TIB ACADEMY
TRAINING IN BANGALORE

DELIVERING THE BETTER TRAINING

"

Flexible, Affordable, Accessible service.

📱 **CALL US**
+91 9513332301

TRAINING IN BANGALORE
TIB
ACADEMY

TIB ACADEMY'S
SERVICE FEATURE

⚙️ **Affordable Fees**
We provide quality training with lowest price. This opportunity is available only at TIB Academy.

💡 **Experienced Trainers**
Learn technology with a experienced professional who have expertise in their particular technology.

📊 **Flexible Timings**
We believe that everyone should get the opportunity to learn their desired course. So we provide flexibility timings.

ORACLE®
DATABASE

PL/SQL

Quick Contact

📍 Second Floor and Third Floor, 5/3 BEML Layout, Varathur Main Road, Kundalahalli Gate, Bengaluru, Karnataka 560066

www.traininginbangalore.com

✉️ **info@tibacademy.com**

💬 **+91 9513332306**

ORACLE SQL Syllabus

Introduction to Oracle Database

- List the features of Oracle Database 11g
- Discuss the basic design, theoretical, and physical aspects of a relational database
- Categorize the different types of SQL statements
- Describe the data set used by the course
- Log on to the database using SQL Developer environment
- Save queries to files and use script files in SQL Developer

Retrieve Data using the SQL SELECT Statement

- List the capabilities of SQL SELECT statements
- Generate a report of data from the output of a basic SELECT statement
- Select All Columns
- Select Specific Columns
- Use Column Heading Defaults
- Use Arithmetic Operators
- Understand Operator Precedence
- Learn the DESCRIBE command to display the table structure

Learn to Restrict and Sort Data

- Write queries that contain a WHERE clause to limit the output retrieved
- List the comparison operators and logical operators that are used in a WHERE clause
- Describe the rules of precedence for comparison and logical operators
- Use character string literals in the WHERE clause
- Write queries that contain an ORDER BY clause to sort the output of a SELECT statement
- Sort output in descending and ascending order

Usage of Single-Row Functions to Customize Output

- Describe the differences between single row and multiple row functions
- Manipulate strings with character function in the SELECT and WHERE clauses
- Manipulate numbers with the ROUND, TRUNC and MOD functions
- Perform arithmetic with date data
- Manipulate dates with the DATE functions

Invoke Conversion Functions and Conditional Expressions

- Describe implicit and explicit data type conversion

- Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions

- Nest multiple functions

- Apply the NVL, NULLIF, and COALESCE functions to data

- Use conditional IF THEN ELSE logic in a SELECT statement

Aggregate Data Using the Group Functions

- Use the aggregation functions in SELECT statements to produce meaningful reports
- Divide the data in groups by using the GROUP BY clause
- Exclude groups of date by using the HAVING clause

Display Data from Multiple Tables Using Joins

- Write SELECT statements to access data from more than one table
- View data that generally does not meet a join condition by using outer joins
- Join a table by using a self join

Use Sub-queries to Solve Queries

- Describe the types of problem that sub-queries can solve
- Define sub-queries
- List the types of sub-queries
- Write single-row and multiple-row sub-queries

The SET Operators

- Describe the SET operators
- Use a SET operator to combine multiple queries into a single query
- Control the order of rows returned

Data Manipulation Statements

- Describe each DML statement
- Insert rows into a table
- Change rows in a table by the UPDATE statement
- Delete rows from a table with the DELETE statement
- Save and discard changes with the COMMIT and ROLLBACK statements
- Explain read consistency

Use of DDL Statements to Create and Manage Tables

- Categorize the main database objects
- Review the table structure
- List the data types available for columns
- Create a simple table
- Decipher how constraints can be created at table creation
- Describe how schema objects work

Other Schema Objects

- Create a simple and complex view
- Retrieve data from views
- Create, maintain and use sequences
- Create and maintain indexes
- Create private and public synonyms

Management of Schema Objects

- Add, Modify and Drop a Column
- Add, Drop and Defer a Constraint
- How to enable and disable a Constraint?
- Create and Remove Indexes
- Create a Function-Based Index
- Perform Flashback Operations

Data Time Operations

- Time Zones
- CURRENT_DATE, CURRENT_TIMESTAMP, and LOCALTIMESTAMP
- Compare Date and Time in a Session's Time Zone
- DBTIMEZONE and SESSIONTIMEZONE
- Difference between DATE and TIMESTAMP INTERVAL Data Types
- EXTRACT, TZ_OFFSET and FROM_TZ
- Invoke TO_TIMESTAMP, TO_YMINTERVAL and TO_DSINTERVAL

Retrieve Data Using Sub-queries

- Multiple-Column Sub queries
- Pair wise and Non-pair wise Comparison
- Scalar Sub query Expressions
- Solve problems with Correlated Sub queries

- Update and Delete Rows Using Correlated Sub queries
- The EXISTS and NOT EXISTS operators
- Invoke the WITH clause
- The Recursive WITH clause

Build in Function (Regular Expressions)

- Use the Regular Expressions Functions and Conditions in SQL
- Use Meta Characters with Regular Expressions
- Perform a Basic Search using the REGEXP_LIKE function
- Find patterns using the REGEXP_INSTR function
- Extract Substrings using the REGEXP_SUBSTR function
- Replace Patterns Using the REGEXP_REPLACE function
- Usage of Sub-Expressions with Regular Expression Support
- Implement the REGEXP_COUNT

Introduction to PL/SQL

- PL/SQL Overview
- Benefits of PL/SQL Subprograms
- Overview of the Types of PL/SQL blocks
- Create a Simple Anonymous Block
- Generate Output from a PL/SQL Block

PL/SQL Identifiers

- List the different Types of Identifiers in a PL/SQL subprogram
- Usage of the Declarative Section to define Identifiers
- Use variables to store data
- Identify Scalar Data Types
- The %TYPE Attribute
- What are Bind Variables?
- Sequences in PL/SQL Expressions

Control Structures

- Conditional processing Using IF Statements
- Conditional processing Using CASE Statements
- Use simple Loop Statement
- Use While Loop Statement
- Use For Loop Statement
- Describe the Continue Statement

Cursors

- What are Explicit Cursors?
- Declare the Cursor
- Open the Cursor
- Fetch data from the Cursor
- Close the Cursor

Exception Handling

- Understand Exceptions
- Handle Exceptions with PL/SQL

Stored Procedures and Functions Create Stored Procedures Create Stored Functions

Assessments

•Objective Assessments

-- Syntactical based

-- Scenario based

Note: At least 2 objective based assessments in each module

•Hands On – Practical Assessments

-- Scenario based

Note: At least 2 Hands on assessments in each module

Assignments

•Hands On – Practical Assignments

Note: At least 4 Hands on assignments in each module

Tasks – Home Work

•Regular tasks on each module

Note: Tasks are focused more to improve self learning

Resume Support & Interview Preparation

•Work on one or two mini projects

•Discuss and convert the current working project into Oracle

SQL project to add in resume & to explain Oracle SQL

experience in interviews