

# CERTIFIED DATA ANALYST

Using Excel-SQL-Tableau | Duration : 5 Days



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 Access and SQL databases, along with a strong focus on case studies to ensure hands-on learning.
- In this program, you will also learn the powerful Data visualization tool, Tableau, one of the most popular data visualization and rapid BI tool 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

# COURSE CONTENT : EXCEL

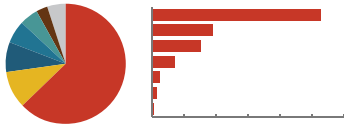
CERTIFIED DATA ANALYST



## EXPLORATORY DATA ANALYSIS USING EXCEL

### INTRODUCTION TO EXCEL

- Navigating Worksheets
- Formatting and Editing Worksheet Data
- Grouping Data, Subtotals and Data Validation



### WORKING WITH FORMULAS AND FUNCTIONS

- Referencing Functions
- Filter, advance filter
- Conditional formatting

### ANALYZING DATA WITH EXCEL

- Consolidating Worksheets (VLOOKUP/HLOOKUP, INDEX, MATCH, etc)
- Using Pivot Tables

### DATA ANALYTICS USING EXCEL

- Basic statistics; descriptive and summary
- Frequency, crosstabs
- Best in class evaluation
- Performance benchmarking
- Correlation analysis
- Key drivers analysis
- Association analysis
- Rules based Segmentation
- Interpretation of results

### CREATING CHARTS AND GRAPHICS

- Simple charts
- Pie charts

### DATA PREP & REDUCTION TECHNIQUES

- Need for data preparation
- Outlier treatment
- Flat-liners treatment
- Missing values treatment

### ESSENTIALS, PREPARING DATA FOR THE DASHBOARD

- A review of essential functions
- Logical functions IF, AND, OR, CHOOSE
- Error checking
- Statistical functions(aggregation) Avereate/IFs, Sum/Ifs, Count/IFs
- Rank, quartile, decile, percentile
- Standard deviation, correlation, mean, median
- Date functions TODAY, DATE, EDATE

- Text functions CLEAN, TRIM, LEFT, MID, RIGHT
- Importance of range names & Name Manager
- Referencing & Ranges
- Data validation
- Data integrity issues
- Setting validation
- Cleaning invalid data



## VISUAL ANALYTICS (REPORTING & DASH BOARDING) USING EXCEL

### OVERVIEW OF DASH BOARDING

- What is dash board & Excel dash board.
- Principles of great dashboard design
- Common mistakes dashboard design
- Selecting the correct chart to display data
- Adding icons and images to dashboard.
- Effective use of colour and logos

### STATISTICAL FUNCTIONS(AGGREGATION)

- AVERAGE/IFs, SUM/Ifs, COUNT/IFs
- MEDIAN, TREND, FORECAST
- Look up functions
- VLOOKUP, INDEX, MATCH, OFFSET

### ESSENTIALS, PREPARING DATA FOR THE DASHBOARD

- A review of essential functions
- Logical functions IF, AND, OR, CHOOSE
- Error checking
- Date functions TODAY, DATE, EDATE
- Text functions CLEAN, TRIM, LEFT, MID, RIGHT
- Importance of range names and Name Manager
- Referencing & Ranges
- Data validation
- Data integrity issues
- Setting validation
- Cleaning invalid data

### DECIDING ON DASHBOARDS

- Deciding On Dashboards
- Reports, Dashboards And Scorecards
- Selecting Measures And Metrics

### ADVANCED POWER CHARTING TECHNIQUES

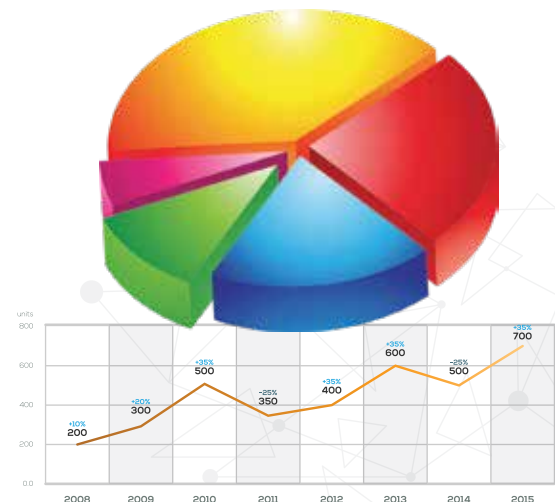
- Thermometer Chart
- Doughnut Chart
- Pareto chart
- Panel Chart
- Step Chart

### UNDERSTANDING WHICH EXCEL TOOLS ARE ESSENTIAL FOR DASHBOARDS

- Conditional formatting
- Conditional formatting basics
- Conditional format manager
- Tips and tricks
- Excel Tables
- Pivot tables - Advanced features
- Comprehensive overview
- Grouping fields
- Calculated fields
- Using slicers

### CHARTING (PIVOT CHARTS & NORMAL CHARTS)

- Pivot Charts & Visual Dash boarding Techniques
- How to select the Right Charts for your Data
- Overview of chart types and their suitability to dashboards
- Bar, Line, Bubble charts
- Advance charting
- Combining different chart types within one plot area
- Saving and using chart templates
- Interactive charts
- Charts tips and tricks
- Creating and customizing Charts
- New Features of Excel - sparklines etc.
- Design principles for including charts in dashboards



