

# DATA SCIENCE & BUSINESS ANALYTICS COURSES

## Introduction to Data Science and Business Analytics

Data Science is a combination of various tools, algorithms, and machine learning principles with the goal to discover best insights from the raw data.

Both Data Science and Business Analytics involve data gathering and modeling to generate insights for decision making. *Data Science* is the superset of the two and combines data collation, data cleaning, programming and statistical modelling to gain insights on social, scientific and business subjects. In comparison, *Business Analytics* is generally used to address business related issues like sales trends, customer preferences, profitability, quality etc.



Very large volumes of data are being generated each minute in different industries like Retail, Banking, Finance, Automobile, Healthcare, Telecom and Public sector. With the availability of data, data science has become immensely popular in today's world as it helps in extracting hidden patterns and gaining better insights on business performance, for improved decision making.

Advanced data science processes involves mathematical approaches to interpreting data, more complex statistical methods and machine-driven techniques like deep learning to identify patterns, correlations and groupings in data sets, which helps in prediction about future behavior. Machine Learning and Artificial Intelligence are gaining traction and will be increasingly used in Data Science applications.

***Predictive analytics, data mining and machine learning are just some of the analytical tools in advanced data science.***

## Need for Acquiring Data Science Skills

As demand for deriving insights from data increases, one needs to understand how to manage tasks like:

- Data Manipulation i.e. organizing, arranging, summarizing etc.
- Data Communication with visualization techniques
- Data analysis with statistical algorithms which is analyzing & discovering “insights”.

## Course Offerings

In order to provide a good learning experience in Data Science and Business Analytics, we have designed our courses with the requisite breadth and depth. Our courses are **modular** so that students can select a combination of courses they are interested in.

## Course Design

The courses are **online**, so students can learn at their own pace and convenience 24/7 and will have the flexibility to learn over a period of time. The course content is accessible from multiple devices. For some of our courses, we offer **blended learning** to enhance the learning experience.

Learn Anywhere

online

Learn Anytime

Industry Oriented Courses

- Designed by professionals with rich experience in DS
- Industry Relevant
- Facilitators have both industry and teaching experience
- Equip students for better jobs



## What We Offer

- Finest learning content for Data Science technology and software tools
- Content in form of PPTs, PDFs, online reading and reference material, datasets for practice, case studies and quizzes for self-assessment
- Certificate of Completion
- Unlimited practice time with practical sessions
- Course upgrades and new case studies periodically

The courses are online, so students can learn at their own pace and convenience 24/7. The course content is accessible from multiple devices.

## Course Objectives

After completing this course students can:

- Obtain, clean, transform, and process raw data into usable formats
- Work with advance statistical methods for inference and prediction
- Organize and perform a complete analysis, from exploration, to analysis, to synthesis, to communication
- Get familiarized on tools like R & Python with advanced techniques like AI & ML

## IMPORTANCE OF DATA HANDLING USING SQL

Data describes the facts and figures that an organization processes every day. Data becomes information after it has been processed to add context, relevance and purpose.

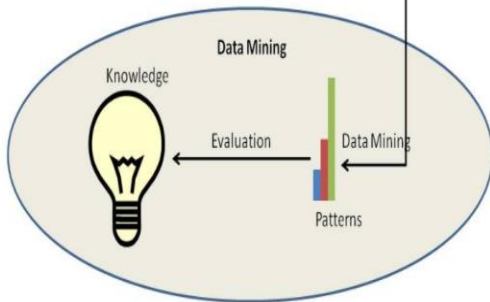
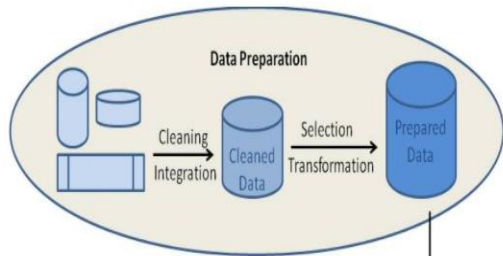
Data processing is Important since more reliable and better decisions can be taken to improve productivity and profitability. The ability to analyze and act on data is becoming increasingly important, for businesses to react quickly to changing demands from customers and business.

## Data management can be divided into two parts

- Data Storing
- Data Preparation & Cleaning

### Data Storage:

In today's business world data storage and access is very critical and essential, so that important information on business performance can be monitored. Current business practices place a lot of prominence on IT infrastructure that serves and stores it.



## Data Preparation

Data Preparation involves checking or logging the data in; checking the data for accuracy; entering the data into the computer; transforming the data; and developing and documenting a database structure that integrates the various measures.

*"In simple words data preparation is the process of collecting, cleaning, and consolidating data into one file or data table, primarily*

