

PostgreSQL Basic Course (Duration 15 Hours)

About the Course:

Designed for PostgreSQL beginner who wants learn administration after this course.

Required Prerequisites : Operating system knowledge

Topics

1) Introduction and Over View of PostgreSQL

2) PostgreSQL System Architecture

- Architecture Summary
- Process Architecture
- Database Cluster
- Physical Database Architecture
- Data File Architecture

3) Installation and Database Clusters

- Installation of PostgreSQL
- Creating Database Cluster
- Starting & Stopping the Database Server

4) Configuration

- Setting PostgreSQL Parameters
- Access Control
- Connection Settings
- Security and Authentication Settings
- Memory Settings
- Free Space Settings
- Kernel Resource Settings
- Log Management
- Background Writer Settings
- Vacuum Cost Settings
- Autovacuum Settings

5) Creating and Managing Databases

- Users
- Groups
- Roles
- Object Ownership
- Access control
- Application Access
- Schemas and Search Paths

6) User Tools: CUI & GUI

- PSQL
- GUI Tool: PG Admin III

7) Security

- Levels of Security: pg_hba.conf, Schemas, Users and Table Level
- pg_hba.conf

8) SQL Primer

- Data Types
- Tables SQL Queries
- insert,
- delete
- update,
- Select Using SQL Functions
- Constraints
- Dropping or Removing Database Objects
- Views
- Sequences
- Indexes

9) Data Dictionary

- The System Catalog Schema
- System Information views/tables
- System Information Functions

10) Loading and Moving Data

- COPY Command

11) Backup & Recovery

- pg_dump
- pg_restore
- pg_dumpall
- File System Backup - Copying Data Folder
- pg_start_backup and pg_stop_backup

HOURS BREAKUP

Sr. No	Module Name	Hours
1	Introduction of PostgreSQL	5 Hrs
2	PostgreSQL System Architecture	
3	Installation and Database Clusters	
4	Configuration	5 Hrs
5	Creating and Managing Databases	
6	User Tools: CUI & GUI	
7	Security	
8	SQL Primer	5 Hrs
9	Data Dictionary	
10	Loading and Moving Data	
11	Backup & Recovery	