

CERTIFICATION IN DATA SCIENCE WITH R, TABLEAU & ADVANCE EXCEL

Our Training Program Is Divided into Three Levels

1- Basic Level	2 - Advance Level	3 - Progressive Level
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1) Basic Level - Analytics Foundation – Detailed Curriculum

<p>Course Learning Outcome:</p> <ul style="list-style-type: none"> ➤ Learning Path of Analytics ➤ Learn about Data and Analysis in the Real World ➤ Need of Analytics in Business ➤ Learn features of Statistics 	<p>Introduction to Analytics</p> <ul style="list-style-type: none"> ➤ Overview of Analytics ➤ Applications of Analytics ➤ What is Data Architecture? ➤ EnterpriseData Architecture ➤ Database Management System Data Warehousing
<ul style="list-style-type: none"> ➤ Analytical Tools used in Businesses 	<p>All about Data</p> <ul style="list-style-type: none"> ➤ Descriptive Statistics ➤ Probability Theory ➤ Inferential Statistics ➤ Metrics and Charts ➤ Learn features of Statistics ➤ Overview Hypothesis Testing 1 and 2 ➤ Univariate & Bi-Variate Analysis Predictive Stats & DM

2-A) - Advanced Level – Data Visualization Expert Powerful Excel Dashboards - Detailed Curriculum

<p>Module 1: Filling Data</p> <ul style="list-style-type: none"> ➤ Understanding Filling ➤ Filling A Series ➤ Creating A Custom Fill List ➤ Modifying A Custom Fill List ➤ Deleting A Custom Fill List 	<p>Module 2: Formula Referencing</p> <ul style="list-style-type: none"> ➤ Absolute and Relative Referencing ➤ Relative Formulas ➤ Problems with Relative Formulas ➤ Creating Absolute References ➤ Creating Mixed References ➤ other basic formulas
<p>Module 3: Creating Name range</p> <ul style="list-style-type: none"> ➤ Creating Names for the range ➤ Using Names in New Formulas ➤ Creating Names Using the Name Box ➤ Using Names to Select Ranges ➤ Pasting Names into Formulas ➤ Creating Names from a Selection ➤ Using the Name Manager 	<p>Module 4: Logical Functions</p> <ul style="list-style-type: none"> ➤ Understanding Logical Functions ➤ Using IF To Display Text ➤ Using IF To Calculate Values ➤ Nesting IF Functions ➤ Using IFERROR ➤ Using AND& Using OR ➤ Vlookup function&Multiple Vlookup
<p>Module 5: Conditional Formatting</p> <ul style="list-style-type: none"> ➤ Formatting Cells Containing Values ➤ Clearing Conditional Formatting ➤ More Cell Formatting Options ➤ Top & Bottom Ten Items ➤ Working with Data Bars ➤ Working with Color Scales ➤ Working with Icon Sets ➤ Creating Sparkline ➤ Editing spark lines 	<p>Module 7: Formulas</p> <ul style="list-style-type: none"> ➤ Count, CountA, CountIF&CountBlank ➤ Sum, SumIF&SumIFs ➤ Network days ➤ Networkdays International (For ver 2010) ➤ Today & Now function ➤ Trim (Removing unwanted spaces) ➤ Concatenate (Combining columns)
<p>Module 6: Advance Validation</p> <ul style="list-style-type: none"> ➤ Creating drop down in cells ➤ Restriction values from list only ➤ Creating error message 	<p>Module 8: Dynamic table</p> <ul style="list-style-type: none"> ➤ Converting data into table ➤ Automation calculation in table ➤ Converting table to normal range

