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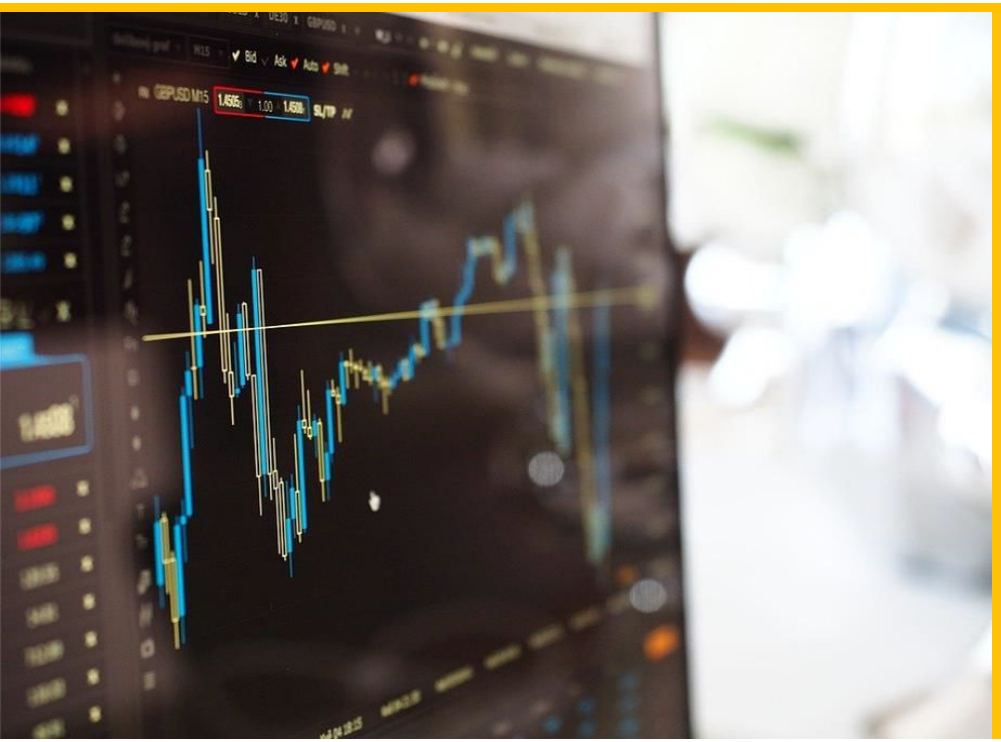

PG Certification Program in DATA ANALYTICS

- Practical Training
- Training From Expert Trainer
- Interview Preparation
- Complete Placement Assistance

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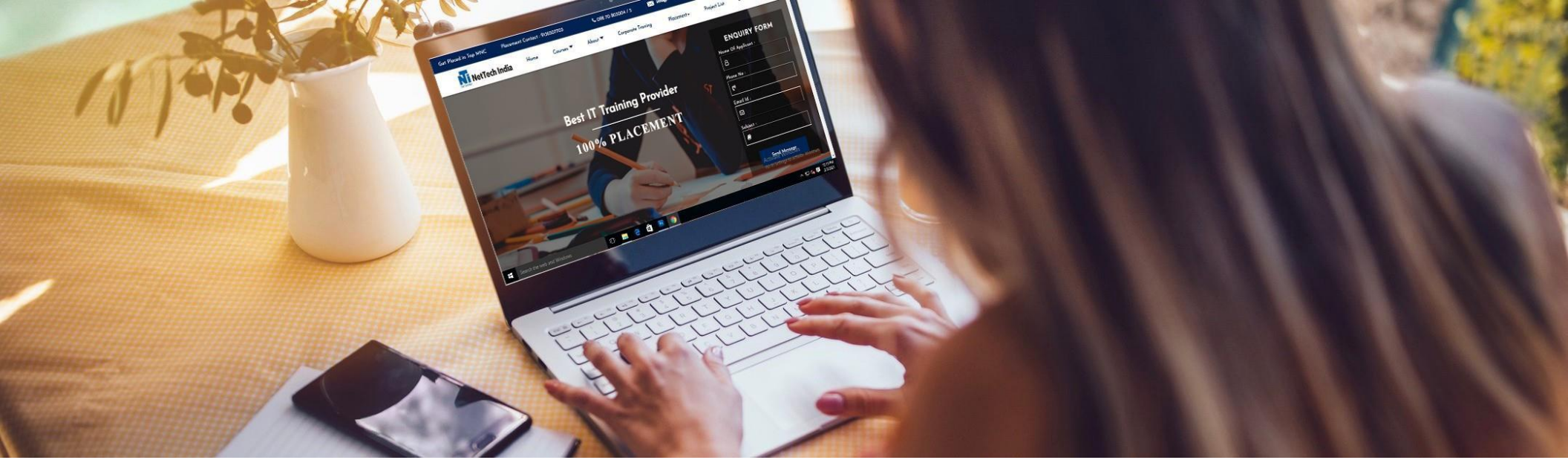
CERTIFICATIONS OPTIONS AVAILABLE



