

<b>Course Code</b>	: C030	<b>Registration Fee</b>	: ₹ 200
<b>Course Name</b>	: Certificate in Oracle	<b>Exam Fee</b>	: ₹ 300
<b>Duration</b>	: 3 Months	<b>Fee</b>	: ₹ 10000
		<b>Total</b>	: ₹ 10500

## SQL

SNO	Topic	Content
1.	Writing Basic SQL SELECT Statements	Basic SELECT Statement, Selecting All Columns, Selecting Specific Columns, Writing SQL Statements, Column Heading Defaults, Arithmetic Expressions, Using Arithmetic Operators, Operator Precedence, Using Parentheses, Defining a Null Value, Null Values in Arithmetic Expressions, Defining a Column Alias, Using Column Aliases, Concatenation Operator, Using the Concatenation Operator, Literal Character Strings, Using Literal Character Strings, Duplicate Rows, Eliminating Duplicate Rows
2.	Restricting and Sorting Data	Limiting Rows Using a Selection, Limiting the Rows Selected, Using the WHERE Clause, Character Strings and Dates, Comparison Conditions, Using Comparison Conditions, Other Comparison Conditions Using the BETWEEN Condition, Using the IN Condition, Using the LIKE Condition, Using the NULL Conditions, Logical Conditions, Using the AND Operator, Using the OR Operator, Using the NOT Operator, Rules of Precedence, ORDER BY Clause, Sorting in Descending Order, Sorting by Column Alias, Sorting by Multiple Columns
3.	Single-Row Functions	SQL Function, Two Types of SQL Functions, Single-Row Functions, Single-Row Functions, Character Functions, Character Functions, Case Manipulation Functions, Using Case Manipulation Functions, Character-Manipulation Functions, Using the Character-Manipulation Functions, Number Functions Using the ROUND Function, Using the TRUNC Function, Using the MOD Function, Working with Dates, Arithmetic with Dates, Using Arithmetic Operators with Dates, Date Functions, Using Date Functions. Practice 3, Part One: Conversion Functions, Implicit Data Type Conversion, Explicit Data Type Conversion, Using the TO_CHAR Function with Dates, Elements of the Date Format Model, Using the TO_CHAR Function with Dates, Using the TO_CHAR Function with Numbers, Using the TO_NUMBER and TO_DATE Functions, RR Date Format, Example of RR Date Format, Nesting Functions, General Functions NVL Function, Using the NVL Function, Using the NVL2 Function, Using the NULLIF Function Using the COALESCE Function, Conditional Expressions, The CASE Expression, Using the CASE Expression, The DECODE Function, Using the DECODE Function
4.	Displaying Data from Multiple Tables	Obtaining Data from Multiple Tables, Cartesian Products, Generating a Cartesian Product, Types of Joins, Joining Tables Using Oracle Syntax, What is an Equijoin?, Retrieving Records with Equijoins

Additional Search Conditions Using the AND Operator, Qualifying Ambiguous Column Names, Using Table Aliases, Joining More than Two Tables, Non-Equijoins, Retrieving Records with Non-Equijoins  
 Outer Joins Outer Joins Syntax, Using Outer Joins, Self Joins, Joining a Table to Itself, Joining Tables Using SQL: 1999 Syntax, Creating Cross Joins, Creating Natural Joins ,Retrieving Records with Natural Joins, Creating Joins with the USING Clause, Retrieving Records with the USING Clause, reating Joins with the ON Clause, Retrieving Records with the ON Clause, Creating Three-Way Joins with the ON Clause, INNER Versus OUTER Joins, LEFT OUTER JOIN, RIGHT OUTER JOIN, FULL OUTER JOIN, Additional Conditions

