



# **CODERS ACADEMY**

Training | Internships | Projects | Product Development

## **Dip in Data Analytics**

**Course Contents**

**Proposed Hours - 90-100**

# Advanced Excel

Advanced Excel course features functions of Microsoft Excel tool which helps students to perform complex and large calculations, data processing on the huge amount of data, performing data analysis, better representation of data. This will help them in their professional carrier. Advanced Excel is also a plus point their resume profile.

## **Basic Microsoft Excel**

Clipboard, Fonts, Alignments,  
Numbers, Styles, Editing, Tables,  
Charts, Filters, Links, Symbols,  
Page setup, Basic Formulas,  
Work book views, Calculations.

### **Chapter 1:**

Using Formatting and Functions  
Applying Formatting to Numbers  
Creating Custom Number Formats  
Applying Conditional Formats  
Absolute and Relative References  
Naming a Range  
Using Lookup Functions  
IF, AND, OR Functions

### **Chapter 2:**

Using Formulas  
SUM, SUMIF, SUMIFS  
COUNT, COUNTIF, COUNTIFS  
VLOOKUP, HLOOKUP  
EDATE, EOMONTH, TRIM  
CHAR, RANDBETWEEN, RANK  
and many more

### **Chapter 3:**

Working with Data  
What is a List?

Validating Data Entries

Sorting Data

Subtotaling and Outlining Data

Extracting Data with Filters

Using Advanced Filters

### **Chapter 4:**

Analyzing Data  
Using Pivot Table Add info about Slicers  
Managing Pivot Table Reports  
Creating Pivot Chart Reports  
Using Charts and Trendlines  
Working with Scenarios

### **Chapter 5:**

Sharing Workbooks  
Creating a Shared Workbooks  
Consolidating Data  
Protecting Columns  
Protecting Worksheets  
Protecting Worksheet Content  
Protecting Cells  
Assigning a Password  
Tracking Changes  
Adding Comments  
Preparing a Workbook

# SQL

## Introduction

List the Oracle Database 10g Main Features An Overview of: components, internet platform, apps server and developer suite Describe Relational and Object Relational Database Designs Review the System Development Life Cycle Define the term Data Models Describe different means of Sorting Data Show how Multiple Tables can be related Describe how SQL Communicates to the Database

## Writing SQL SELECT Statements

Define projection, selection, and join terminology Review the basic SQL SELECT statement syntax Select all columns using a wildcard notation from a table State simple rules and guidelines for writing SQL statements Write a query containing the arithmetic operators Create a character expression with the concatenation operator Using the Oracle SQL Developer Environment

## Restricting and Sorting Data

Limit rows using a selection Using the WHERE clause to retrieve specific rows Using the comparison conditions in the WHERE clause Use the LIKE condition to compare literal values List the logical conditions AND, OR, NOT Describe the rules of precedence for the conditions Sort rows with the ORDER BY clause Use ampersand substitution to restrict and sort output at run time

## Using Single-Row Functions to Customize Output

Show the differences between single row and multiple row SQL functions Categorize the character functions into case manipulation and character manipulation types Use the character manipulation functions in the SELECT and WHERE clauses Explain and use the DATE and numeric functions Use the SYSDATE function to retrieve the current date in the default format Introduce the DUAL table as a means to view function results List the rules for applying the arithmetic operators on dates Use the arithmetic operators with dates in the SELECT clause

## Reporting Aggregated Data Using the Group Functions

Describe and categorize the group functions Use the group functions Utilize the DISTINCT keyword with the group functions Describe how nulls are handled with the group functions Create groups of data with the GROUP BY clause Group data by more than one column Avoid illegal queries with the group functions Exclude groups of data with the HAVING clause

## Displaying Data from Multiple Tables

Identify Types of Joins Retrieve Records with Natural Joins Use Table Aliases to write shorter code and explicitly identify columns from multiple tables Create a Join with the USING clause to identify specific columns between tables Use the ON clause to specify arbitrary conditions or specify columns to Join Create a Three-way join with the ON clause to retrieve information from 3 tables List the Types of Outer Joins LEFT, RIGHT, and FULL Generating a Cartesian Product