ABOUT US

Infobyte Computers offers a high-quality learning experience in the field of IT training to train students on brand new technologies and train them to deliver the desired results with commercially relevant and re-organized technical skills.

The probability of achieving your dream job will keep on increasing day by day once you complete a course in **Infobyte Computers.** We also focus on improving soft skills in terms of communication, leadership, teamwork, external appearance, and attitude which helps everyone to be professional in all the aspects of their career.

25%
Theory

75%
Practicals

BENEFITS OF DATA ANALYTICS

- Career Growth - Higher Pay & Position
- Encourages professional Development
- Enriches self-image and Reputation
- Enhances professional Credibility.
- Abundant Job Opportunities
- Used In Many Industries
- Global Recognition
- Secure and Flexible
- 50+ Case Studies
- 50+ Projects

TOPICS COVERED

- PYTHON
- SQL
- ADVANCED EXCEL
- POWER BI
- TABLEAU
- MACHINE LEARNING
- ARTIFICIAL INTELLIGENCE

PYTHON CONTENT

1. **Introduction to Python**
   - History of Python
   - Why to learn python
   - How is Python Different?
   - Installing Python

2. **Python Interpreter**
   - Using the interpreter
   - Integrated Development Environments (IDE) How to run Python programs?

3. **Basics of Python**
   - Variable
   - Keywords
   - Statements & Comments
   - Indentation
   - Data types

- Static Typing vs Dynamic Typing
- Input and output
- Operators Arithmetic operator Relational Operator Assignment Operator
- Logical operator Bitwise operator Membership Operator
- Identity Operator

4. Control Flow

- If statement
- If - else
- If – elif -else
- Nested if-else
- while loop
- for – in loop
- Nested for loop
- Nester while loop
- Loop with else
- Pass statement
- Break and continue

5. Functions

- Basics Defining function
- Function call Return statement
- Function with parameter and without parameter
- Function parameters Call by value or call by reference local and global variable
- Recursion, Anonymous (lambda) function
- User define functions
- Examples

6. Modules

- Defining module
- How to create a module
- Importing module
- Dir()
- Module search path
- Reloading a module
- Sys module
- Os module
- Namespace

7. **Package**
   - Defining package
   - How to create the package
   - Importing package
   - Installing third party packages

8. **Numeric Types**
   - Numeric type basics
   - Hexadecimal, Octal, and Binary Notation
   - Complex Numbers
   - Typecasting Numeric Functions
   - Random number generation(Using Random Modules)

9. **String**
   - Defining a string
   - Different ways to create string Accessing elements of the string
   - Escape sequence
   - Raw string String methods
   - String formatting Expressions

10. List

- Defining a list
- Creating list
- Accessing list elements of list
- Deleting list
- List methods
- Functions used with list
- List comprehension
- Implementation of stack and queue using list
- Use of Zip ()
- Matrix operations using list

11. Tuple

- Defining a tuple
- Creating a tuple
- Accessing elements of the tuple
- What is Immutability
- List vs tuples
- Tuple Methods Functions used with tuple
- Advantage of Tuple

12. Dictionary

- Defining a dictionary
- Creating a dictionary
- Accessing elements of the dictionary
- Deleting a dictionary
- Dictionary methods
- Dictionary Comprehension

13. Set

- Defining a set
- Creating set
- Set operations
- Set methods
- Set comprehension

14. Files

- Defining a file
- Types of file operations
- Opening a File
- Closing file
- File modes

- File attributes
- Writing to file
- Reading from file
- Appending to file
- File positions
- Binary file
- Pickle module