5. Aggregating Data Using Group Functions	<p>What Are Group Functions? Types of Group Functions, Group Functions Syntax, Using the AVG and SUM Functions, Using the MIN and MAX Functions, Using the COUNT Function, Using the DISTINCT Keyword, Group Functions and Null Values, Using the NVL Function with Group Functions          Creating Groups of Data, Creating Groups of Data: The GROUP BY Clause Syntax, Using the GROUP BY Clause, Grouping by More Than One Column, Using the GROUP BY Clause on Multiple Columns          Illegal Queries Using Group Functions, Excluding Group Results, Excluding Group Results: The HAVING Clause, Using the HAVING Clause, Nesting Group Functions</p>
6. Subqueries	<p>Objectives, Using a Subquery to Solve a Problem, Subquery Syntax, Using a Subquery, Guidelines for Using Subqueries, Types of Subqueries, Single-Row Subqueries, Executing Single-Row Subqueries, Using Group Functions in a Subquery, The HAVING Clause with Subqueries, What is Wrong with this Statement?, Will this Statement Return Rows?, Multiple-Row Subqueries, Using the ANY Operator in Multiple-Row Subqueries, Using the ALL Operator in Multiple-Row Subqueries, Null Values in a Subquery</p>
7. Manipulating Data	<p>Data Manipulation Language, Adding a New Row to a Table, The INSERT Statement Syntax 8-5, Inserting New Rows, Inserting Rows with Null Values, Inserting Special Values, Inserting Specific Date Values, Creating a Script, Copying Rows from Another Table, Changing Data in a Table, The UPDATE Statement Syntax, Updating Rows in a Table, Updating Two Columns with a Subquery, Updating Rows Based on Another Table, Updating Rows: Integrity Constraint Error, Removing a Row from a Table          The DELETE Statement, Deleting Rows from a Table, Deleting Rows Based on Another Table,          Deleting Rows: Integrity Constraint Error, Using a Subquery in an INSERT Statement, Using the WITH CHECK OPTION Keyword on DML Statements, Overview of the Explicit Default Feature, Using Explicit Default Values, The MERGE Statement, The MERGE Statement Syntax, Merging Rows          Database Transactions, Advantages of COMMIT and ROLLBACK Statements, Controlling Transactions          Rolling Back Changes to a Marker, Implicit Transaction Processing, State of the Data Before COMMIT or ROLLBACK, State of the Data after COMMIT, Committing Data, State of the Data After ROLLBACK, Statement-Level Rollback, Read Consistency, Implementation of Read Consistency Locking ,, Implicit Locking, Read Consistency Example</p>
8. Creating and Managing Tables	<p>Database Objects, Naming Rules, The CREATE TABLE Statement, Referencing Another User?s Tables          The DEFAULT Option, Creating Tables, Tables in the Oracle Database,</p>

Querying the Data Dictionary 9-10, Data Types, DateTime Data Types, TIMESTAMP WITH TIME ZONE Data Type, TIMESTAMP WITH LOCAL TIME Data Type, INTERVAL YEAR TO MONTH Data Type, INTERVAL DAY TO SECOND Data Type, Creating a Table by Using a Subquery Syntax, Creating a Table by Using a Subquery, The ALTER TABLE Statement, Adding a Column, Modifying a Column, Dropping a Column  
 The SET UNUSED Option, Dropping a Table, Changing the Name of an Object, Truncating a Table, Adding Comments to a Table

9.	Including Constraints	<p>What are Constraints?, Constraint Guidelines, Defining Constraints, The NOT NULL Constraint,          The UNIQUE Constraint, The PRIMARY KEY Constraint, The FOREIGN KEY Constraint, FOREIGN KEY Constraint Keywords, The CHECK Constraint, Adding a Constraint Syntax, Adding a Constraint          Dropping a Constraint, Disabling Constraints, Enabling Constraints, Cascading Constraints, Viewing Constraints, Viewing the Columns Associated with Constraints</p>
10.	Creating Views	<p>Database Objects, What is a View?, Why use Views?, Simple Views and Complex Views, Creating a View, Retrieving Data from a View, Querying a View, Modifying a View, Creating a Complex View          Rules for Performing DML Operations on a View, Using the WITH CHECK OPTION Clause, Denying DML Operations, Removing a View, Inline Views, Top-N Analysis, Performing Top-N Analysis, Example of Top-N Analysis</p>
11.	Other Database Objects	<p>Database Objects, What is a Sequence?, The CREATE SEQUENCE Statement Syntax, Creating a Sequence, Confirming Sequences, NEXTVAL and CURRVAL Pseudocolumns, Using a Sequence          Modifying a Sequence, Guidelines for Modifying a Sequence, Removing a Sequence, What is an Index?          How Are Indexes Created?, Creating an Index, When to Create an Index, When Not to Create an Index          Confirming Indexes, Function-Based Indexes, Removing an Index, Creating and Removing Synonyms</p>
12.	Controlling User Access	<p>Objectives, Controlling User Access, Privileges, System Privileges, Creating Users, User System Privileges, Granting System Privileges, What is a Role?, Creating and Granting Privileges to a Role          Changing Your Password, Object Privileges, Granting Object Privileges, Using the WITH GRANT OPTION and PUBLIC Keywords, Confirming Privileges Granted, How to Revoke Object Privileges          Revoking Object Privileges, Database Links</p>