## Using Sub queries to Solve Queries

List the syntax for sub queries in a SELECT statements WHERE clause List the guidelines for using sub queries Describe the types of sub queries Execute single row sub queries and use the group functions in a sub query Identify illegal statements with sub queries Execute multiple row sub queries Analyze how the ANY and ALL operators work in multiple row sub queries

## Using the SET Operators

Use the UNION operator to return all rows from multiple tables and eliminate any duplicate rows Use the UNION ALL operator to return all rows from multiple tables Describe the INTERSECT operator Use the INTERSECT operator Explain the MINUS operator Use the MINUS operator List the SET operator guidelines Order results when using the UNION operator

## Manipulating Data

Write INSERT statements to add rows to a table Copy rows from another table Create UPDATE statements to change data in a table Generate DELETE statements to remove rows from a table Use a script to manipulate data Save and discard changes to a table through transaction processing Show how read consistency works Describe the TRUNCATE statement

# SQL

## Using DDL Statements to Create and Manage Tables

List the main database objects and describe the naming rules for database objects Introduce the schema concept Display the basic syntax for creating a table and show the DEFAULT option Explain the different types of constraints Show resulting exceptions when constraints are violated with DML statements Create a table with a sub query Describe the ALTER TABLE functionality Remove a table with the DROP statement and Rename a table

## Creating Other Schema Objects

Categorize simple and complex views and compare them Create a view Retrieve data from a view Explain a read-only view List the rules for performing DML on complex views Create a sequence List the basic rules for when to create and not create an index Create a synonym

## Managing Objects with Data Dictionary Views

Describe the structure of each of the dictionary views List the purpose of each of the dictionary views Write queries that retrieve information from the dictionary views on the schema objects Use the COMMENT command to document objects

## Controlling User Access

Controlling User Access System versus Objects Privileges Using Roles to define user groups Changing Your Password Granting Object Privileges Confirming Privileges Granted Revoking Object Privileges Using Database Links

## Manage Schema Objects

Using the ALTER TABLE statement Adding a Column Modifying a Column Dropping a Column, Set Column UNUSED Adding, Enabling and Disabling Constraints Creating Function-Based Indexes Performing FLASHBACK operations External Tables

## Manipulating Large Data Sets

Using the MERGE Statement Performing DML with Sub queries Performing DML with a RETURNING Clause Overview of Multi-table INSERT Statements Tracking Changes in DML

## Generating Reports by Grouping Related Data

Overview of GROUP BY Clause Overview of Having Clause Aggregating data with ROLLUP and CUBE Operators Determine subtotal groups using GROUPING Functions Compute multiple groupings with GROUPING SETS Define levels of aggregation with Composite Columns Create combinations with Concatenated Groupings

## Managing Data in Different Time Zones

Time Zones Using date and time functions Identifying TIMESTAMP Data Types Differentiating between DATE and TIMESTAMP Performing Conversion Operations

## Searching Data Using Advanced Sub queries

Sub query Overview Using a Sub query Comparing several columns using Multiple-Column Sub queries Defining a Data source Using a Sub query in the FROM Clause Returning one Value using Scalar Sub query Expressions Performing ROW by-row processing with Correlated Sub queries Reusing query blocks using the WITH Clause

## Hierarchical Retrieval

Sample Data from the EMPLOYEES Table The Tree Structure of Employee data Hierarchical Queries Ranking Rows with LEVEL Formatting Hierarchical Reports Using LEVEL and LPAD Pruning Branches with the WHERE and CONNECT BY clauses

## Regular Expression Support

Regular Expression Support Overview

# Power BI Training Syllabus

## **Module 1: Introduction to Power BI**

- Get Started with Power BI
- Overview: Power BI concepts
- Sign up for Power BI
- Overview: Power BI data sources
- Connect to a SaaS solution
- Upload a local CSV file
- Connecting to Excel data
- Connect to a sample
- Create a Report with Visualizations
- Explore the Power BI portal