15. Exception Handling

- Defining an exception?
- Default exception handler
- Exception handling techniques

a. Detecting Exception (try)
b. Catching exceptions (catch)
c. Catching multiple exceptions
d. Raising exception (raise) Finally block

- User-defined exceptions

16. Object-Oriented Programming

OOPS concepts Defining

Class Creating object

- Method vs function Calling methods
- Instance attribute vs class attribute
- Instance method vs class method
- Private attribute and method Static Method
- Method Overloading Constructor
- Method Overriding Constructor
- List of objects Inheritance
- Examples

17. Multi-Threading

- Process-based multitasking
- Thread based multitasking
- Creating a Thread without using class
- Creating thread using class
- Sleep() method
- Join() method Getting and setting the name of the Thread
  Logging module
- Synchronization
- Lock concept
- Object-Oriented

- Inter thread communication
- Is_Alive() method
- Active_count() method
- Enumerate() method
- Current_thread() method
- Daemon Thread

18. GUI Programming with Tkinter

- Introduction to Tkinter
- Creating a window Tkinter widgets Label
- Button Entry Messagebox List
- Radio Button CheckButton Creating Frame
- Creating Menu Assignments on Tkinter
- Examples

19. Event Handling

- Defining an event
- Bind() method
- Mousse events
- Keyboard events
- Examples

20. Data Base Programming

- Introduction to MySQL.connector module, Connecting to the database by using MySQL, Creating a table by MySQL
- Performing SQL operations, Introduction to mysql, Installing mysql, Creating database using mysql
- Connecting MySQL database from python, Creating a table, Performing
- SQL operations
- Examples

21. Conversion of Python script to executable file

- Defining an executable file , Deploying the application

22. LIVE PROJECTS

- Create GUI and store data in the Database. (5-day session) Create a server-client program. (using TCP)

And Many More...

SQL CONTENT

Oracle SQL 12C :- Exam code:1Z0-061 Introduction to Oracle Database

- List the features of Oracle Database 12c
- 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
- Logon 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 SELECTstatements
- 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
- Learn the DESCRIBE command to display the table structure
- Understand Operator Precedence

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 SELECTstatement
- Sort output in descendingand ascendingorder

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 into groups by using the GROUP BY clause
- Exclude groups of data by using the HAVING clause

Display Data From Multiple Tables Using Joins

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

Use Subqueries 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

Control User Access

- Differentiate system privileges from object privileges
- Create Users
- Grant System Privileges
- Create and Grant Privileges to a Role
- Change Your Password
- Grant Object Privileges
- How to pass on privileges?
- Revoke Object Privileges

Management of Schema Object

- 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
- Create an External Table by Using ORACLE_LOADER and by Using

ORACLE_DATAPUMP

- Query External Tables

Manage Objects with Data Dictionary Views

- Explain the data dictionary
- Use the Dictionary Views
- USER_OBJECTS and ALL_OBJECTS Views
- Table and Column Information
- Query the dictionary views for constraint information
- Query the dictionary views for view, sequence, index, and synonym information
- Add a comment to a table

Manipulate Large Data Sets

- Use Subqueries to Manipulate Data
- Retrieve Data Using a Subquery as Source
- Insert Using a Subquery as a Target
- Usage of the WITH CHECK OPTION Keyword on DML Statements
- List the types of Multi-table INSERT Statements
- Use Multi-table INSERT Statements
- Merge rows in a table
- Track Changes in Data over a period of time

Retrieve Data Using Sub-queries

- Multiple-Column Subqueries
- airwise and No pairwise Comparison
- Scalar Subquery Expressions
- Solve problems with Correlated Subqueries
- Update and Delete Rows Using Correlated Subqueries
- The EXISTSand NOT EXISTSoperators
- Invoke the WITH clause
- The Recursive WITH clause

Regular Expression Support

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

And Many More...

