PostgreSQL DBA Course Content

1. Introduction.

- Introduction and overview of PostgreSQL database.
- History of PostgreSQL.
- Features of PostgreSQL.

2. Installation

- RPM Installation.
- Generic Binaries Installation (zip/tar).
- Basic configuration options.

3. Client & Server Applications/Utilities.

- **initdb**
- **pg_controldata**
- **pg_ctl**
- **pg_resetxlog**
- **postgres**
- **postmaster**

- **clusterdb**
- **createdb**
- **createlang**
- **createuser**
- **dropdb**
- **droplang**
- **dropuser**
- **ecpg**
- **pg_basebackup**
- **pg_config**
- **pg_dump**
- **pg_dumpall**
- **pg_isready**
- **pg_receivexlog**
- **pg_recvlogical**
- **pg_restore**
- **psql**
- **reindexdb**
- **vacuumdb**

4. Working with Database and Tables.

- Introduction to PostgreSQL commands (with lab).
- Creating a Database, table.
- Creating, Reading and Updating Data (CRUD).

- Indexing
- Grouping
- Aggregation.
- Optimize Query Performance

5. User and Role Management.

- Create a User.
- Create a Role.
- Create a group.
- Grant/Revoke Privileges.
- Verify/Modify a User Access/Privileges.
- Change a User's Password.

6. Locks

7. Logs

8. Backup

- SQL dump.
- File system level backup.
- Continuous archiving.

9. Restore & Continuous Archiving and Point-in-Time Recovery (PITR).

10. Security.

11. Server Optimization.

12. Table Partitioning.

13. Inheritance.

14. Replication.

- Master to slave Replication.
- PgCluster Master to Master Replication.
- PgPool-II statement based Replication.
- Troubleshoot Replica Sets.

15. Upgrading PostgreSQL.

16. PgAdmin-III

- Installation
- Configuration
- Maintenance