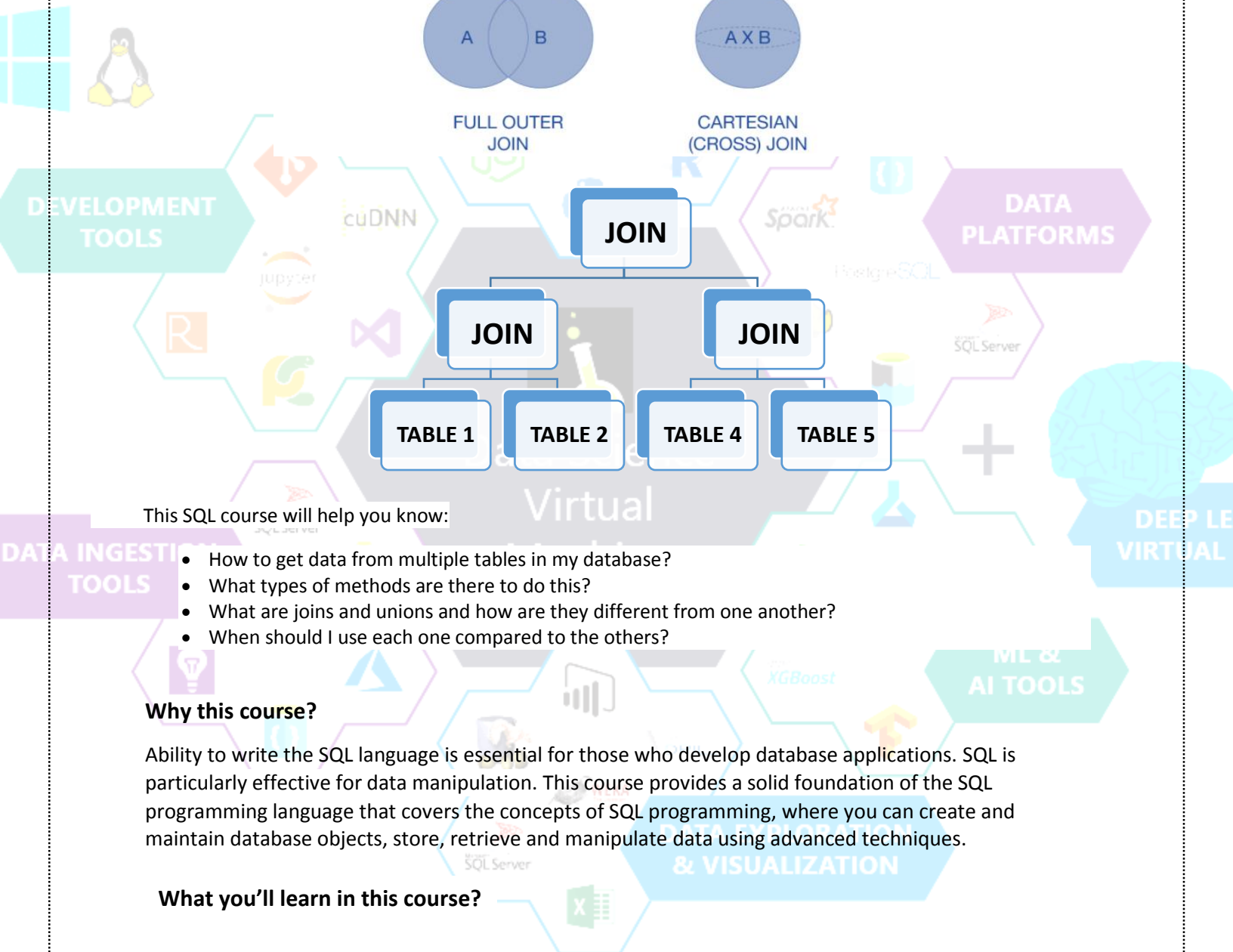
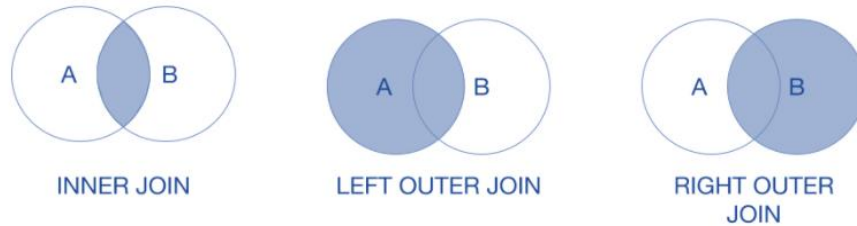
## About MS SQL

SQL stands for **Structured Query Language**. SQL is the standard language of Database and is also pronounced as Sequel. SQL is the primary language responsible for managing data and data structures contained within a relational database management system.



Since data is very important in today's business world saving and maintaining it is also essential. Learning SQL will allow you to mine data with greater efficiency. Using basic queries you can identify specific data at time intervals, view update events, monitor table activity, and much more. Data is saved in different tables at different layers in a data base, so joining these multiple table using advanced SQL techniques along with applying complex statistical techniques into this data can bring some good insights like:

- How the business is performing?
- How the business will perform in future?



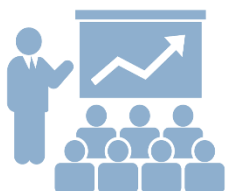
This SQL course will help you know:

- How to get data from multiple tables in my database?
- What types of methods are there to do this?
- What are joins and unions and how are they different from one another?
- When should I use each one compared to the others?

### Why this course?

Ability to write the SQL language is essential for those who develop database applications. SQL is particularly effective for data manipulation. This course provides a solid foundation of the SQL programming language that covers the concepts of SQL programming, where you can create and maintain database objects, store, retrieve and manipulate data using advanced techniques.

### What you'll learn in this course?



This course will help students or professionals to understand the basic importance and functionalities of SQL, where one can create new databases, create new tables, update them and execute queries. You will also learn advanced techniques such as joining multiple tables using different types of joins, complex queries like sub queries, coalesce, case statement, having etc.



# MS SQL COURSE CONTENTS



LEVEL 1 - BEGINNERS COURSE
Introducing SQL
*What Is SQL?
*Types Of SQL Commands: DDL, DML, DCL
*What Is Data? What Are Database Objects?
*What Is A Schema?
Tables
*What is a Table?
*Creating, Update, Drop & Delete Table Using SQL
Writing SQL Statements
*Selecting Data
*Selecting Columns
*Selecting Sample
*Selecting Top Rows
SQL Editing Functions
*Add & Rename Column
SQL Cast
SQL Case Statement
SQL To Date
SQL Conjunctive Operators
*SQL And & Or
Other Important Functionalities
*SQL Distinct
*SQL Where Clause
*SQL In Function
*SQL Between Function
*SQL Alias
*SQL CONCATENATE
*SQL TRIM
*SQL LENGTH
*SQL LIKE

LEVEL 2 - MASTERS COURSE
<b>SQL Joins</b>
*SQL Inner Join
*SQL Outer Join
*SQL Left Join
*SQL Right Join
<b>Advance SQL Joins</b>
*SQL Cross Join
*SQL Union
*SQL Union All
*SQL Minus
<b>SQL Coalesce</b>
<b>SQL Mathematical Function</b>
*SQL Average
*SQL Count
*SQL Subtraction
*SQL Multiplication
*SQL Division
*SQL Max
*SQL Min
*SQL Sum
*SQL Round
<b>Aggregate Functions</b>
*The Group By Clause
*The Having Clause
<b>SQL Is null Function</b>
<b>SQL If null Function</b>
<b>SQL Sub-Query</b>
<b>SQL Convert</b>
<b>SQL Substring</b>
<b>SQL In string</b>

## REPORTING & ITS IMPORTANCE USING EXCEL

### About Excel

Microsoft Excel is the most commonly used spreadsheet application. Excel is a good stepping stone for people who are new to the world of data analysis or reporting. Excel, with its wide range of functions, visualization and arrays, empowers you to quickly generate insights from data. Knowledge of MS Excel increases the efficiency at work to get more work done in less time.