ADVANCED EXCEL CONTENT

- Multiple Level Subtotal Reports
- Filtering Database & Sorting Data
- Securing & Protecting Worksheet
- Linking Multiple Sheets
- 3D Reference in Excel
- Sheet Referencing
- Dynamic Linking Word/Excel/Power point
- Function H lookup V lookup Lookup
- X Lookup Dynamic H lookup V lookup
- COUNTIF, SUMIF, SUMIFS
- What if-if-analysis
- Goal Seek
- Pivot Table & Pivot Charts Slicer
- Reporting

- Scenario Manager
- Dated if Functions
- Date Functions
- NESTED IF
- Consolidation of Data
- Data Validation
- Logical Function
- (IF, AND, OR, NOT)
- Macro: Definition & Concepts
- Record & Run Macro
- Store a Macro
- Intro to VBA
- Live Projects: Over 30 Projects

Performing complex calculations more effeciently

- Using Various Excel Functions and executing in Dynamic Projects
- Organizing and analyzing large volumes of data
- Creating MIS Report
- Designing and using templates
- Consolidating and Managing data from multiple workbooks
- Writing conditional Expression (using if)
- Using Logical Functions (AND,OR, NOT)
- Using Logical & Reference function (VLOOOKUP, HLOOKUP, XLOOKUP)
- Nested VLOOKUP with Exact Match
- VLOOKUP with Tables, Dynamic Ranges
- Nested VLOOKUP with Exact Match
- Using VLOOKUP to Consolidate Data from Multiple Sheets
- Advanced Formatting: Using Conditional Formatting Option for Rows Columns & Cells

- Formatting & Customizing Pivot Tables
- Using Advanced Options Of Pivot Tables, Pivot Charts
- Consolidating data from Multiple Sheets
- Using External data Sources
- Using data consolidation features on consolidate data
- Show Value as (% Row, % of Column Running Total Compare with Specific Field)
- Viewing Subtotal under Pivot
- Advanced date & time Functions
- Data Validation in Financial Functions
- Advanced Shortcut Keyboard Commands
- Create forms with Radio Buttons, Selection Tools Other programming tools Creating

Slicers

POWER BI CONTENT

Power BI Complete Introduction:

- Power BI Introduction
- Data Visualization, Reporting
- Business Intelligence(BI), Traditional BI, Self-Serviced BI
- Cloud Based BI, On Premise BI
- Power BI Products
- Power BI Desktop (Power Query, Power Pivot, Power View)
- Flow of Work in Power BI Desktop
- Power BI Report Server, Power BI Service, Power BI Mobile
- Flow of Work in Power BI / Power BI Architecture
- A Brief History of Power BI

PBI Desktop Installation, PBI Desktop & Service Overview

- Power BI Desktop Installation
- Building Blocks of Power BI
- Datasets, Visualizations, Reports, Dashboards, Tiles
- Power BI Desktop User Interface
- Fields Pane, Visualizations pane, Ribbon, Views, Pages Tab, Canvas
- Overview of Power Query / Query Editor - Extract, Transform & Load Data
- Connecting to Data Sources, Establish connection to the Excel source
- Importing Data into Power BI or Query Editor
- Transforming the Data using Power Query
- Model the Data using Power Pivot – Relationship View
- Creating New Measures and New Columns using DAX – Data View
- Visualizing the Data using Power View and Power Maps – Report View
- Saving and Publishing the Visuals or Reports
- Logon to Power BI Service
- View the Reports in PBI Service and Share the reports

Module 1: Power Query

Introduction to Power Query – Extract, Transform & Load

- Data Transformation, Benefits of Data Transformation
- Shape or Transform Data using Power Query
- Overview of Power Query / Query Editor, Query Editor User Interface
- The Ribbon (Home, Transform, Add Column, View Tabs)
- The Queries Pane, The Data View / Results Pane, The Query Settings Pane, Formula Bar
- Advanced Editor – Complete ETL Code
- Saving Your Work – Appling ETL Changes – Loading into Power Pivot Model
- Power Query Conceptually

Datatypes and Filters in Power Query

- Datatypes, Changing the Datatype of a Column
- Filters in Power Query
- Auto Filter / Basic Filtering
- Filter a Column using Text Filters
- Filter a Column using Number Filters
- Filter a Column using Date Filters
- Filter Multiple Columns

Inbuilt Column Transformations

- Remove Columns / Remove Other Columns
- Name / Rename a Column Reorder Columns or Sort Columns
- Add Column / Custom Column
- Split Columns
- Merge Columns
- PIVOT, UNPIVOT Columns
- Transpose Columns

