeID, FirstName, LastName, Position, StoreID.

### Sales.Store

This table contains information about store locations, such as region, open date, and assigned manager. Key columns: StoreID, StoreName, Region, OpenDate, ManagerID.

# Appendix A: Example SQL Queries

The following SQL queries illustrate how to interact with the SummitStyle Retail database:

* Retrieve all completed sales orders from the last 30 days:

SELECT \*  
FROM Sales.SalesOrder  
WHERE OrderStatus = 'Completed' AND OrderDate >= DATEADD(DAY, -30, GETDATE());

* List the top 5 best-selling products by quantity sold:

SELECT TOP 5 P.ProductName, SUM(L.Quantity) AS TotalQuantity  
FROM Sales.SalesOrderLine L  
JOIN Production.Product P ON L.ProductID = P.ProductID  
GROUP BY P.ProductName  
ORDER BY TotalQuantity DESC;

* Get total sales amount per region:

SELECT S.Region, SUM(O.TotalAmount) AS RegionSales  
FROM Sales.SalesOrder O  
JOIN Sales.Store S ON O.StoreID = S.StoreID  
GROUP BY S.Region;

# Appendix B: Schema Diagram Placeholder

Please include a visual representation of the SummitStyle database schema. You may create this using the diagramming features in SQL Server Management Studio.  
  
Your schema diagram should illustrate the primary tables, their key attributes, and relationships (foreign keys).