

CERTIFIED DATA ANALYST

Using Excel-SQL-Tableau-Power BI | Duration : 50 Hours



GET CERTIFIED

TRANSFORM YOUR CAREER

COURSE DESCRIPTION

This course is designed for beginners or non-programmers who are interested in building their career in Data Analytics.

The field of data analysis, as the name implies, analyses data to discover trends. It has tremendous uses in the fields like Banks & Finance Industry, Telecommunication, Airlines, Oil and Gas, Manufacturing, Insurance, Retail, Healthcare, Government, Aerospace & Defense, Fast Moving Consumer Goods (FMCG), Hi-Tech, Pharmaceutical, Hotels & Hospitality, Travel and Tourism, Media, Real Estate, Engineering, Sports, E-commerce, Energy and Utility, Automotive, Non-Profit, Chemicals, Advertising and Public Relations etc.. who rely on quality data analysis to arrive at strategic business decisions.

Working professionals can definitely improve their resume and their job prospects by achieving a certificate in data analytics course.

COURSE OBJECTIVE

- This course will encompass all to help you emerge as an Industry ready professional in the field of analytics.
- This course is to help you to become a successful Data Analyst. It will teach you how to make powerful reports, creating dashboards, working with MS SQL Database, along with a strong focus on case studies to ensure hands-on learning.
- In this program, you will also learn the powerful data visualization tools, Tableau & Power BI, the most popular data visualization and rapid BI tools to bring more interactive features to your analysis.

WHO SHOULD ATTEND?

- Students from various quantitative backgrounds, like Engineering, Finance, Maths, Statistics, Economics, Business Management.
- Professionals working with data in any industry.
- Analytics consultants.
- IT/Software Professionals.
- Anyone who aspires to spearhead their career in Data Analytics.

PREREQUISITES

- Computer literacy and knowledge of working with basic Microsoft Excel is necessary.

COURSE OUTCOME

You will have clear understanding of Data Analytics and how to manage & visualize the data. All the modules structured using real time, industry relevant data sets to enhance your analytics capabilities and problem solving abilities.

WHY DATABYTE ?



HIGHLY QUALIFIED & EXPERIENCED TRAINERS



INDUSTRY RELEVANT TRAINING PROGRAM



FULLY HANDS-ON PRACTICAL WORKING ON REAL-LIFE DATA SETS AND CASE STUDIES



INSTRUCTOR-LED CLASSROOM BASED TRAINING



CRAFTED BY EXPERTS TO KEEP YOU AHEAD IN INDUSTRY BEST PRACTICES

DATA ANALYTICS USING MICROSOFT EXCEL



INTRODUCTION TO EXCEL

- Navigating Worksheets
- Formatting and Editing Worksheet Data.

WORKING WITH DATE, TIME AND TEXT FUNCTION

- TODAY, NOW, DATE, DAY, MONTH, YEAR, TIME, WEEKDAY, NETWORKDAYS, EDATE
- Text Manipulating Functions
- LEFT, RIGHT, MID, LEN, PROPER, UPPER, LOWER, FIND, SUBSTITUTE, REPLACE, TRIM, RANK

NAMED RANGES IN PIVOT TABLES

- How to create name range in excel?
- How to leverage this feature to make your formulas much easier to write?
- How to use Excel Pivot Tables to quickly and easily analyze large amounts of data?

WORKING WITH FORMULAS & FUNCTIONS

- Formatting in Excel, Paste Special, Go to special and Conditional Formatting.
- Reference styles and cell referencing.

WORKING WITH LOGICAL AND STATISTICAL FUNCTIONS

- Logical and Conditional Functions.
- IF, AND, OR, NESTED IF.
- Statistical functions (aggregation).
- Average/IFs, Sum/IFs, Count/IFs.

CHARTING (PIVOT CHARTS & NORMAL CHARTS & DASHBOARD)

- Bar, Line, Bubble charts
- Advance charting
- Combining different chart types within one plot area.
- Saving and using chart templates
- Creating and customizing Charts

MICROSOFT SQL FUNDAMENTALS

INTRODUCTION TO SQL SERVER

- Getting started
- Installation details
- SQL Management Studio
- Utilizing the Object Explorer

UNDERSTANDING BASIC RDBMS CONCEPTS

- Schema –Meta Data –ER Diagram
- Looking at an example Database design
- Types of Relationships and joins
- What is RDMS concept?