**Reporting** is the process of organizing data into informational summaries in order to monitor how different areas of a business are performing. Reporting translates raw data into useful information. Reporting is most important key aspect in today's analytical world. With good reporting end users can consume integrated data in an efficient manner to drive proactive decision-making for competitive advantage.



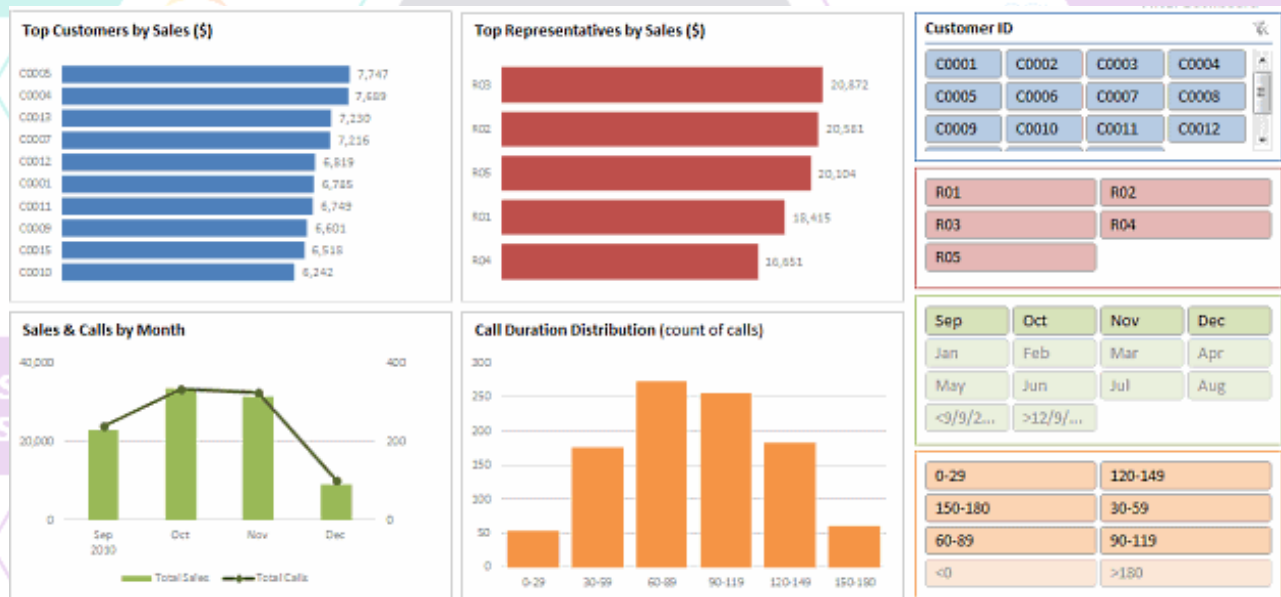
Reporting is becoming critical for all organizations, and enhances the ability to make more informed evidence-based decisions.

Right reporting can have a significant impact on an organization, fundamentally changing the way people perform their jobs and how decisions are made.

## DATA ANALYTICS & VISUALIZATION USING EXCEL

**Visualization.** Data visualizing with tables & charts using Excel is very attractive and also very simple. Visual reports can provide better insights to business. Charts are used to make a graphical representation of any set of data & tables are used to summarize information from a raw data in more meaningful ways.

A chart is a visual representation of the data, in which the data is represented by symbols such as bars in a Bar Chart or lines in a Line Chart. A table is a summary representation of data, with the help of tools can be sliced and diced to get the summary details at different levels.



All the charts in dashboard are dynamically filtered when you make selection using slicers

**Data Analysis:** Excel is used to do basic data analysis tasks to see whether it is a reasonable alternative to using a statistical package for the same tasks.



## MS EXCEL



*Microsoft Excel provides a set of data analysis tools called the Analysis Tool Pack which you can use to save steps when you develop complex statistical analyses. Using datasets and parameters for each analysis; Excel uses the appropriate statistical macro functions and then displays the results in an output table.*

### Why this course?

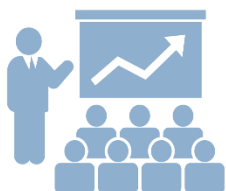
Learning how to use Excel is an investment in professional life. This training material provides instructions with the fundamental spreadsheet features of Microsoft Excel. Topics covered in this document will help you become more proficient with the Excel application

Beginners may get proficient and learn anything from how to start working in excel to how to input data, share files play with ribbon etc. Advanced Microsoft Excel training will help students to further develop their skills by learning to work with advanced formulas, lists, and illustrations. Students will also work with charts and advanced formatting including styles.

On completing this course students can:

- 1) Create attractive dashboard like any other bi tools like tableau/micro strategy.
- 2) Can do analytics using excel apart from reporting like correlation, Regression etc.

### What you'll learn in this course?



This course is valuable for anyone who would like to learn Excel for analysis and powerful reporting. On completing this course students will have a good understanding of basic and advanced concepts in Excel, that includes creating workbooks, formatting worksheets using different options, rows and column controls, auto-fill and auto sum, constructing formulae, mathematical functions, editing features, printing setup and artistic effects. Students will also learn advanced features such as creating pivot tables along with slicers, use of different kind of charts, working with advanced if conditions, creating dashboards and finally understanding the use of statistical tools in excel.