## **Module 2: Viz and Tiles (Duration-5hrs)**

- Overview: Visualizations
- Using visualizations
- Create a new report
- Create and arrange visualizations
- Format a visualization
- Create chart visualizations
- Use text, map, and gauge visualizations and save a report
- Use a slicer to filter visualizations
- Sort, copy, and paste visualizations
- Download and use a custom visual from the gallery

## **Module 3: Reports and Dashboards**

- Modify and Print a Report
- Rename and delete report pages
- Add a filter to a page or report
- Set visualization interactions
- Print a report page
- Send a report to PowerPoint
- Create a Dashboard
- Create and manage dashboards
- Pin a report tile to a dashboard
- Pin a live report page to a dashboard
- Pin a tile from another dashboard
- Pin an Excel element to a dashboard
- Manage pinned elements in Excel
- Add a tile to a dashboard
- Build a dashboard with Quick Insights
- Set a Featured (default) dashboard

- Ask Questions about Your Data
- Ask a question with Power BI Q&A
- Tweak your dataset for Q&A
- Enable Cortana for Power BI

## **Module 4: Publishing Workbooks and Workspace**

- Share Data with Colleagues and Others
- Publish a report to the web
- Manage published reports
- Share a dashboard
- Create an app workspace and add users
- Use an app workspace
- Publish an app
- Create a QR code to share a tile
- Embed a report in SharePoint Online

## **Module 5: Other Power BI Components and Table Relationship**

- Use Power BI Mobile Apps
- Get Power BI for mobile
- View reports and dashboards in the iPad app
- Use workspaces in the mobile app
- Sharing from Power BI Mobile
- Use Power BI Desktop
- Install and launch Power BI Desktop
- Get data
- Reduce data
- Transform data
- Relate tables
- Get Power BI Desktop data with the Power BI service
- Export a report from Power BI service to Desktop

## **Module 6: DAX functions**

- New Dax functions
- Date and time functions
- Time intelligence functions
- Filter functions
- Information functions
- Logical functions
- Math & trig functions
- Parent and child functions
- Text functions

# Core Python

## **Introduction**

History  
Features  
Setting up path  
Working with Python  
Basic Syntax  
Variable and Data Types  
Operator

## **Conditional Statements**

If  
If- else  
Nested if-else

## **Looping**

For  
While  
Nested loops

## **Control Statements**

Break  
Continue  
Pass

## **String Manipulation**

Accessing Strings  
Basic Operations  
String slices  
Function and Methods

## **Lists**

Introduction  
Accessing list  
Operations  
Working with lists  
Function and Methods

## **Tuple**

Introduction  
Accessing tuples  
Operations

Working  
Functions and Methods

## **Dictionaries**

Introduction  
Accessing values in dictionaries  
Working with dictionaries  
Properties  
Functions

## **Functions**

Defining a function  
Calling a function  
Types of functions  
Function Arguments  
Anonymous functions  
Global and local variables

## **Modules**

Importing module  
Math module  
Random module  
Packages  
Composition

## **Input-Output**

Printing on screen  
Reading data from keyboard  
Opening and closing file  
Reading and writing files  
Functions

## **Exception Handling**

Exception  
Exception Handling  
Except clause  
Try ? finally clause  
User Defined Exceptions



# Distance Education Programs

**BCOM | BA | BBA | BCA | MBA | MCA | MCOM | MA**

We have tied with many UGC recognized university to serve our students who may have discontinued or looking to add wings of education to their career through distance education. We have selected a few universities which are strong in their education system and provide the best platforms to students for their further studies.

Online Study Materials


Online Exams | Online Training

Online Assignments

Relationship Manager

Easy Exam Patterns

Head Office:

 #5, 3rd Floor, B. Nanjaiah Complex, Kathriguppe Ring Road,  
BSK 3rd Stage, Bengaluru - 560085

■ **70226 17453 | 96869 16333**



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