In built Row Transformations

- Header Row or Use First Row as Headers
- Keep Top Rows, Keep Bottom Rows
- Keep Range of Rows
- Keep Duplicates, Keep Errors
- Remove Top Rows, Remove Bottom Rows, Remove Alternative Rows
- Remove Duplicates, Remove Blank Rows, Remove Errors
- Group Rows / Group By

Combine Queries (Append Queries & Merge Queries) Append Queries / Union Queries

- Append Queries
- Append Queries as New
- Append 2 or more files individually with different queries
- Appending multiple files of same type from a folder using single query
- Query Options
- Copy Query, Paste Query
- Delete Query, Rename Query
- Enable Load, Include in report Refresh
- Duplicate Query, Reference Query
- Move to Group, Move Up, Move Down

Merge Queries / Join Queries

- Merge Queries, Merge Queries as New
- Default Types of Joins / Join Kinds / Merge Type :
- Left Outer (all from first, matching from second)
- Right Outer (all from second, matching from first)
- Full Outer (all rows from both)
- Inner (only matching rows)
- Left Anti (rows only in first)
- Right Anti (rows only in second)
- Cartesian Join or Cross Join

Module 2: Power Pivot

Power BI Data Modeling – Relationship View

- Data Modeling Introduction
- Relationship, Need of Relationship
- Relationship Types / Cardinality in General
- One-to-One, One-to-Many (or Many-to-One), Many-to-Many
- AutoDetect the relationship, Create a new relationship, Edit existing relationships
- Make Relationship Active or Inactive
- Delete a relationship
- Cross filter direction (Single, Both), Assume Referential Integrity

Enhancing the Data Model – DAX

- What is DAX, Calculated Column, Measures
- DAX Table and Column Name Syntax
- Creating Calculated Columns, Creating Measures
- Implicit vs Explicit Measures
- Calculated Columns vs Measures
- DAX Syntax & Operators
- DAX Operators
- Types of Operators : Arithmetic Operators, Comparison Operators, Text Concatenation Operator, Logical Operators

DAX Functions Categories

- Date and Time Functions
- Logical Functions
- Text Functions
- Math & Statistical Functions
- Filter Functions
- Time Intelligence Functions

DAX Date & Time Functions

- YEAR, MONTH, DAY
- WEEKDAY, WEEKNUM
- FORMAT (Text Function) Month Name, Weekday Name
- DATE, TODAY, NOW
- HOUR, MINUTE, SECOND, TIME
- DATEDIFF, CALENDAR
- Creating Date Dimension Table

DAX Text Functions

- LEN, CONCATENATE (&)
- LEFT, RIGHT, MID
- UPPER, LOWER
- TRIM, SUBSTITUTE, BLANK

DAX Logical Functions

- IF
- TRUE, FALSE
- NOT, OR, IN, AND
- IFERROR
- SWITCH

DAX Math and Statistical Functions

- INT
- ROUND, ROUNDUP, ROUNDDOWN
- DIVIDE
- EVEN, ODD
- POWER, SIGN
- SQRT, FACT
- SUM, SUMX
- MIN, MINX
- MAX, MAXX
- COUNT, COUNTX
- AVERAGE, AVERAGEX
- COUNTROWS, COUNTBLANK

DAX Filter Functions

- CALCULATE
- ALL
- RELATED

DAX Time Intelligence Functions

- TIME INTELLIGENCE INTRODUCTION
- TOTALMTD, TOTALQTD, TOTALYTD
- PREVIOUSDAY, PREVIOUSMONTH, PREVIOUSQUARTER, PREVIOUSYEAR
- NEXTDAY, NEXTMONTH, NEXTQUARTER, NEXTYEAR
- SAMEPERIODLASTYEAR
- YOY Growth
- MOM Growth

Module 3: Power View

Report View / Power View

- Report View User Interface
- Fields Pane, Visualizations pane, Ribbon, Views, Pages Tab, Canvas
- Visual Interactions
- Interaction Type (Filter, Highlight, None)
- Visual Interactions Default Behavior, Changing the Interaction

Filters in Power View

- Filter Types
- Visual Level Filters, Page Level Filters, Report Level Filters, Drill Through Filters
- Filter Sub Types
- Basic Filtering, Advanced Filtering, Top N, Relative Date Filtering
- Numeric field filters, Text field filters, Date and Time field Filters