# MS EXCEL COURSE CONTENTS



## LEVEL 1 - BEGINNERS COURSE

Excel Introduction
Different versions of Excel
Introduction to Spreadsheets & Basic Spreadsheet Skills
Starting to work with Excel
Types of data
Placing Cell Alignment & its functionalities
Excel Help System
Opening & Closing Workbooks
Page Layout & its Functionalities
Understanding Workbook File Formats
Selecting Cells
How to Insert Row & Column
How to play with Sheet
Importance of Cell Referencing
Formatting Number & Cell
Truncate Function
Editing, Copying & Moving cells
Features of each menu in Ribbons & Toolbars
Proofing
Find & Replace
Trim, Round, Transpose - Functionalities
Uses of Lower, Upper, Proper functions
Add Comments
Concatenation
Freeze Headers
Filtering & Sorting
Type of Operations
Sum, Average & Range
Count & Count A functionality & difference
Auto Sum & Auto Fill Function

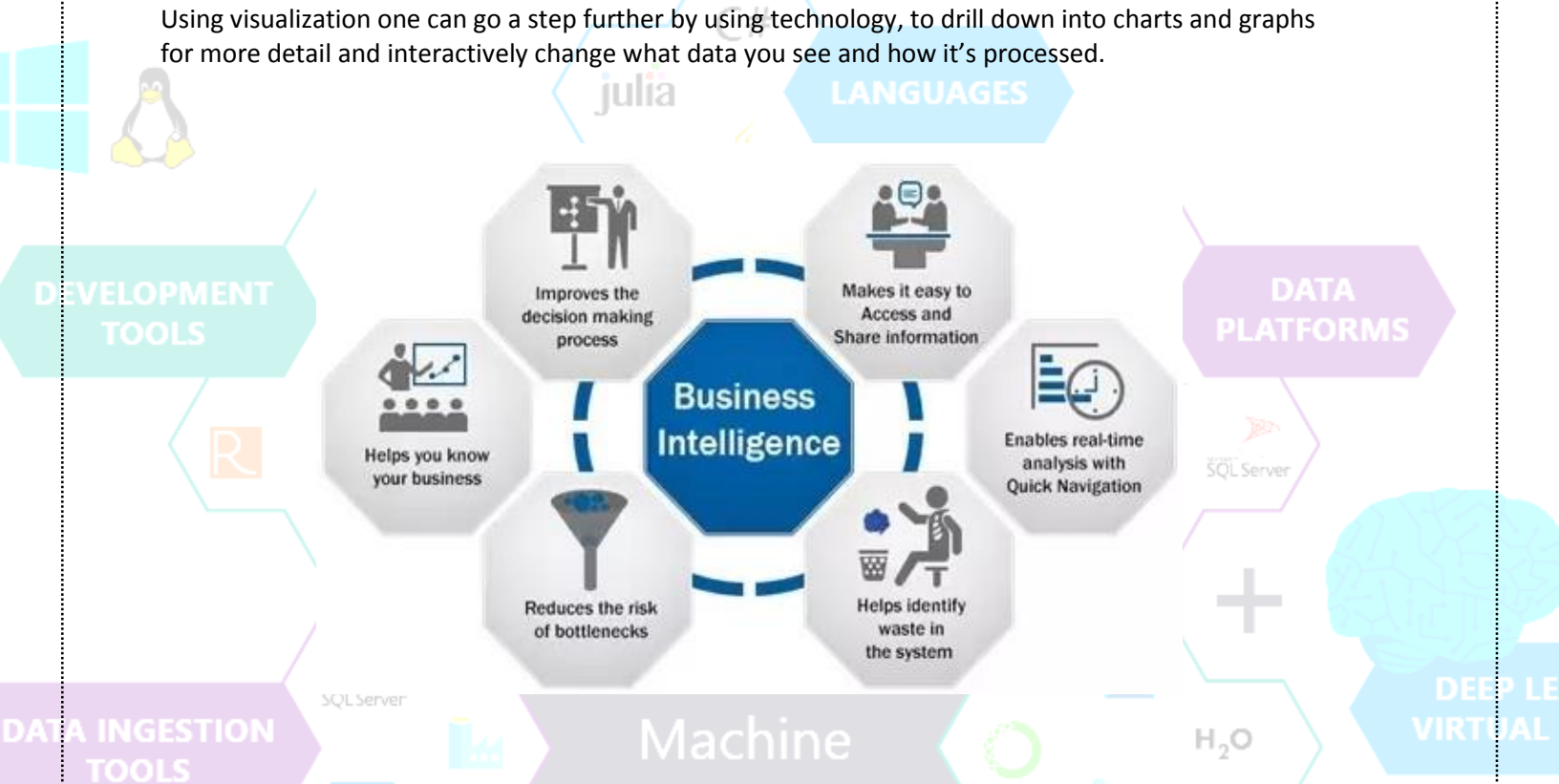
## LEVEL 2 - MASTERS COURSE

Remove Duplicates & Listing Options
Vlookup's
Hookups
Formula Auditing and Error Tracing
Subtotals and Grouping
Pivot Tables
* Filtering and Sorting a PivotTable
* Changing a PivotTables Calculation
* Updating a PivotTable
Pivot Slicers
Chart Techniques
* Understanding chart layout elements
* Adding a chart title & axes titles
* Positioning the legend
* Showing data labels & data table
* Modifying the axes & Formatting the plot area
* Drawing shapes in a chart
Hyperlinks in Excel
IF Conditions
* Sum IF & Sum IFS
* Average IF & Average IFS
* Count IF & Count IFS
* Creating the AND function within an IF
* Creating the OR function within an IF statement
* The NOT function
Match Index
IS Error
IS Number
Basic Statistics function using Excel
Short Cut Keys

## DATA VISUALIZATION, DASHBOARDS and PUBLISHING WITH TABLEAU

Data visualization is the presentation of data in a graphical format. It enables decision makers to see analytics presented visually, so they can grasp difficult concepts or identify new patterns.

