



## Oracle Database Administrator – Fast Track

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*Learn by Doing*



# Oracle Database Administrator – Fast Track

## Course Overview

This Oracle Database Administrator (Fast Track) course prepares participants to install, configure, manage, and maintain an Oracle database environment. Over four days, learners will gain hands-on experience with Oracle Database architecture, instance management, users and security, storage structures, networking, and essential backup and recovery techniques. The course emphasizes real-world administrative tasks and best practices to build a foundation for effective database maintenance and performance monitoring.

## Duration & Module Coverage

Duration: 4 Days (32 hrs)  
Time: 9.30 am to 5.30 pm

<u>Per Day Schedule</u>	<u>Module Coverage</u>
<b><u>Session 1:</u></b> 09.30 - 11.00 Theory 11.00 - 11.10 Break 11.10 - 13.10 Practical 13.10 - 13.50 Break <b><u>Session 2:</u></b> 13.50 - 15.50 Theory 15.50 - 16.00 Break 16.00 - 17.30 Practical	<b>Day 1 – Modules 1 to 4</b>  <b>Day 2 - Modules 5 to 7</b>  <b>Day 3 – Modules 8 to 10</b>  <b>Day 4- Modules 11 to 13</b>
<a href="#">Click here to view full detailed module list</a>	

## Learning Goals

By the end of this four-day Oracle Database Administrator course, participants will have developed a strong understanding of Oracle database architecture and core components, along with the skills required to install and configure an Oracle database environment. The course focuses on building practical administration capabilities, including managing database instances, users, storage, security, and network connectivity, as well as performing basic backup and recovery operations. Participants will also learn to use Oracle administrative tools for ongoing monitoring and basic performance analysis to ensure stable and efficient database operations.

## Pre-Requisites

This course is intended for participants who have a basic understanding of relational database concepts and SQL fundamentals. Familiarity with using a command-line interface and basic operating system concepts (such as file systems and processes) is recommended.

## **Teaching Methodology**

This is a very hands-on course where participants carry out practical exercises in the classroom. The concepts are taught through implementation of real-world use-cases. Our exercises have been carefully designed to replicate scenarios participants will face in real life work conditions. We have adopted a 'Learn by Doing' pedagogical approach - Class room training with practical. Our trainings are not only PPT based.

## **Who Should Take This Course?**

This course is ideal for aspiring Oracle Database Administrators, junior DBAs, and IT professionals who are responsible for managing, supporting, or maintaining Oracle database environments. It is also well suited for system administrators, application support engineers, and database developers who want to strengthen their understanding of Oracle database administration and build a foundation for DBA roles or Oracle certification paths.

# Course Content

## Day 1 - Oracle Architecture, Installation & Database Creation

### Learning Outcomes:

- ❖ Understand Oracle database architecture
- ❖ Set up DBA tools and environment
- ❖ Install and create Oracle databases

<u>Session 1: Modules 1 &amp; 2</u> <u>Time: 09.30 to 13.10</u>	<u>Session 2: Modules 3 &amp; 4</u> <u>Time: 13.50 to 17.30</u>
<p><b>1. Oracle Database Architecture</b></p> <ul style="list-style-type: none"> <li>• Oracle Database overview</li> <li>• Relational database concepts</li> <li>• Memory structures (SGA, PGA)</li> <li>• Background processes and instance components</li> <li>• Logical vs physical storage structures</li> <li>• Data files, tablespaces, segments, extents, blocks</li> </ul> <p><b>2. Tools and Environment Setup</b></p> <ul style="list-style-type: none"> <li>• Administrative tools for Oracle DBAs</li> <li>• Using SQL*Plus and Oracle Enterprise Manager</li> <li>• Setting environment variables</li> <li>• Oracle Universal Installer (OUI)</li> <li>• Oracle Flexible Architecture (OFA) principles</li> </ul>	<p><b>3. Installing Oracle Database Software</b></p> <ul style="list-style-type: none"> <li>• Software installation planning</li> <li>• Running Oracle Universal Installer</li> <li>• Selecting installation options</li> <li>• Post-installation configuration</li> </ul> <p><b>4. Filtering Creating an Oracle Database</b></p> <ul style="list-style-type: none"> <li>• Introduction to Database Configuration Assistant (DBCA)</li> <li>• Planning a database</li> <li>• Creating databases using DBCA</li> <li>• Starting and stopping a database instance</li> </ul>

