

Oracle Database

Duration – 40 Hours

Program Description

This program provides a complete introduction to Oracle Database, covering relational database concepts, SQL programming, PL/SQL, and database administration. Participants will gain practical skills to design, manage, and optimize Oracle databases for enterprise applications. The program emphasizes hands-on exercises to ensure proficiency in real-world scenarios.

Learning Goals

- Understand relational database concepts and Oracle architecture
- Gain proficiency in SQL for querying and managing data
- Learn PL/SQL for procedural programming within Oracle
- Design and implement database schemas, constraints, and indexes
- Understand backup, recovery, and security practices
- Optimize database performance and manage large datasets
- Gain hands-on experience with real-world Oracle database projects

Course Topics

- Introduction to Oracle Database and Architecture
- SQL Fundamentals: Queries, Joins, and Subqueries
- Data Definition and Manipulation (DDL & DML)
- PL/SQL Programming: Procedures, Functions, and Triggers
- · Database Design, Normalization, and Indexing
- Transactions, Concurrency, and Locking
- Backup, Recovery, and Security Best Practices
- Performance Tuning and Optimization
- Hands-on Projects and Case Studies