**Course Title**: Introduction to Database Programming with T-SQL for Beginners

**Course Description**:

This digital course is designed for absolute beginners with zero programming experience who want to learn the fundamentals of database programming using Transact-SQL (T-SQL). T-SQL is a powerful language used for managing and querying relational databases like Microsoft SQL Server. By the end of this course, you will have the foundational skills to work with databases, write T-SQL queries, and understand the basics of database design.

**Course Duration**: 8 weeks (adjustable as needed)

**Course Outline**:

**Week 1: Introduction to Programming, Databases and SQL**

**Lesson 1.1**: Understanding Computer Programming

* What is a Computer Program
* Overview of Programming Languages
* Why do I need to learn how to program

**Lesson 1.2**: Understanding Databases

* What is data
* What is a database?
* Types of databases (relational, NoSQL, etc.)

**Lesson 1.3**: Introduction to SQL

* What is SQL?
* SQL vs. T-SQL
* Common database systems (SQL Server, MySQL, Oracle)

**Week 2: Getting Started with SQL Server**

**Lesson 2.1**: Installing SQL Server Developer Edition

* Download and installation steps
* Configuration and setup

**Lesson 2.2**: SQL Server Management Studio (SSMS)

* Navigating the SSMS interface
* Connecting to databases

**Week 3: Creating Databases and Tables**

**Lesson 3.1**: Creating a Database

* SQL Server databases
* Creating your first database

**Lesson 3.2**: Designing Tables

* Data types
* Creating tables
* Primary keys and constraints

**Week 4: Retrieving Data with SELECT Statements**

**Lesson 4.1**: Understanding SELECT Statements

* Syntax and structure
* Filtering and sorting data

**Lesson 4.2**: Retrieving Data from a Single Table

* Basic SELECT queries
* Aliases and expressions

**Week 5: Modifying Data with INSERT, UPDATE, and DELETE**

**Lesson 5.1**: INSERT Statements

* Adding data to tables
* Identity columns

**Lesson 5.2**: UPDATE and DELETE Statements

* Modifying and deleting data
* Transactions and data integrity

**Week 6: Working with Joins and Relationships**

**Lesson 6.1**: Understanding Joins

* Inner, left, right, and full joins
* Joining multiple tables

**Lesson 6.2**: Relationships and Foreign Keys

* Creating relationships
* Cascading actions

**Week 7: Introduction to Functions and Stored Procedures**

**Lesson 7.1**: Scalar Functions

* Creating and using scalar functions
* Built-in functions

**Lesson 7.2**: Stored Procedures

* Creating stored procedures
* Parameters and execution

**Week 8: Basic Database Design Principles**

**Lesson 8.1**: Normalization

* Understanding database normalization
* Benefits and trade-offs

**Lesson 8.2**: Indexes and Optimization

* Creating indexes for performance
* Query optimization basics

**Course Conclusion and Next Steps**

* **Recap of Key Concepts**: A summary of the course's main topics.
* **Next Steps**: Guidance on further learning, career paths, and resources for continued growth in database programming.

**Additional Resources**: A list of recommended books, websites, and forums for students to explore as they continue their journey in database programming.

**Quizzes and Assignments**: Periodic quizzes and assignments to assess students' understanding and reinforce key concepts.

**Final Project**: A practical database project where students can apply their knowledge to create and query a real-world database.

**Discussion Forums**: Online forums or discussion boards for students to ask questions, share insights, and collaborate on assignments.

**Instructor Support**: Access to an instructor or mentor for clarifications and guidance.

**Note**: The course duration, specific content of lessons, and level of detail can be adjusted to suit the learners' pace and needs. Practical exercises and hands-on labs should be an integral part of the course to reinforce theoretical knowledge with practical skills.