

Database & System Analysis - 10 Days

Introduction to System Analysis and Design

- Introduction
- System Development Tools
- Introduction to software engineering
- Software Process
- Software Process Model
- Software Product
- Importance of Software engineering
- Software Development Life Cycles
- Requirements Engineering
- Types of Requirements
- Steps involved in Requirements Engineering
- Requirement Analysis Modeling

System Design

- Introduction
- Design and Architectural Engineering
- Characteristics of Good Design
- Function Oriented vs Object Oriented System
- Data Flow Diagram
- Entity-Relationship Diagrams
- Data Normalization
- Design Models
- UML Modeling

DATABASE

- Installation of Postgres on Windows
- Database Management Concepts
- DDL Commands : Create, Alter, Drop, Grant, Revoke, Truncate
- Data Integrity & integrity rules
- Entity integrity constraint and referential integrity constraint
- Integrity Constraints (Primary Key, NOT NULL, Foreign Key, Unique Key, Check Constraints)
- DML Commands : Insert, Update, Delete
- Select, Order by

- Inbuilt Functions
- Single Value Functions
- Group Value Functions

- DCL Commands: Rollback, Commit
- Grouping Things Together (Group By, Having Clause)
- Sub-queries
- Set Operators (UNION, INTERSECT , UNION ALL)

- Joins : Types of join (CROSS JOIN, INNER JOIN,LEFT OUTER JOIN, RIGHT OUTER JOIN, FULL OUTER JOIN)
- Views : CREATE VIEW, ALTER VIEW, DROP VIEW