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Coding Training Academy By Gandhis

DATA/BUSINESS ANALYST WITH PYTHON

SYLLABUS

SR NO	TOPIC NAME
1	ADVANCED MS EXCEL
1	Overview of Advanced MS Excel What's New in MS Excel 2016 Advanced Concepts
2	Custom and Conditional Formatting and data analysis Customizing Quick Access Toolbar Conditional Formatting Data analysis using normal charts, formatting of charts, secondary axis use, scatter plots Data analysis using a Pivot table and pivot charts, sparklines Running Regression in excel, ANOVA, etc. Cover basic stats through excel - Functions like correlation, stddev, average, regression functions
3	Introduction to Macros Introduction to Macros Record Macros Run Macros Edit Macros
4	Data Security Protect Cells Protect Sheet Protect Workbook Protect Ranges
5	Advance Functions and Formulas Logical Functions Text Functions Lookup and Reference Functions Formula Auditing Randbetween Name Ranges and application
6	Advanced Data Tools Text to Column Data Validation What-If Analysis Duplicate Removal Data Sanitation through excel - Sorting, Filtering

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MICROSOFT POWER BI

2

1	Introduction to Power BI Business Intelligence Self Service Business Intelligence SSBI Tools Power BI vs Tableau vs QlikView What is Power BI ? Why Power BI? Key Benefits of Power BI Flow of Power BI Components of Power BI Architecture of Power BI Building Blocks of Power BI
2	Power BI Desktop and Data Transformation Overview of Power BI Desktop Data Sources in Power BI Desktop Connecting to a data Sources Query Editor in Power BI Query Ribbon Clean and Transform your data with Query Editor Combining Data – Merging and Appending Cleaning irregularly formatted data Views in Power BI Desktop Modelling Data Manage Data Relationship Automatic Relationship Updates Template Apps Cross Filter Direction Create calculated tables and measures Optimizing Data Models PBIDS Files
3	Data Analysis Expressions (DAX) Essential concepts in DAX Why is DAX important? DAX Syntax Data Types in DAX Ranking and rank over groups Filter and evaluation context Context interactions Calculation Types DAX Functions Measures in DAX DAX Operators DAX tables and filtering DAX queries Create simple and compound measures Schema relations Star schema design DAX Parameter Naming

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	4	Data Visualization Introduction to visuals in Power BI Charts in Power BI Matrixes and tables Slicers Map Visualizations Gauges and Single Number Cards Create scatter, waterfall, and funnel charts Modifying colors in charts and visuals Shapes, text boxes, and images What Are Custom Visuals? Page layout and formatting KPI Visuals Z-Order Explore time-based data AppSource
	5	Introduction to Power BI Service, Q&A and Quick Insights Introduction to Power BI Service Introduction to using workspaces Dashboard vs. Reports Quick Insights in Power BI Creating Dashboards Configuring a Dashboard Power BI Q&A Ask questions of your data with natural language Power BI embedded Create custom Q&A suggestions Edit tile details and add widgets Build apps Integrate OneDrive for Business with Power BI
	6	Connectivity Modes Introduction to using Excel data in Power BI Exploring live connections to data with Power BI Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL Introduction to Power BI Development API Import Power View and Power Pivot to Power BI Data caching and refresh Introducing Power BI Mobile
	7	Power BI Report Servers Report Server Basics Web Portal Paginated Reports Row level Security Data Gateways Scheduled Refresh Configure scheduled refresh Create a publish-to-web embed code Customize the sample Power BI file

