Courtney Baker

**Assignment 1: Part 1**

**Figure 1.28 Screenshot**

A screenshot of a computer

Description automatically generated

**Figure 1.28 Script:**

CREATE TABLE [dbo].[Department] (

[DepartmentName] TEXT IDENTITY (1, 1) NOT NULL,

[BudgetCode] TEXT NULL,

[OfficeNumber] TEXT NULL,

[Phone] TEXT NULL,

CONSTRAINT [PK\_Department] PRIMARY KEY CLUSTERED ([DepartmentName] ASC)

);

**Figure 1.30 Screenshot**

A screenshot of a computer

Description automatically generated

**Figure 1.30 Script:**

CREATE TABLE [dbo].[Employee] (

[EmployeeNumber] TEXT IDENTITY (1, 1) NOT NULL,

[FirstName] TEXT NULL,

[LastName] TEXT NULL,

[Department] TEXT NULL,

[Phone] TEXT NULL,

[Email] TEXT NULL,

CONSTRAINT [PK\_Employee] PRIMARY KEY CLUSTERED ([EmployeeNumber] ASC)

);

**Assignment 1: Part 2**

**Writing SQL queries - Programming Foundations: Databases Video Tutorial**

I found the writing SQL queries tutorial to be a valuable resource for mastering the essentials of SQL. The course breaks down the complexity of SQL into manageable sections, starting with the basics like SELECT statements and gradually moving to more advanced topics such as JOIN operations and subqueries. The hands-on exercises and real-world examples make the concepts easy to understand and apply, helping me build confidence in writing efficient SQL queries. This tutorial not only bolstered my understanding of database management but also enhanced my problem-solving skills, making it a crucial part of my learning journey in data analysis and software development.

**Narrowing query results - Programming Foundations: Databases Video Tutorial**

The narrowing query results tutorial focuses on teaching how to filter and streamline data retrieval using the WHERE clause, along with various operators and conditions to precisely target the desired data. The clear explanations and practical examples demonstrated how to effectively use comparison operators, logical operators, and pattern matching to narrow down query results. These techniques have proven invaluable in making my queries more efficient and relevant, significantly enhancing my ability to handle and analyze large datasets with precision and ease.

**Sorting results - Programming Foundations: Databases Video Tutorial**

This part of the tutorial effectively explains how to sort query results in ascending or descending order based on one or more columns. The step-by-step guidance, combined with practical examples, made it easy to understand how sorting can organize data in a meaningful way, enhancing readability and analysis. Learning to sort results efficiently has been particularly useful for my projects, allowing me to present data in a more structured and insightful manner, which is crucial for reports and data-driven decision-making.

**Aggregate functions - Programming Foundations: Databases Video Tutorial**

This aggregate functions tutorial demystifies essential aggregate functions like COUNT, SUM, AVG, MAX, and MIN, showing how they can be used to summarize and gain insights from large datasets. The instructor's clear explanations and practical examples make these concepts accessible and applicable, helping me to quickly grasp how to calculate totals, averages, and other key metrics directly within my SQL queries. Mastering aggregate functions has significantly enhanced my ability to analyze data efficiently, making my work more insightful and impactful in academic projects and beyond.

**Joining tables - Programming Foundations: Databases Video Tutorial**

The joining tables tutorial breaks down complex concepts of different types of joins, including INNER JOIN, LEFT JOIN, RIGHT JOIN, and FULL OUTER JOIN, with clear explanations and real-world examples. By demonstrating how to link related data across tables, it helps in building comprehensive queries that reflect more complete and meaningful datasets. Learning how to join tables has greatly enhanced my ability to perform complex data analyses and develop more robust database queries, proving indispensable for both my academic coursework and future career in data management.