Using visualization one can go a step further by using technology, to drill down into charts and graphs for more detail and interactively change what data you see and how it's processed.



**Tableau is a Business Intelligence Tool used for data visualization. With Tableau you can gain insights by just visualizing the stats that you already have with you and use it for your development of your business**



BI (Business Intelligence) dashboards are analytics tool used to visualize large data sets. A business intelligence dashboard is a data visualization tool. It provides essential information for a specific objective.

These dashboards provide critical reporting and metrics information and are integral in Business Performance Management. A business dashboard is also known as an enterprise dashboard.



Since dashboard displays the performance of a business organization by summarizing and arranging numbers on a single screen more and more companies rely on dashboards to make sense of their data.

Dashboards are built with the hope that it will turn huge amount of data into actionable insights.

**Publish:** Once the dashboard is created we want to share it, so the best way is to publish or share. Tableau content can be published to Tableau Server which has different capabilities, security models and requirements.



# TABLEAU

## About Tableau

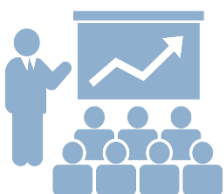
Tableau is an industry leading BI tool which will help to create data visualization, dash boarding and data discovery. Tableau is used for data science & business intelligence. Tableau is one of the simplest tools to learn which can drill down data and see the impact in a visual manner.

## Why this course?

Tableau is an important tool which helps in visualization of data in different ways. This tool is very user friendly and provides results very quickly than any other BI tool. As data visualization is an art of presenting the data in a manner where any one can understand it better, visualization created by Tableau plays a major role in providing insights which helps improving business effectiveness. Progressively the demand for this kind of BI tool will get increase significantly.



## What you'll learn in this course?



All those who are new to Tableau will be able to understand the importance of Tableau in today's business world, which includes tableau architecture, basics on worksheets and dashboards, filters and publishing dashboards. The course will cover advanced techniques such as building interactive dashboards, data visualization with advanced features like customizing filters, calculated columns and table calculations, different kinds of charts along with Tableau server components.

# TABLEAU – COURSE CONTENTS



LEVEL 1 - BEGINNERS COURSE
<b>Business Analytics Architects</b>
* Dashboards
* Reporting
* Visualizations
* Data Preparation
* Modern Data Warehousing
* Self-Service Business Analytics
* Big Data & Advanced Analytics
* Planning & Forecasting Systems
<b>How Business Reporting Work?</b>
<b>Statistics Concepts</b>
<b>About Tableau</b>
<b>Why Tableau?</b>
<b>Tableau reporting architecture</b>
<b>Tableau Products</b>
<b>Measures &amp; Dimensions</b>
<b>Continuous &amp; Discrete data</b>
<b>Values axis &amp; Category axis</b>
<b>Data Visualization</b>
*Types of Data
*Flat File
*Database
*Web services, Cloud
*Salesforce
*Google Analytics
*Google Big Query+A53
*Clipboard
*Tableau Server Data Sources
*Basics on Worksheets and Dashboards
*Basics on Filters
*Saving & Publishing of dashboard

LEVEL 2 - MASTERS COURSE
<b>Options In Tableau</b>
*Worksheets and Dashboards
*Customizing Filters
*Filter Actions & Functionalities
*Row Shelf & Column Shelf
*Marks cards
*Color, Size, Label, Detail
*Tooltip, Path, Sets
*Creating Parameters & Using Parameters
*Groups
*Calculated Columns
<b>Charts &amp; Visualization</b>
* Pie Charts, bar charts, stacked bar charts, dual lines
*Highlight tables
* Heat maps, Symbol maps, Tree maps, Filled Maps
*Circle views & Histogram
*Area Charts - (Continues & Discrete)
*Combination charts, Scatter Plots & Box Plots
*Gantt charts, Bullet Charts, Packed bubble charts
<b>Dashboards</b>
*Building Dashboards
*Trend Lines & Forecasting
*Reference Bands & Lines
*Show Missing Values & Handling Null Values
*Legend Highlighting & Layout Containers
*Visually Grouping Data
*Table Calculations
*Computing Totals
*Formatting & Annotating
*Tiling & floating dashboards
*Tableau Server & Sharing Server views

## DATA ANALYTICS WITH “R”

Analytics is most popular in today's competitive world which helps business to take major decisions. When speaking about analytics we come across: business intelligence, predictive analytics, big data and data science. Most of these practices can be utilized to solve major business issues. Data Analytics refers to qualitative and quantitative techniques and processes like collecting, processing, analyzing and interpreting data to gain insights. And finally, insights can have direct, measurable impact on business.



Analytics will help to measure and track results across time and understand the business. Analytics is a science of extracting trends, patterns and useful information from a set of data. Analytics is used making better use of resources which improves profitability.



Analytics helps in understanding

- ***What had happened?***
- ***How or why did it happen?***
- ***What's happening now?***
- ***What is likely to happen next?***