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	8	Using R & Python in Power BI R Integration in Power BI Desktop R visuals in Power BI R Powered Custom Visuals Creating R visuals in Power BI R Visuals in Power BI Service R Scripts Security Creating visual using Python
	9	Advanced Analytics In Power BI Using Parameters Create a data flow Introduction to Anomaly Detection Introduction to Smart Narrative
3	TABLEAU	
	1	Data Preparation using Tableau Prep Data Visualization Business Intelligence tools Introduction to Tableau Tableau Architecture Tableau Server Architecture VizQL Introduction to Tableau Prep Tableau Prep Builder User Interface Data Preparation techniques using Tableau Prep Builder tool
	2	Data Connection with Tableau Desktop Features of Tableau Desktop Connect to data from File and Database Types of Connections Joins and Unions Data Blending Tableau Desktop User Interface Basic project: Create a workbook and publish it on Tableau Online
	3	Basic Visual Analytics Visual Analytics Basic Charts: Bar Chart, Line Chart, and Pie Chart Hierarchies Data Granularity Highlighting Sorting Filtering Grouping Sets
	4	Calculations in Tableau Types of Calculations

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		Built-in Functions (Number, String, Date, Logical and Aggregate) Operators and Syntax Conventions Table Calculations Level Of Detail (LOD) Calculations Using R within Tableau for Calculations
	5	Advanced Visual Analytics Tool tips Trend lines Reference lines Forecasting Clustering
	6	Level Of Detail (LOD) Expressions in Tableau Use Case I - Count Customer by Order Use Case II - Profit per Business Day Use Case III - Comparative Sales Use Case IV - Profit Vs Target Use Case V - Finding the second order date Use Case VI - Cohort Analysis
	7	Geographic Visualizations in Tableau Introduction to Geographic Visualizations Manually assigning Geographical Locations Types of Maps Spatial Files Custom Geocoding Polygon Maps Web Map Services Background Images
	8	Advanced Charts in Tableau Box and Whisker's Plot Bullet Chart Bar in Bar Chart Gantt Chart Waterfall Chart Pareto Chart Control Chart Funnel Chart Bump Chart Step and Jump Lines Word Cloud Donut Chart
	9	Dashboards and Stories Introduction to Dashboards The Dashboard Interface Dashboard Objects Building a Dashboard

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		Dashboard Layouts and Formatting Interactive Dashboards with actions Designing Dashboards for devices Story Points
	10	Get Industry Ready Tableau Tips and Tricks Choosing the right type of Chart Format Style Data Visualization best practices Prepare for Tableau Interview
	11	Exploring Tableau Online Publishing Workbooks to Tableau Online Interacting with Content on Tableau Online Data Management through Tableau Catalog AI-Powered features in Tableau Online (Ask Data and Explain Data) Understand Scheduling Managing Permissions on Tableau Online Data Security with Filters in Tableau Online
4	Data or business Analysis with Python	
	1	Introduction to Python Overview of Python The Companies using Python Different Applications where Python is Used Discuss Python Scripts on UNIX/Windows Values, Types, Variables Operands and Expressions Conditional Statements Loops Command Line Arguments Writing to the Screen
	2	Sequences and File Operations Python files I/O Functions Numbers Strings and related operations Tuples and related operations Lists and related operations Dictionaries and related operations Sets and related operations
	3	Deep Dive – Functions, OOPs, Modules, Errors and Exceptions Functions Function Parameters Global Variables Variable Scope and Returning Values Lambda Functions Object Oriented Concepts

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		Standard Libraries Modules Used in Python The Import Statements Module Search Path Package Installation Ways Errors and Exception Handling Handling Multiple Exceptions
	4	Introduction to NumPy, Pandas and Matplotlib Data Analysis NumPy - arrays Operations on arrays Indexing, slicing, and iterating Reading and writing arrays on files Pandas - data structures & index operations Reading and Writing data from Excel/CSV formats into Pandas Metadata for imported Datasets Matplotlib library Grids, axes, plots Markers, colors, fonts, and styling Types of plots - bar graphs, pie charts, histograms Contour plots
	5	Data Manipulation Basic Functionalities of a data object Merging of Data objects Concatenation of data objects Types of Joins on data objects Exploring a Dataset Analyzing a dataset