➤ Creating dependent list	➤ Using table in Charts & Vlookup
<p>Module 9: Sorting Data</p> <ul style="list-style-type: none"> ➤ Understanding Lists ➤ Performing An Alphabetical Sort ➤ Performing A Numerical Sort ➤ Sorting On More Than One Column ➤ Sorting By Rows ➤ Working with subtotal ➤ Paste special ➤ Hyperlink 	<p>Module 10: Filtering Data</p> <ul style="list-style-type: none"> ➤ Understanding Filtering ➤ Applying And Using A Filter ➤ Clearing A Filter ➤ Creating Compound Filters ➤ Multiple Value Filters ➤ Creating Custom Filters ➤ Using Wildcards
<p>Module 11: Creating Charts</p> <ul style="list-style-type: none"> ➤ Choosing the Chart Type ➤ Creating a New Chart ➤ Working with an Embedded Chart ➤ Resizing a Chart ➤ Dragging a Chart ➤ Changing the Chart Type 	<p>Module 12: Charting Techniques</p> <ul style="list-style-type: none"> ➤ Adding a Chart Title ➤ Adding Axes Titles ➤ Positioning the Legend ➤ Showing Data Labels ➤ Showing a Data Table ➤ Modifying the Axes ➤ Showing Gridlines ➤ Adding a Trendline ➤ Adding a Text Box to a Chart ➤ Creating combination chart ➤ Creating 2 Axis chart
<p>Module 13: Pivot Tables</p> <ul style="list-style-type: none"> ➤ Understanding Pivot Tables ➤ Creating a PivotTable Shell ➤ Dropping Fields into a PivotTable ➤ Filtering a PivotTable Report ➤ Clearing a Report Filter ➤ Calculation in pivot ➤ Formatting a PivotTable Report ➤ Dynamic range for pivot ➤ Understanding Slicers ➤ Creating Slicers 	<p>Module 17: VBA: Worksheet and Ranges</p> <ul style="list-style-type: none"> ➤ Protecting your Macro Codes) ➤ Working with Workbooks & Worksheets ➤ Understanding Ranges coding ➤ Declaring Variables ➤ Arrays ➤ Pivot Tables from VBA ➤ User Forms ➤ Databases
<p>Module 14: File / Data Security</p> <ul style="list-style-type: none"> ➤ Open & Modify file password ➤ Sheet protection ➤ Protecting your sheet from deletion ➤ Protecting few cell, rows or cols ➤ Protecting your data from copying 	<p>Module 15: VBA- Macros</p> <ul style="list-style-type: none"> ➤ Recording & Running Macros ➤ Creating button to run the macro ➤ Assigning shortcut to macro ➤ Deleting Macros ➤ Relative reference in Macros
<p>Module 16: VBA- Basics</p> <ul style="list-style-type: none"> ➤ Overview of Excel VBA Editor ➤ Adding & Deleting Modules ➤ Sub & End Sub 	<p>Module 18: VBA: IF condition</p> <ul style="list-style-type: none"> ➤ Using IF in macro ➤ Using Multiple IF in macro <p>Module 19: VBA: Loops</p> <ul style="list-style-type: none"> ➤ Understanding Looping ➤ Practically using looping in macro
<p>Module 20: VBA: Debugging</p> <ul style="list-style-type: none"> ➤ Taking Backup of Modules ➤ Debugging Code & Break Points ➤ Commenting Code 	<p>Module 21: VBA: Messaging</p> <ul style="list-style-type: none"> ➤ Creating Message Box for interaction ➤ Using different types of Message boxes ➤ Using IF Condition in Message Box
<p>Module 22: VBA: Practical Projects</p> <ul style="list-style-type: none"> ➤ Formatting regular reports ➤ Auto Filtering & Separating Data ➤ Consolidating Multiple Sheet into one ➤ Consolidating multiple files into one 	<p>Module 23: Dashboards: Visualization Best Practices</p> <ul style="list-style-type: none"> ➤ Overview of Excel Dashboards and what can be done ➤ Designing Dashboards - the considerations ➤ Tips for Building Excel Dashboards

