POSTGRESQL DATABASE ADMINISTRATION

WEEK 1

- Welcome
- Installing the PostgreSQL Server
- Setting Environment Variables
- Creating a Cluster
- Running Server
- Connection Settings
- Security and Authentication
- Resource Settings

WEEK 2

- WAL
- Error Reporting and Logging
- Autovacuum
- Runtime Statistics, etc.
- Postgres hosed based access configuration
- Introduction To PSQL
- Moving objects between tablespaces
- Using materialized views

WEEK 3

- Accessing objects in other PostgreSQL databases (postgres_fdw, dblink)
- File_fdw, hstore, pgcrypto,etc
- User Management
- Preventing Connections
- Checking secure password
- Auditing Changes
- Encrypting Sensitive data

WEEK 4

- Real-time viewing using pgAdmin
- Checking whether a user is connected
- Checking which queries are running
- Checking which queries are active or blocked
- Knowing who is blocking a query
- Killing a specific session
- Knowing when a table was last used
- Usage of disk space by temporary data

- Understanding why queries slow down
- Producing a daily summary of log file errors
- Analyzing the real-time performance of your queries

WEEK 5

- Find and Tune Slow Running Queries
- Collecting regular statistics from pg_stat* views
- Finding out what makes SQL slow
- Speeding up queries without rewriting them
- Discovering why a query is not using an index
- Forcing a query to use an index

WEEK 6

- Controlling automatic database maintenance
- Removing issues that cause bloat
- Identifying and fixing bloated tables and indexes
- Monitoring and tuning vacuum
- Updating Table Statistics
- Vacuuming
- Re-indexing

WEEK 7

- Planning backups
- Backup Types
- Restore
- Exporting/Importing Data To/From A Flat File

WEEK 8

- Replication
- Handling Switchover & Failover
- Upgrading Best Practices
- Migration from Oracle to Postgres using Ora2PG