# MACHINE LEARNING & ARTIFICIAL INTELLIGENCE WITH R and PYTHON

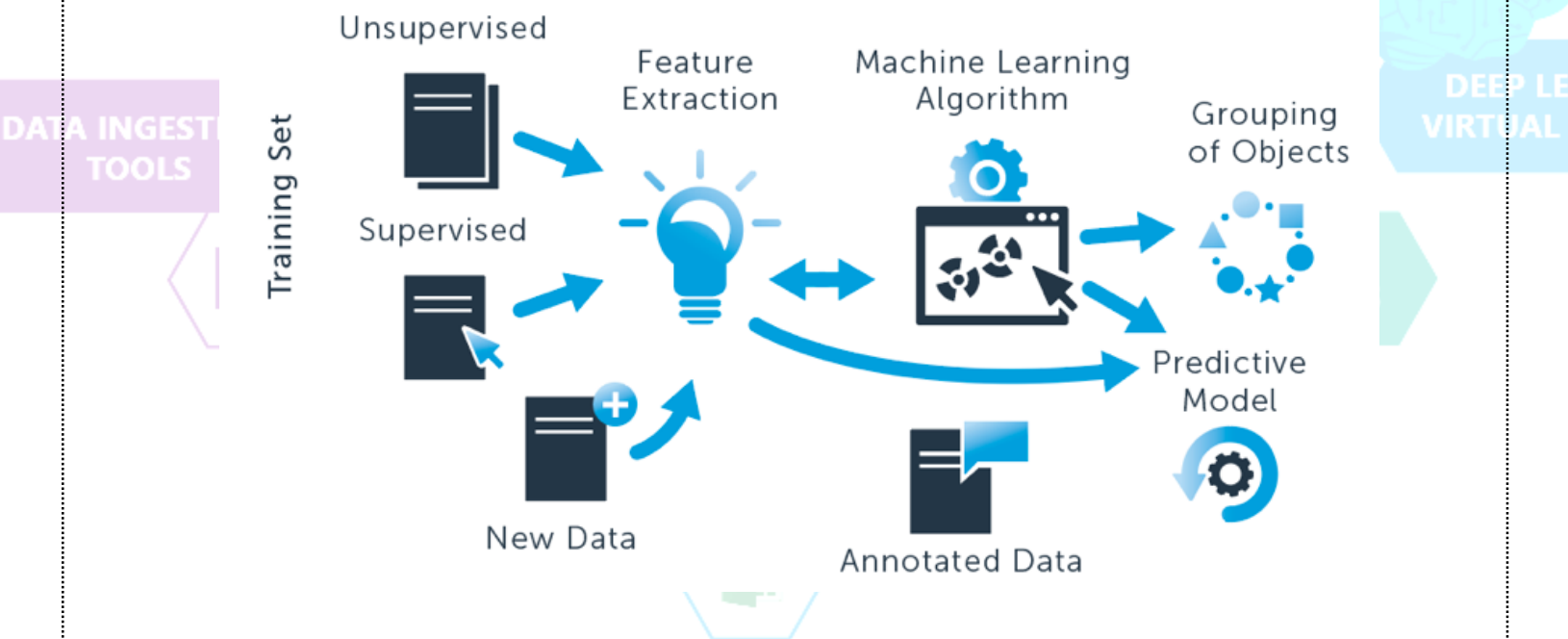
Machine learning is a subfield of artificial intelligence and computer science that allows software applications to be more accurate in predicting results. The prime objective of machine learning technology is to build algorithms that can get input data and leverage statistical analysis to predict an acceptable output value.

*Machine learning is a method of data analysis that automates analytical model building. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention"*

## Advantages of ML

- ML is useful when large scale of data is available
- Machine learning is used to handle multi-dimensional and multiple types of data in dynamic environments.
- Social media is using machine learning to push relevant advertisements. These advertisements are based on users past search behavior.

## Machine Learning



This course will provide an overview of many additional concepts, techniques and algorithms in machine learning, from basic classification to decision trees and clustering. By completing this course, you will learn how to apply, test and interpret machine learning algorithms.



# R-LANGUAGE

## About R - Language

R is an open source programming language which is mainly used for statistical computing. It is totally free, so unlike other paid software, R can be customized according to our requirements. R is a very unique language and has some really interesting features which aren't present in other languages so R has become very popular in recent years. The biggest benefits to open source software like R, are upgrades which happens regularly.



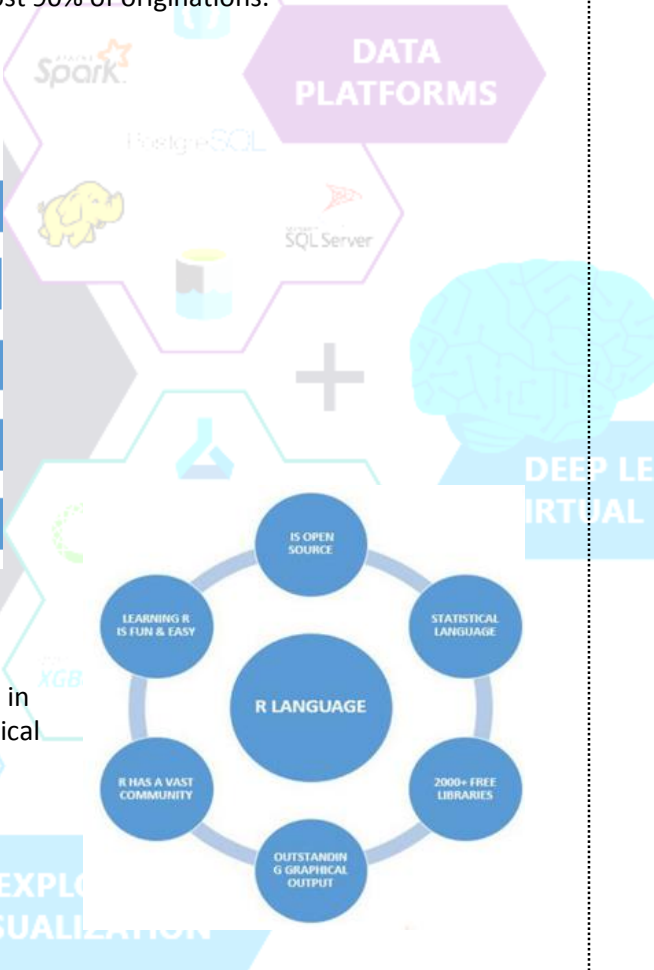
## Why this course?

In today's world an average of 2 Million users worldwide are using R to solve statistics and data science problems. Every year R user base is increasing rapidly as it is one of the most highly regarded, highly ranked, and fastest growing language. As a result R is used in almost 90% of originations.

## Applications of R



This R training course provides you detailed learning curve which in turn helps in data science, data analytics, data acquisition, statistical methods & machine learning.