<p>Module 24: Dashboards: Excel Charting Principles</p> <ul style="list-style-type: none"> ➤ Overview of different chart types ➤ Editing and formatting your charts ➤ Creating and customizing Charts ➤ How to select the Right Charts for your Data ➤ Using specialist charts for your Excel Dashboards 	<p>Module 25: Dashboards: Excel Pivot Tables</p> <ul style="list-style-type: none"> ➤ Creating Pivot tables ➤ Changing the Pivot table layout ➤ Producing reports ➤ Grouping and ungrouping data
<p>Module 26: Dashboards: Creating Excel Dashboards</p> <ul style="list-style-type: none"> ➤ Dashboard Do's and Don'ts ➤ Data Layout ➤ Creating Dynamic Dashboards ➤ Creating a Thermometer Chart ➤ Using Alerts to draw attention to dashboards 	<p>Module 27: Creating Interactive Components</p> <ul style="list-style-type: none"> ➤ Adding a scroll bar to a data window ➤ Adding option buttons to a chart ➤ Using a combo box drop-down ➤ Using a list box control ➤ Using the Check Box Control
<p>Module 28: Analyzing Data</p> <ul style="list-style-type: none"> ➤ Understanding Data Quality issues ➤ Linking Data ➤ Merging and Consolidating Data ➤ Using the dashboards with Excel Pivot Tables 	<p>Module 29: VBA: Worksheet and Ranges</p> <ul style="list-style-type: none"> ➤ Protecting your Macro Codes) ➤ Working with Workbooks & Worksheets ➤ Understanding Ranges coding ➤ Declaring Variables ➤ Arrays ➤ Pivot Tables from VBA ➤ User Forms

2-B) - Advanced Level – Data Visualization Expert Tableau Certification Training - Detailed Curriculum

<p>Module 1: Tableau Fundamentals</p> <ul style="list-style-type: none"> ➤ Help Menu & Samples ➤ Dimensions and measures ➤ The use of tableau interface ➤ Single table & multiple table ➤ Copy and paste. 	<p>Module 2: Tableau Advanced</p> <ul style="list-style-type: none"> ➤ Custom SQL ➤ Editing data connection & Data menu ➤ Exporting data connection ➤ Size and transparency, Highlighting ➤ Dual Axis multiple measures ➤ Date calculations ➤ Table calculations with other calculations ➤ Running total ➤ Cumulative metrics ➤ Creating custom calculations If/then calculations
<p>Module 3: Tableau Visual Analytics, Dashboards</p> <ul style="list-style-type: none"> ➤ Dimensions and measures ➤ The use of tableau interface ➤ Grouping, Aliases ➤ Filtering ➤ Cross Tabs- (Pivot tables) ➤ Aggregation & Dis-aggregation 	<p>Module 3: (cont.)</p> <ul style="list-style-type: none"> ➤ Trend lines, Page trial ➤ Total & Subtotal ➤ Labels and Annotations ➤ Sharing Workbooks ➤ Publish to Reader ➤ Publish to Office ➤ Publish to PDF

3) Progressive Level– Data Mining, Model Building with R Programming –Detailed Curriculum