Grouping, Binning & Sorting

- Grouping and Binning Introduction
- Using grouping, Creating Groups on Text Columns
- Using binning, Creating Bins on Number Column and Date Columns
- Sorting Data in Visuals
- Changing the Sort Column, Changing the Sort Order
- Sort using column that is not used in the Visualization
- Sort using the Sort by Column button

Hierarchies and Drill-Down Reports

- Hierarchy Introduction, Default Date Hierarchy
- Creating Hierarchy, Creating Custom Date Hierarchy
- Change Hierarchy Levels
- Drill-Up and Drill-Down Reports
- Data Actions, Drill Down, Drill Up, Show Next Level, Expand Next Level
- Drilling filters other visuals option

Power BI Visualizations

- Visualizing Data, Why Visualizations
- Visualization types, Field Wells
- Visuals for Filtering, Visualizing Categorical Data, Visualizing Trend Data
- Visualizing KPI Data, Visualizing Tabular Data, Visualizing Geographical Data
- Leveraging Power BI Custom Visuals

Visuals for Filtering

- Slicer Visualization
- When to use a Slicer
- Create and format Slicer Visualization
- Hierarchy Slicer (Custom Visualization)
- When to use a Hierarchy Slicer
- Create and format Hierarchy Slicer
- Advantages of Hierarchy Slicer

Visualizing Trend Data

- Line and Area Charts
- Create and Format Line Chart, Area Chart, Stacked Area Chart
- Combo Charts
- Create and Format Line and Stacked Column Chart, Line and Clustered Column Chart
- Create and Format Ribbon Chart, Waterfall Chart, Funnel Chart

Visualizing KPI Data

- Create and Format Gauge Visual, KPI Visual
- Create and Format Card Visualization, Multi Row Card

Module 4: Power BI Service

Power BI Service Introduction

- Power BI Service Introduction, Power BI Cloud Architecture
- Creating Power BI Service Account, SIGN IN to Power BI Service Account
- Publishing Reports to the Power BI service, Import / Getting the Report to PBI Service
- My Workspace / App Workspaces Tabs
- DATASETS, WORKBOOKS, REPORTS, DASHBOARDS
- Working with Datasets, Creating Reports in Cloud using Published Datasets
- Power BI Datasets Live Connection using Desktop
- Working with Workbooks, working with Reports, Sharing Reports

Dashboards Development

- Creating Dashboards
- Pin Visuals and Pin LIVE Report Pages to Dashboard
- Advantages of Dashboards
- Interacting with Dashboards
- Adding Tiles to Dashboards
- Web Content, Image, Text Box, Video
- Formatting Dashboard
- Sharing Dashboard

Data Gateways

- Introduction to Data Gateways
- How Data Gateways work
- Connect to an on premise Data Source by using a Data Gateway
- Download Data Gateway
- Installing a Data Gateway
- Types of Gateways
- On-premises Data Gateway, On-premises Data Gateway (personal mode)
- Manage Data Gateway
- Add and Remove Administrators
- Add Data Source, Add or Remove Users to a Data Source
- Refresh On Premise Data
- Configuring Automatic Refresh using Schedules

Collaboration in Power BI using App Workspace

- Introduction to App Workspaces
- Create an App Workspace
- Add Members to App Workspace to Collaborate
- App Workspace Access
- Admin, Member, Contributor

Row Level Security in Power BI

- Introduction to Row Level Security
- Row Level Security (RLS) with DAX
- Manage Roles, Creating Roles, Testing Roles
- Adding Members to Roles in Power BI Service
- Dynamic Row Level Security
- Creating Users Table and Adding to the Model
- Capturing users using UserName () or UserPrincipalName ()
- DAX Functions

ADD ON

- Real-time Project Explanation
- Resume Preparation
- Interview Questions Discussions

TABLEAU CONTENT

1 Tableau And Data Visualization

- What is Data Visualization?
- Scope of Data Visualization
- Tableau Visualization Engine
- Various Visualizations: ext Tables, Pie Charts, Bar, and Line
- Visualizations: Heat Maps, Side by Side Lines, Highlight Tables, Circle Plots
- Visualizations: ree Maps, Area Charts, Dual Charts, Scatter Plots
- Tableau Workspace
- Dashboard and the Startup Quadrant
- Dashboard Tricks: Reference Lines, Droplines, and Tooltips

