Database concepts and SQL
COURSE CONTENT

Introduction to Database Design Fundamentals

- Database Concepts
- Relational Databases & its characteristics
- Entities, Attributes and relationships
- Functional Dependencies
- Keys Introduction and requirement
- Database Designs
- Methods
- Design Requirement
- Process Examples
- Normalization
- Examples for Database Design

An introduction to SQL

- What is SQL?
- Tune with SQL
- SQL Server Design Architecture
- SQL processing and various examples
- Starting the SQL engine (installation)

Interactive SQL

- SQL data types
- Different Languages in SQL
- Data manipulation In Database
- Two-dimension Table creation
- Creating a table
- Creating a table from a table
- Insertion of Data into a Table

- Updating Table Contents
- How to Delete Data from Table
- Faces of select command

Data Constraints

- Table level and column level constraint
- Key concepts
- Check integrity constraints

SQL Operators

SQL Functions

SQL Clause and pattern

- Union, Intersection & minus
- Like and IN

Grouping and Sorting Data

- Group by
- Order By

Joins

- Inner join
- Outer Join (left, Right, Full)
- Self Join
- Cross Join

Sub Queries

Indexes

- Create and Drop
- Types of Index

Views On Database

- Creating and Updating views
- Renaming
- Destroying views

Sequences

- Creating & Referring
- Altering Seq
- Dropping Seq

Clone Table

SQL – Transaction

- Commit
- Rollback
- Savepoint
- Set Transaction

Granting Permission

- How to right the permissions on the object
- Object privileges
- Create Roles