Code bunk link: https://codebunk.com/b/4001100711098/

• Evolution of Software

• Life Cycle Phases

• Planning Analysis

Software Engineering & SDLC Phases

• Requirements Analysis Hours

• Design and Prototyping

• Development of the Application

• Testing and Deployment

• Project Management

• Pre-code planning

Flow Chart and Pseudocode

• Pseudocode

• Verify Algorithm

• Flowchart

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Describe a DBMS, its components, and advantages for

users.

• Describe the features and characteristics of flat-file,

hierarchical, and XML database models.

• Levels of a DBMS architecture

• Types of constraints

• Describe normalization in relation to designing a

database.

• Perform first normal form when designing a database.

• Perform second normal form when designing a

database.

• Perform third normal form when designing a

database.

• Perform BCNF when designing a database.

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Describe entity-relationship modeling for a RDBMS

• Define Entities, Attributes, Relationships

• Degree of relationships

• Cardinality of relationships

• Relational Database Model

• Create an ERD for a database based on a Scenario.

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• What is Git?

• How to Install Git on Windows?

• What is GitHub?

• Git commands.

• Git vs. GitHub.

• What is GitLab?

• Git Clone Commands.

• Git Push Commands.

• Git Pull Commands.

• Git History

• Branching and Merging

• Resolve Merge Conflicts in Git

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What is a Database?

• What is SQL?

• What is Sql Server?

• SQL Commands

Basic T-SQL

• SQL Server Management Studio

• Database Schema

• Data Types and Null, Not Null options, Identity

Columns

• Working with Data

DDL Commands

• DDL Commands

• Add table to Database

• Describe Table

• Alter Table

• Modify and Drop Clause

• Data manipulation

• Constraints

Query Clauses

• Database schema

• Import Data

• Query Clauses

• Column Alias

Introduction to joins

• Types of joins

• Inner Join

• Left Outer Join

• Right Outer Join

• Full outer Join

• ANSI Join Syntax

• Self-Join

• Equi and non-equi Join

• Set Operations

Functions in SQL

• String Functions

• Numeric Functions

• Date Functions

• Aggregate Functions

• Generate Groups

SQL Subqueries

• SQL subqueries

• Correlated subqueries

• Non-correlated subqueries

Views

• Views

• Creating altering view-Restrictions and features, With

options

• Simple and Complex views

Procedures & Functions

• Stored procedures - System and User Defined

• Stored procedure with input and output params,

optional params

• Creating Functions in Sql Server

• User defined function: Scalar valued and Table

Valued

• Inline Table Valued and Multi statement Table

Valued

• Introduction to CTE and Recursive CTE

Triggers

• Concept of Triggers

• Types of Triggers: For/After Triggers and Instead

of triggers

• DDL and DML Triggers

• Magic Tables: Deleted and Inserted Tables

• Implementing User Defined Integrity with Triggers

• Cascading changes and automating updates with

Triggers Enable/Disable triggers, Trigger execution

order

• Recursion and nesting limits of triggers

• Triggers on views: Making Complex views

updatable with triggers