2 Tableau And Data Connections

- Understanding Data Connections
- How to connect to Tableau Data Server?
- Data Connections: Joining and Blending
- Defining a Join

- Various Kinds of Join
- Usage of Join
- Right Outer Join
- Custom SQL Enabled
- Data Blending and Tableau
- Usage of Data Blending
- Data Blending in Tableau
- What is Kerberos Authentication?
- Working of Kerberos Authentication

3 Data Organization

- How to Organize and Simplify Data?
- What is Filtering?
- How to Apply a Filter to a View?
- Filtering on Dimensions
- Totals and Sub totals
- Aggregating Measures and Data Spotlighting

- String Functions and Logical Functions
- How to Sort Data in Tableau?
- Combined Fields
- Group and Aliases
- Advanced Table Calculations
- Calculated Fields and Table Calculations
- Quality Assurance for Table Calculations
- Hierarchies and Sets
- Tableau Bins
- Fixed Size and Variable Sized Bins
- Drilling and Drilling Methods
- Aggregations
- Formatting and Annotations
- Spatial Analysis and Geo-Coding
- Chart Types:M otion Charts,Gantt Charts
- Box and Whisker Plots
- Mapping and Locations
- Pan Zoom Lasso and Radial Selection

4 Advanced Data Preparation And Analytics In Tableau

- Studying Retail Sector Forecasting
- Building and Analyzing Box Plots
- How to work with Large Data Sources in Tableau?
- Understanding and Implementing Pivot and Split
- Real World Retail and its Data
- Data Source Filters
- Trendlines
- Advanced Timeseries Blending
- Calculating Sales Per Capita
- Forecasting in Tableau
- How to Present a Storyline?
- Creating Animations in Tableau
- Real World Case Study: World Health Trends Investigation
- Building Visualization and Adding Animation
- Manually Sorting Blended Data
- Finalizing the Dashboard and Animations in Tableau

5 Dashboards And Work Sharing

- Building Interactive Dashboards
- What are Action Filters?
- How to create Story Boards?
- Best Practices to create Dashboards
- Cover Pages
- Annotations
- Tool Tips and keyboard shortcuts
- Sharing work
- Tableau Online
- Tableau Reader

MACHINE LEARNING

1. **Introduction of Statistics**
   - Descriptive statistics: Measure of Central Tendency, Measure of Dispersion, Measure of Shape
   - Probability and sampling: Conditional probability, Bayes theorem
   - Probability Distribution
   - Hypothesis Test
2. **Introduction to Machine Learning**
   - Introduction to Machine Learning
   - Types of Machine learning
   - Application of Machine Learning

3. Packages of Machine Learning

- Numpy
- Pandas
- Matplotlib
- Seaborn

4 Linear Regression

- Introduction to Linear Regression
- Understanding Ordinary Least Squares
- Cost Functions
- Gradient Descent
- Implementation with Scikit Learn
- Residual Plots
- Model Deployment and Coefficient Interpretation
- Bias Variance
- Regularization Overview
- Feature Scaling
- Introduction to Cross Validation
- Linear Regression Capstone Project

5 Logistic Regression

- Introduction to Logistic Regression
- The logistic Function
- Linear to Logistic
- Linear to Logistic Math
- Best fit with Maximum Likelihood
- Logistic Regression EDA and Model training
- Confusion Matrix and accuracy
- Classification Matrix Precision,Recall,F1 Score
- ROC Curves
- Logistic Regression Performance Evaluation
- Multiclass classification with Logistic Regression
- Logistic Regression Capstone Project

6. **K-Nearest neighbours**
   - K-Nearest Neighbors
   - Concept and theory
   - Distance functions: Euclidean, Minkowski
   - Why should we use KNN?
   - Mathematical approach
   - Dataset with problem description
   - Practical application on Python
   - KNN Capstone Project

7. **Support Vector Machine**
   - Introduction to Support Vector Machine
   - Hyperplanes and Margins
   - Kernel Intuition
   - Kernel trick and Mathematics
   - SVM implementation Classification
   - SVM implementation Regression
   - SVM Capstone Project

8 Decision Tree

- Introduction to Tree based methods
- History and terminology
- Understanding Gini impurity
- Constructing Decision Tree with Gini impurity
- Implementation of Decision Tree
- Decision Tree Capstone Project