## SQL Workshop

SNO	Topic	Content
1.	Using SET Operators	<p>The SET Operators, Tables Used in This Lesson, The UNION Operator, Using the UNION Operator,          The UNION ALL Operator, Using the UNION ALL Operator, The INTERSECT Operator, Using the INTERSECT Operator, The MINUS Operator, SET Operator Guidelines, The Oracle Server and SET Operators, Matching the SELECT Statements, Controlling the Order of Rows</p>
2.	Enhancements to the GROUP BY	<p>Review of Group Functions, Review of the GROUP BY Clause, Review of the HAVING Clause, GROUP BY with ROLLUP and CUBE Operators, ROLLUP</p>

Clause	Operator, ROLLUP Operator Example, CUBE Operator, CUBE Operator: Example, GROUPING Function, GROUPING Function: Example GROUPING SETS, GROUPING SETS: Example, Composite Columns, Composite Columns: Example Concatenated Groupings, Concatenated Groupings Example
3. Advanced Subqueries	What Is a Subquery?, Subqueries, Using a Subquery, Multiple-Column Subqueries, Column Comparisons Pairwise Comparison Subquery, Nonpairwise Comparison Subquery, Using a Subquery in the FROM Clause, Scalar Subquery Expressions, Scalar Subqueries: Examples, Correlated Subqueries, Using Correlated Subqueries, Using the EXISTS Operator, Using the NOT EXISTS Operator, Correlated UPDATE, Correlated DELETE, The WITH Clause, WITH Clause: Example
4. Hierarchical Retrieval	Sample Data from the EMPLOYEES Table, Natural Tree Structure, Hierarchical Queries, Walking the Tree, Walking the Tree: From the Bottom Up, Walking the Tree: From the Top Down, Ranking Rows with the LEVEL Pseudocolumn, Formatting Hierarchical Reports Using LEVEL and LPAD, Pruning Branches
5. Extensions to DML and DDL Statements	Review of the INSERT Statement, Review of the UPDATE Statement, Overview of Multitable INSERT Statements, Overview of Multitable INSERT Statements, Types of Multitable INSERT Statements, Multitable INSERT Statements, Unconditional INSERT ALL, Conditional INSERT ALL, Conditional FIRST INSERT, Pivoting INSERT, External Tables, Creating an External Table, Example of Creating an External Table, Querying External Tables, CREATE INDEX with CREATE TABLE Statement

## PISQL

SNO	Topic	Content
1.	Introduction to PL/SQL	What Is PL/SQL?, The Origins of PL/SQL, About PL/SQL Versions, Resources for PL/SQL Developers
2.	Creating and Running PL/SQL Code	SQL*Plus, Performing Essential PL/SQL Tasks, Calling PL/SQL from Other Languages, Language Fundamentals, PL/SQL Block Structure, The PL/SQL Character Set, Identifiers, Literals, The Semicolon Delimiter, Comments, The PRAGMA Keyword, Labels
3.	PL/SQL Program Structure	Conditional and Sequential Control, IF Statements, CASE Statements and Expressions, The GOTO Statement, The NULL Statement, Iterative Processing with Loops
4.	Loop Basics	The Simple Loop, The WHILE Loop, The Numeric FOR Loop, The Cursor FOR Loop, Loop Labels, Tips for Iterative Processing
5.	Exception Handlers	Exception-Handling Concepts and Terminology, Defining Exceptions, Raising Exceptions, Handling Exceptions, Building an Effective Error Management Architecture, Making the Most of PL/SQL Error Management
6.	PL/SQL Program Data	Working with Program Data, Naming Your Program Data, Overview of PL/SQL Datatypes, Declaring Program Data, Programmer-Defined Subtypes, Conversion Between Datatypes
7.	Strings	String Datatypes, Working with Strings, String Function Quick Reference.
8.	Numbers	Numeric Datatypes, Number Conversions, Numeric Functions
9.	Records	Records in PL/SQL
10.	Collections	Collections Overview, Collection Methods (Built-Ins), Working with