## Day 2 - Instance Management, Networking & Security

### Learning Outcomes:

- ❖ Manage Oracle database instances
- ❖ Configure Oracle networking and connectivity
- ❖ Administer users and database security

<a href="#"><u>Session 1: Modules 5 &amp; 6</u></a> <a href="#"><u>Time: 09.30 to 13.10</u></a>	<a href="#"><u>Session 2: Module 7</u></a> <a href="#"><u>Time: 13.50 to 17.30</u></a>
<b>5. Managing Oracle Database Instances</b> <ul style="list-style-type: none"> <li>Managing instance startup and shutdown</li> <li>Initialization parameter files</li> <li>Using Alert logs and trace files</li> <li>Dynamic Performance Views (V\$ views)</li> <li>Using the Data Dictionary</li> </ul> <b>6. Oracle Net Services &amp; Client Connectivity</b> <ul style="list-style-type: none"> <li>Configuring Oracle Net</li> <li>Listener setup and administration</li> <li>Naming methods and networking tools</li> <li>Testing connectivity (tnsping, SQL*Net)</li> </ul>	<b>7. Users, Privileges &amp; Security</b> <ul style="list-style-type: none"> <li>Creating and managing user accounts</li> <li>Granting and revoking privileges</li> <li>Using roles</li> <li>Assigning profiles</li> <li>Authentication and basic auditing</li> </ul>

## Day 3 - Storage & Data Management

### Learning Outcomes:

- ❖ Manage storage and tablespaces
- ❖ Administer database objects and storage
- ❖ Control transactions and concurrency

<a href="#"><u>Session 1: Modules 8 &amp; 9</u></a> <a href="#"><u>Time: 09.30 to 13.10</u></a>	<a href="#"><u>Session 2: Module 10</u></a> <a href="#"><u>Time: 13.50 to 17.30</u></a>
<b>8. Storage Structures &amp; Tablespaces</b> <ul style="list-style-type: none"> <li>Tablespaces overview</li> <li>Creating and managing tablespaces</li> <li>Managing data files and temp files</li> <li>Undo tablespaces and undo management</li> </ul> <b>9. Managing Database Objects</b> <ul style="list-style-type: none"> <li>Creating and managing schema objects</li> <li>Using Oracle Managed Files (OMF)</li> <li>Understanding segments, extents, and blocks</li> </ul>	<b>10. Undo, Concurrency &amp; Transactions</b> <ul style="list-style-type: none"> <li>Transactions management</li> <li>Undo vs redo data concepts</li> <li>Locking and concurrency control</li> <li>Resolving lock conflicts</li> </ul>

## Day 4 - Backup & Recovery, Monitoring & Best Practices

### Learning Outcomes:

- ❖ Implement backup and recovery strategies
- ❖ Monitor and analyze database performance
- ❖ Apply skills through hands-on practice

<p><b><u>Session 1: Modules 11 &amp; 12</u></b>  <b><u>Time: 09.30 to 13.10</u></b></p>	<p><b><u>Session 2: Module 13</u></b>  <b><u>Time: 13.50 to 17.30</u></b></p>
<p><b>11. Backup and Recovery Fundamentals</b></p> <ul style="list-style-type: none"> <li>• Backup strategies and planning</li> <li>• Introduction to Oracle Recovery Manager (RMAN)</li> <li>• Configuring flash recovery area</li> <li>• Performing basic database backup and restore</li> <li>• Control file and redo log file backups</li> </ul> <p><b>12. Monitoring and Performance Basics</b></p> <ul style="list-style-type: none"> <li>• Creating Monitoring the database with Enterprise Manager</li> <li>• Using performance views</li> <li>• Understanding performance bottlenecks</li> <li>• Efficient SQL monitoring basics</li> </ul>	<p><b>13. Course Review &amp; Hands-On Labs</b></p> <ul style="list-style-type: none"> <li>• Review of key concepts</li> <li>• Hands-on labs covering: <ul style="list-style-type: none"> <li>○ Instance startup/shutdown</li> <li>○ User management</li> <li>○ Tablespace creation</li> <li>○ Backup/restore scenarios</li> </ul> </li> <li>• Q&amp;A and next steps</li> </ul>