9.Random Forest

- Random Forest Introduction
- Random Forest Key Hyper parameters
- Number of Features and Estimators in Subset
- Bootstrapping and Out-of-Bag Error
- Classification using random forest on Python
- Regression using Radom forest on Python
- Random Forest Capstone Project

10.Boosting Methods

- Introduction to Boosting
- Boosting Methods
- AdaBoost theory and implementation
- Gradient Boosting theory and implementation

11. Naive Bayes

- 19 Supervised Learning Capstone Project - Cohort Analysis and Tree Based Methods

12. Naive Bayes Classification and Natural Language Processing (Supervised Learning)

- Introduction to NLP and Naive Bayes Section Theory of classification
- Naive Bayes Algorithm - Part One - Bayes Theorem
- Naive Bayes Algorithm - Part Two - Model Algorithm
- Capstone Project

13. Clustering

- Introduction of clustering
- K-mean clustering
- K-Means Clustering Implementation
- K-Means Color Quantization
- K-Means Capstone Project
- Hierarchical Clustering Implementation
- Hierarchical Clustering Capstone Project

14. DBSCAN - Density-based spatial clustering of applications with noise

- Introduction to DBSCAN
- DBSCAN Vs K Means Clustering
- DBSCAN Hyper Parameter
- DBSCAN - Hyperparameter Tuning Methods
- DBSCAN Capstone Project

15. Time Series Analysis

- Introduction to time series
- Components of Time Series: Trend, Seasonal, Cyclical
- Types of Forecasting methods: Autoregressive Model, Moving Average Model, Autoregressive Integrated Moving Average Model, Seasonal Autoregressive Integrated Moving Average Model
- Practical application on Python

16. Principal Component Analysis and Manifold Learning

- Introduction to PCA
- Manual Implementation
- PCA Scikit Learn

ARTIFICIAL INTELLIGENCE

1. **Introduction**
   - Introduction to Artificial Intelligence
   - Applications of Artificial Intelligence
   - Keras
   - Tensorflow

2. **Deep Learning**
   - Introduction to Deep Learning
   - Application of Deep Learning
   - Types of Deep Learning Algorithms: ANN, RNN,CNN

3. **Artificial Neural Network**
   - Plan of attack
   - Activation function
   - Gradient descent
   - Stochastic Gradient Descent

- Backpropagation
- Practical approach with python

4. **Recurrent Neural Network**

- Introduction of Recurrent Neural Network
- Application of RNN
- Simple RNN
- GRU
- LSTM
- Practical approach with python

5. **Convolution Neural Network**

- Introduction of Convolution Neural Network
- Plan of attack
- Convolution Operation
- ReLU layers
- Pooling
- Flattening
- Different layers
- Practical approach using python

6. **Reinforcement Learning**

- Agent environment problem
- Reinforcement process
- Q-learning
- Practical approach with python

7. **Natural Language Processing**
   - Introduction of NLP
   - NLTK
   - Application of Natural Language Processing
   - Regular expression
   - Feature Extraction
   - Text mining
   - Phases of NLP
   - NLTK: Tokenizer, CountVectorizer
   - Sentiment Analysis
   - Practical approach with python
8. **Image Processing & Computer vision**
   - Introduction of computer vision
   - Application of Computer Vision
   - What is OpenCV
   - Image Processing with OpenCV
   - Image Detection with OpenCV
   - Practical approach with python

WHO CAN LEARN ?

- Professionals who are interested to learn the data analytics
- Professionals who are looking to change their career in data science
- University Students, Computer Science Graduates, Data Scientists
- Individuals who want to become research analyst, data analyst, data scientist, data visualizer etc.
- Students who want to pursue career quantitative, statistical analysis field

CAREER OPPORTUNITIES

- Python Developer
- Research Analyst
- Database Developer
- Data Scientist
- Data Journalist
- Data Analytics Trainer
- Data Architect
- Business Analyst And

Many More...

OUR RECRUITERS

and Many

PROCESS FOR SUCCESS

GET PLACED

GET TRAINED

ENROLL

FACILITIES OFFERED

- Practical Training on Live Projects
- Complete Placement Assistance
- Interview Preparation
- Global Certification
- Fully functional labs
- Online / Offline Training
- Study Materials
- Expert Level Industry Recognized Training