## What you'll learn in this course?



The course will help you understand basic coding in R with all the basic functionalities; like how to use R console, assign variables, analyze vectors, matrices, factors, frames, and lists, managing data and basic statistical functions. You will also learn advanced statistical techniques, both supervised and un-supervised learning using R and get ready for a career in business analytics.

# R- COURSE CONTENTS



## LEVEL 1 - BEGINNERS COURSE

Introduction & Preliminaries
*R Environment
*Using R Interactively
*R commands, case sensitive etc.,
Simple manipulations; numbers & vectors
*Vectors & Assignment
*Vector Arithmetic
*Generating regular sequences
*Logical vectors & Index vectors
*Missing values
*Character values
Arrays & Matrices
*Array indexing
*Index matrices
*Forming partitioned matrices
*Frequency tables from factors
*The concatenation function with arrays
Lists & data frames
*Constructing & modifying Lists
*Working with data frames
*Managing search path
Reading data from files & different sources
Checking normality/Normal distribution
Frequency distributions & Contingency Tables
Binomial distributions
Skewness & Kurtosis
IQR & Empirical rule for symmetric distributions
Probability distributions
Proportion tables & Confidence Interval

## LEVEL 2 - MASTERS COURSE

Testing of Hypothesis
T-test
F-test
Sampling distributions
Binning
Control Charts
Bar-plot
Pie chart
Chi-Square
Correlation
Cluster Analysis
Principal Component Analysis
Factor Analysis
Regression Analysis
* Simple Linear Regression
* Multiple Linear Regression
* Logistic Regression
* Regularization
* ANOVA
Machine Learning Techniques
*Random Forests
*Decision Trees
*Artificial Neural Networks
*Support Vector Machines
*K-Nearest Neighbor
*Ensemble
*Gradient Boosting
*R-Shiny
<b>Others (FAQ &amp; TEST)</b>

# PYTHON

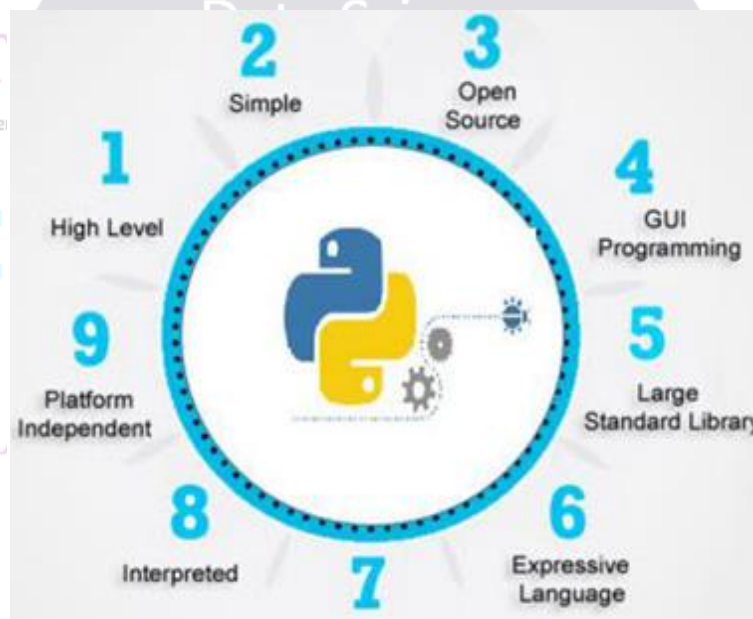
## About Python

Python is a general-purpose programming language which can be used for a wide variety of applications. Python is a completely free open source platform which can be customized as per business requirements. Python is great tool for data analysis, artificial intelligence & scientific computing. Since Python has an enormous user community, no matter what problem you're trying to solve, chances are that there is already a solution.



## Why this course?

Python is a great language for the beginner programmers. The best reason to learn Python course is its inherent simplicity, which makes it one of the easiest programming languages to learn. Python is flexible, powerful and easy to use with great features. One of the most important features of python is its rich set of utilities and libraries for data processing and analytics tasks. In the current era of big data, python is gaining more popularity due to its easy-to-use features which supports big data processing.





### What you'll learn in this course?

The course will help you understand basic coding in R with the basic functionalities; such as Python layout, importance of spyder, Python operators, conditional statements, loop concepts, data structure and working on basic statistical functions. The course also covers advanced statistical techniques, both supervised and un-supervised learning using R and will equip you with advanced data science skills.

DEVELOPMENT  
TOOLS

DATA  
PLATFORMS

DATA INGESTION  
TOOLS

ML &  
AI TOOLS

DATA EXPLORATION  
& VISUALIZATION



## PYTHON – COURSE CONTENTS



LEVEL 1 - BEGINNERS COURSE
<b>Python Overview</b>
*History, Why Python?
<b>Setting up Python</b>
*Environment Setup & Variables
*Getting Python & Setting Path
<b>Language Features</b>
*My first Python program
*Identifiers
*Reserved Words
*Lines and Indentation
*Command Line Arguments
<b>Operations on Numbers</b>
*Arithmetic Operations & Number Methods
<b>Operations on Strings</b>
*Accessing a value from Strings
*Updating Strings & String Methods
<b>Operations on Date and Time</b>
<b>Python Operators</b>
*Comparison & Assignment Operators
<b>Lists, Tuples and Dictionaries</b>
*Accessing , Updating & Deleting elements
<b>Conditional Statements</b>
*IF, ELSE statements & Nested IF statements
<b>Loops Concepts</b>
*While, For, Break, Continue etc.
<b>Functions &amp; Generators</b>
<b>Operations on Data structures</b>
*List processing & Conversions from 1 type to other
<b>Text processing using RegEx</b>
<b>Modules and Packages</b>
*Import Statement
*Executing and Locating Modules
<b>Exception Handling</b>
Descriptive Statistics & Frequency