		Collections, Nested Table Multiset Operations, Maintaining Schema-Level Collections
11.	Miscellaneous Datatypes	The BOOLEAN Datatype, The RAW Datatype, The UROWID and ROWID Datatypes, The LOB Datatypes, Working with LOBs, Predefined Object Types
12.	SQL in PL/SQL	DML and Transaction Management, DML in PL/SQL, Bulk DML with the FORALL Statement, Transaction Management, Autonomous Transactions
13.	Data Retrieval	Cursor Basics, Working with Implicit Cursors, Working with Explicit Cursors, BULK COLLECT, SELECT ... FOR UPDATE, Cursor Variables and REF CURSORS, Cursor Expressions
14.	Procedures, Functions, and Parameters	Procedures, Functions, Parameters, Local Modules, Module Overloading, Forward Declarations, Advanced Topics, Go Forth and Modularize!
15.	Packages	Why Packages?, Rules for Building Packages, Rules for Calling Packaged Elements, Working with Package Data, When to Use Packages, Packages and Object Types
16.	Triggers	DML Triggers, DDL Triggers, Database Event Triggers, INSTEAD OF Triggers, AFTER SUSPEND Triggers, Maintaining Triggers
17.	Managing PL/SQL Code	Managing Code in the Database, Using Native Compilation, Using the Optimizing Compiler and Compile-Time Warnings, Conditional Compilation, Testing PL/SQL Programs, Debugging PL/SQL Programs, Tuning PL/SQL Programs, Protecting Stored Code
18.	I/O and PL/SQL	Displaying Information, Reading and Writing Files, Sending Email, Working with Web-Based Data (HTTP), Other Types of I/O Available in PL/SQL

## Oracle Forms

SNO	Topic	Content
1.	Oracle Forms Developer 10g: Build Internet Applications	Introducing Oracle Forms Developer and Forms Services, Grid Computing, Oracle 10g Products Oracle Application Server 10g Architecture, Benefits and Components of Oracle Developer Suite 10g, Running a Forms Developer Application, Working in the Forms Developer Environment, Creating Forms Modules, Working with Data Blocks and Frames, Working with Input Items, Working with Non Input Items, Working with Windows and Canvases, Producing Triggers, Debugging Triggers, Adding Functionality to Items, Run-Time Messages and Alerts, Query Triggers, Validation, Navigation, Transaction Processing, Sharing Objects and Code, Using WebUtil to Interact with the Client, Introducing Multiple Form Applications

## Oracle Reports

<b>SNO</b>	<b>Topic</b>	<b>Content</b>
1.	Oracle Reports Developer 10g: Build Reports	Introduction to Oracle Reports Developer, Business Intelligence, Enterprise Reporting, Oracle Reports, Developer, Oracle Database 10g, Oracle Developer Suite 10g, Oracle Application Server 10g, OracleAS Reports Services, OracleAS Reports Services Architecture for the Web, Designing and Running Reports Exploring Oracle Reports Developer, Creating a Paper Report, Enhancing a Basic Paper Report, Managing Report Templates, Creating a Web Report, Enhancing Reports Using the Data Model: Queries and Groups, Enhancing Reports Using the Data Model: Data Sources, Enhancing Reports Using the Data Model: Creating Columns, Enhancing Reports Using the Paper Layout, Controlling the Paper Layout: Common Properties, Controlling the Paper Layout: Specific Properties, Web Reporting, Extending Functionality Using XML, Creating and Using Report Parameters, Embedding a Graph in a Report Enhancing Matrix Reports, Coding PL/SQL Triggers, Extending Functionality Using the SRW Package Maximizing Performance Using, OracleAS Reports Services, Building Reports: Efficiency Guidelines Working with SQL Worksheet, Using SQL Developer