**/VISUAL ANALYTICS (REPORTING & DASH BOARDING) USING EXCEL**

**ADDING ACTIVEX CONTROLS**

- Why use ActiveX controls
- Linking charts to Form controls
- Add dashboard interactivity via controls
- Dropdown lists
- Check boxes
- Spin buttons

**MACROS**

- Macros basics
- Automating with useful macros

**TRENDS & SCENARIOS**

- Calculating a trend
- Inserting trend lines on charts
- Creating scenarios
- Options for choosing different scenarios

**CREATING YOUR EXCEL DASHBOARDS**

- Dashboard Do's and Don't's
- Data Layout Creating Dynamic Dashboards
- Merging and Consolidating Data Using shapes to make Charts more attractive
- Using Alerts to draw attention to dashboards
- Creating user defined charts

**BULLET-PROOFING YOUR DASHBOARDS**

- Protect dashboards by locking cells
- Password Protection
- Restricting incorrect data entry with data validations
- Using worksheet protection to prevent entry
- Protecting your dashboard files using "Read Only" and password protection

**PRACTICAL DASHBOARD CREATION: HANDS-ON DASHBOARD CREATION**

- Complete Management Dashboard for Sales & Services
- Creating a Sales Dashboard
- Creating a Services Dashboard
- Creating a HR Dashboard
- Best Practices in Dashboard Design

**/RBMS/RDBMS USING SQL**

**INTRODUCTION TO MS ACCESS**

- What are Databases
- Create and Modify Tables
- Working with Tables
- Form Designing
- Report Designing





## VISUAL ANALYTICS USING TABLEAU

<h3>GETTING STARTED</h3> <ul style="list-style-type: none"> <li>● Introduction to Tableau &amp; Architecture</li> <li>● My Tableau Repository</li> <li>● Connecting to Data sources</li> <li>● Understanding the Tableau workspace</li> <li>● Dimensions and Measures</li> <li>● Data Types &amp; Default Properties</li> <li>● Tour of Shelves &amp; Marks Card</li> <li>● Building basic views</li> <li>● Saving and Sharing your work-overview</li> </ul>	<h3>DATA MANIPULATION</h3> <ul style="list-style-type: none"> <li>● Sorting</li> <li>● Trend lines</li> <li>● Reference Lines</li> <li>● Forecasting</li> <li>● Filters</li> <li>● Context filters</li> <li>● Sets</li> <li>● In/Out Sets</li> <li>● Combined Sets</li> <li>● Grouping</li> <li>● Bins/Histograms</li> <li>● Drilling up/down - drill through</li> <li>● Hierarchies/View data</li> <li>● Actions (across sheets)</li> </ul>
<h3>BASIC DATA ANALYSIS</h3> <ul style="list-style-type: none"> <li>● Date Aggregations and Date parts</li> <li>● Cross tab &amp; Tabular charts</li> <li>● Totals &amp; Subtotals</li> <li>● Bar Charts &amp; Stacked Bars</li> <li>● Line Graphs with Date &amp; Without Date</li> <li>● Tree maps</li> <li>● Scatter Plots</li> <li>● Individual Axes, Dual Axes &amp; Combination chart</li> <li>● Parts of Views</li> </ul>	<h3>CALCULATED FIELDS</h3> <ul style="list-style-type: none"> <li>● Working with aggregate versus disaggregate data</li> <li>● Explain - #Number of Rows</li> <li>● Basic Functions (String, Date, Numbers)</li> <li>● Usage of Logical conditions</li> <li>● Explain scope and direction of table calculations</li> <li>● Percent of Total, Running / Cumulative calculations</li> </ul>
<h3>MAPS</h3> <ul style="list-style-type: none"> <li>● Explain latitude and longitude</li> <li>● Default location/Edit locations</li> <li>● Symbol Map &amp; Filled Map</li> <li>● Custom Geo Coding</li> </ul>	<h3>PARAMETERS</h3> <ul style="list-style-type: none"> <li>● Create What-If analysis</li> <li>● Using Parameters in</li> <li>● Calculated fields</li> <li>● Bins</li> <li>● Preference Lines</li> <li>● Filters/Sets</li> <li>● Display Options (Dimension/Measure)</li> <li>● Selection</li> </ul>
	<h3>BUILDING &amp; CUSTOMIZING DASHBOARDS</h3> <ul style="list-style-type: none"> <li>● Combining multiple visualizations into a dashboard (overview)</li> <li>● Making your worksheet interactive by using actions Filter/URL/Highlight</li> <li>● Options in Formatting your Visualization</li> <li>● Working with Labels and Annotations</li> <li>● Effective Use of Titles and Caption</li> </ul>
	<h3>WORKING WITH DATA</h3> <ul style="list-style-type: none"> <li>● Multiple Table Join</li> <li>● Data Blending</li> <li>● Difference between joining and blending data, and when we should do each</li> <li>● Working with the Data Engine / Extracts</li> <li>● Working with Custom SQL</li> <li>● Toggle between to Direct Connection and Extracts</li> </ul>



## PROJECT - CASE STUDIES

- Case Study on Gantt Charting Using Conditional Formatting and Logical Function.
- Exercise workbooks on Basic & Advanced Excel Functions, Pivot Tables etc.
- Sample Sales Dashboard
- 2 Case Studies on consolidating data from different workbooks into Excel

## EXAM & CERTIFICATION

The certification is provided by Databyte Academy

Upon successful completion of the program, students will be conferred with CERTIFIED DATA ANALYST.

In order to be "Certified" as part of the course, students need to complete the assignments and examination. Once all your assignments are submitted and evaluated, the certificate shall be awarded.