LEVEL 2 - MASTERS COURSE
<b>Introduction to Python analytical libraries</b>
<b>Inferential Statistics</b>
*Hypothesis Testing
*Confidence Intervals
*T-Test
*Contingency Tables
*Cross Tabs
*Chi-Square significance test
*Correlation
<b>Charts &amp; Graphs</b>
*Bar, Line, Pie etc.
<b>Working with Pandas</b>
*Importing and Exporting flat files
*Operations on Pandas Data frames
*Summary Statistics
*Sub setting the Data frames
*Handling missing values in the Data frames
<b>Working with Numpy Arrays</b>
<b>Machine learning concepts</b>
*Machine Learning with Supervised
*Machine Learning with Unsupervised
*Introduction to Deep Learning
<b>Clustering</b>
*Hierarchical Clustering
* K-means
<b>Regression</b>
*Simple Linear & *Multiple Linear Regression
* Logistic Regression
<b>Classification</b>
*Decision trees
* Random forest
* Gradient Boosting
<b>Time series forecasting</b>
<b>Others (FAQ &amp; TEST)</b>

## Experiential Learning Platform

Our courses are designed for an **experiential learning** experience so that students are better prepared for **job placements**.

*Hands-on training* for better learning and confidence building



### Assignments

Assignment based learning to improve: problem solving skills, innovative thinking and collaborative working.

### Case Studies

To understand how Data Science is applied in industries such as Automotive, Retail, Pharma, Telecom and Banking



### Experience Sharing

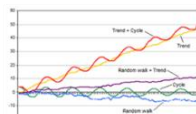
Practising Data Science professional share their thoughts and experience

Our courses will help students to acquire a good conceptual understanding of how analytics is applied in **real life scenarios** and will equip them with practical knowledge of applying analytics, using the tools covered in our curriculum, from business challenge definition to decision making.

### Business Challenge

Problem Definition

Statistical Modelling



SQL



Data Extraction, Transformation & Loading

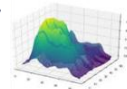
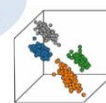
R or Python

Excel

Analytics  
BI and BA  
Reports

Excel/  
Tableau

Visualization  
Adhoc Queries  
Dashboards



## Decisions

## Course Options

Our courses are modular so students can choose a single module or any combination of five modules based on their interests. Some of the popular Course options are:

### Data Science Course

This course comprises of five modules **SQL, Excel, Tableau, R and Python.**

1. Data Handling - Data acquisition, cleaning & aggregation with MS SQL
2. Data manipulation including transformation and processing of data with SQL
3. Basic reporting and exploratory analysis with Excel
4. Creating Dashboards and analytics with Excel
5. Architecting & business reporting with Tableau
6. Charts & visualization techniques with Tableau
7. Basic statistical & mathematical foundation for Data Science with "R" & Python
8. Advanced statistical methods for inference and prediction with R & Python
9. Model creation & validation with R & Python
10. Machine Learning techniques with R & Python

**Duration** - 120 hours for online study and practice sessions

### Business Analytics Course

This course comprises of three modules **SQL, Excel and Tableau.**

1. Data Handling - Data acquisition, cleaning & aggregation with MS SQL
2. Data manipulation including transformation and processing of data with SQL
3. Basic reporting and exploratory analysis with Excel
4. Creating Dashboards and analytics with Excel
5. Architecting & business reporting with Tableau
6. Charts & visualization techniques with Tableau

**Duration** - 70 hours for online study and practice sessions

### Analytics and Machine Learning Course with Python or R

This course includes any one module that is **Python or R**

1. Basic statistical & mathematical foundation for Data Science with Python or R
2. Model creation & validation Python or R
3. Advanced statistical methods for inference and prediction with Python or R
4. Machine Learning techniques with Python or R

**Duration** - 30 hours for online study and practice sessions

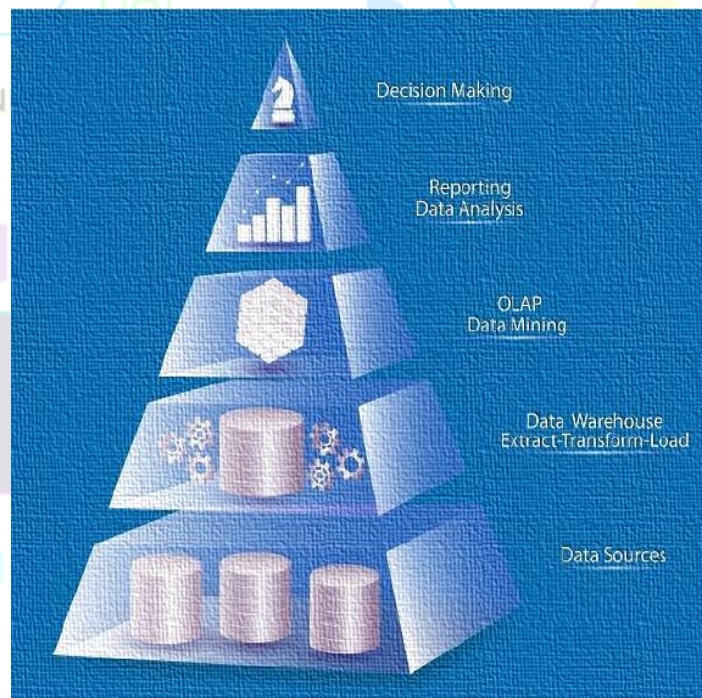
## Course Deliverables

Our courses have been developed by Industry experts and are hosted on a robust Learning Management System (LMS) on the internet. The content is available in the form of slides, notes, reading material and links, FAQs, test papers and case studies. The LMS offers detailed information and statistics for faculty and students to monitor the progress made.

## Certification



On completion of the online training program and workshop sessions for Level 1 and Level II, students will have to take a written test. On successfully clearing these tests students will be awarded a certificate, issued jointly by the Institute and Kaalp Consulting.



## Placement Services

We will be providing placement assistance to students who complete our course. We have arrangements with companies that do campus recruitment and job portals that specialize in placing fresh graduates.

## Course Fees

Our course fees are very reasonable. Please contact us on [info@kaalp.com](mailto:info@kaalp.com) to know more.

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