DATA MANIPULATION – READING & MANIPULATING A SINGLE TABLE

- Basic Select statement
- Additional components – Where, Group By, Order by & Having clauses

DATA BASED OBJECTS CREATION (DDL COMMANDS)

- Creating, Modifying & Deleting Tables
- Create Table & Create Index statements
- Insert, Update & Delete statements
- Drop & Truncate statements – Uses & Differences
- Alter Table & alter Column statements

OPTIMIZING YOUR WORK

- Sub-queries vs. joins
- Stored Procedures
- Optimizing for Composite keys & Non-numeric Primary keys





VISUAL ANALYTICS USING TABLEAU

INTRODUCTION TO TABLEAU

- How to Download & Install Tableau Desktop
- Workspace, Navigation
- Introduction to Tableau & Architecture

BASIC DATA ANALYSIS

- Date Aggregations and Date parts
- Cross tab & Tabular charts
- Totals & Subtotals
- Bar Charts & Stacked Bars
- Line Graphs with Date & Without Date
- Tree maps
- Scatter Plots
- Individual Axes, Dual Axes & Combination chart

PARAMETERS

- Create What-If analysis
- Using Parameters in
 - Calculated fields
 - Bins
 - Reference Lines
 - Filters/Sets
 - Display Options (Dimension/Measure Selection)
- Parameter Control for the User

MAPS

- Explain latitude and longitude
- Default location/Edit locations
- Symbol Map & Filled Map
- Custom Geo Coding

DATA MANIPULATION

- Sorting
- Trend lines
- Reference Lines
- Forecasting
- Filters
- Context filters
- Sets
 - In/Out Sets
 - Combined Sets
- Grouping
- Bins/Histograms
- Drilling up/down – drill through
 - Hierarchies/View data
 - Actions (across sheets)

CALCULATED FIELDS

- Working with aggregate versus disaggregate data
- Basic Functions (String, Date, Numbers)
- Explain scope and direction of table calculations
- Percent of Total, Running / Cumulative calculations
- String calculations and Numeric calculations
- Logical calculations

WORKING WITH DATA

- Multiple Table Join.
- Data Blending and relationships.
- Difference between joining and blending data, and when we should do each.
- Working with the Data Engine / Extracts.
- Working with Custom SQL.
- When we go for Data Blending?
- When we go for Joining?

DASHBOARD CREATION & LOD EXPRESSION

- Dashboard size (Automatic Vs. Customized)
- Tiled vs. Floating
- Fit -> Entire View
- Floating Objects Container
- Format (Title, Color, Hide Sheet elements, Hiding Worksheets)



DATA VISUALIZATION USING POWER BI

INTRODUCTION TO POWER BI

- How to Download & Install Power BI Desktop.
- Workspace, Navigation.
- Introduction to PowerBI & Architecture.

DATA SOURCE AND CONNECTIONS

- How to import data into PowerBI model.
- Why and when Direct Query is required.
- Loading data from multiple sources.
- What is Query Editor?
- Using Query Editor for data cleansing.

DATA ANALYSIS EXPRESSION (DAX)

- DAX and its basic building blocks.
- Understanding Data Analysis Expressions.
- Context, create calculated columns (fields) and measures in PBI using DAX formulas, functions available in DAX.
- Understanding Data Analysis Expressions.
- Create expressions with relational functions.

IMPLEMENTING MEASURES AND KPIS

- Filter and evaluate tables using advanced table functions.
- Date functions, Dax Table Functions.
- Dax Calculation types, Calculate(), Filter(),
- Divide(), SamePeriodLastYear(),
- DistinctionCount() and Logical functions.

TIME INTELLIGENCE CALCULATIONS

- Calculate(), DateSyTd(), Filter() .
- DateAdd(), DatesBetween(), DatesInPeriod(.)
- DatesQtd(), FirstDate(), LastDate(), LastNonBlank(), NextDay() etc.

STATISTICS & ANALYSIS

- Balanced Data v/s Non-Balanced Data.
- Proc Univariate, Proc Corr, Proc Reg, Procedure GLM.
- Class Statement, Model Statement, Proc ANOVA.

SIMPLE & COMPOSITE CHARTS / GRAPHS

- How to choose correct chart?
- Various Charts in Excel, Chart Options, Combo Charts.
- Pareto Chart, Histogram, Water Fall, Dynamic Chats.

MODELLING IN POWER BI

- How to connect many different data sources.
- Manage data source (database) relationships.
- Unique keys, calculated columns and more.
- Custom calculations to evaluate time-based functions, Build calculated.

CHARTS AND GRAPHS

- Developing first chart, Bar chart, Dual axis chart.
- Time series, Tree map charts, Scatter chart, Plotting Pareto analysis, Combinational charts, Stacked bar charts, Waterfall charts, Control chats, Bump charts, Bollinger bands, Funnel charts.

PROJECT & ASSIGNMENTS

- Dashboard Design Principals.
- KPI Dashboard in PowerBI.
- Dashboard Examples, Business Dashboard, Dynamic Dashboard Making, Queries & Solutions



PROJECTS AND CASE STUDIES

- Predictive Modelling for Maintaining Supply.
- Prediction of Health Condition.
- Malicious User Detection.
- Evaluate Credit Score to resist credit frauds.
- Forecasting Electricity price.

CERTIFICATION

The certification is provided by Databyte Academy

Upon successful completion of the mandatory project work, students will be conferred with "CERTIFIED DATA ANALYST" certificate.

In order to be "Certified" as part of the course, students need to complete the assignments and project work. There is no pass/fail for these assignments and projects. Once all your assignments are submitted and evaluated, the certificate shall be awarded.