<p>Module 1: Basics of R Programming</p> <ul style="list-style-type: none"> ➤ Introduction R/R-Studio - GUI ➤ Packages and Functions (Text , Numeric, Date) ➤ Importing and Reading Data ➤ Data Structures and Data Types ➤ Variables and Value Labels ➤ Data Manipulations using base functions, dplyr, plyr, reshape ➤ Merging, conversions, NA removals ➤ Data Summarization Techniques ➤ Case Study – Banking Industry Domain 	<p>Module 2: Data Visualization and Data Analysis in R</p> <ul style="list-style-type: none"> ➤ Exploratory Data Analysis ➤ Univariate ➤ Bivariate Analysis ➤ Creating Graphs ➤ Packages in R for Exploratory Data Analysis ➤ Packages in R for Graphical Analysis Case Study – Credit Card Data
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<p>Module 3: Understanding Basic Statistics</p> <ul style="list-style-type: none"> ➤ Measures and spread ➤ Central Limit Theorem ➤ Probabilities and cumulative probabilities ➤ Distributions ➤ Statistical Test ➤ Hypothesis Testing ➤ ANOVA ➤ Case Study – Student Data Set 	<p>Module 4: Modelling Technique – Linear Regression</p> <ul style="list-style-type: none"> ➤ Simple Linear Regression ➤ Multiple Linear Regression ➤ Correlation - Ordinary Least Squares ➤ Design Requirements and Assumptions ➤ Response variable exploration ➤ Independent variables analyses ➤ Heteroskedasticity detection and correction ➤ Multicollinearity detection and correction ➤ Fitting the regression ➤ Model performance check ➤ Case Study – 1) Insurance Data 2) Bank Loan Data
<p>Module 5: Modelling Technique – Logistic Regression</p> <ul style="list-style-type: none"> ➤ Introduction to Logistic Regression Theory ➤ Multicollinearity detection and Treatment ➤ Fitting the logistic regression ➤ Reducing variables (Significance check) based on p-values and AIC ➤ Validating the logit model ➤ Preparing cutoff matrix ➤ Determine KS Cutoffs ➤ ROC Curves ➤ AUC (Area Under the Curve) ➤ Lift and Gain Chart ➤ Concordance and Discordance ➤ Finalizing the model ➤ Model performance ➤ Case Study – Customer Churn Model 	<p>Module 6: Supervised Learning</p> <ul style="list-style-type: none"> ➤ Classification Process ➤ Decision Trees ➤ Classification Rules of Trees ➤ Overfitting ➤ Information Gain ➤ Naïve Bayes Classifier Model ➤ KNN Classifier ➤ Support Vector Machines ➤ Random Forest Algorithm ➤ Standardizing Losses in Insurance data ➤ Calculating Distance in Losses of Insurance data ➤ Growing trees using Random Forest ➤ Plotting and using variable importance plot ➤ Finalizing results of the Random Forest Algorithm ➤ Case Study – Insurance Data Set
<p>Module 7: Unsupervised Learning</p> <ul style="list-style-type: none"> ➤ K-Means Clustering ➤ Calculating and using Calinski Value ➤ Plotting Elbow chart ➤ Performing k-means clustering and inferring from the results ➤ Hierarchical Clustering ➤ Requirements of Hierarchical Algorithm ➤ Agglomerative Clustering Process ➤ Divisive Clustering Process ➤ Case Study - Insurance Industry 	<p>Module 8: Association Rule Mining</p> <ul style="list-style-type: none"> ➤ What Is Association Mining? ➤ Market Basket Analysis ➤ Rule Measures: Support and Confidence ➤ Mining Association Rules: Apriori Principle ➤ Capturing the insightful association available in the transaction records ➤ Analysis of output results to plan store layout, promotions and recommendations ➤ Case Study – Retail Industry Data Set
<p>Module 9: Time Series Modelling</p> <ul style="list-style-type: none"> ➤ Models of time series ➤ Moving averages ➤ Autoregressive Models ➤ Checking stationarity assumption using Dickey Fuller Test ➤ The Box-Jenkins model building process Model Estimation ➤ Model Validation Model forecasting ➤ Identify the ARIMA model ➤ Estimate the best ARIMA models ➤ Validate the model ➤ Forecast the sales based on model ➤ Case Study - Automobile Industry 	<p>Module 10: Sentiment Analysis</p> <ul style="list-style-type: none"> ➤ Creating a twitter developer account ➤ Creating an API to access data from R ➤ API Authorization ➤ Connecting to twitter from R ➤ Transforming tweets to readable data ➤ Cleaning the data ➤ Creating corpus ➤ Preparing the word cloud ➤ Classifying into sentiments for sentiment analysis ➤ Case Study – Twitter Analysis