

# Boyinasoft





## FOUNDERS DESK

Boyina Soft is premier training institute where our charter is to provide learning on Cloud and Decision Science. Founded in 2017, Boyina Soft strives to create an environment for students to learn, discuss, and practice all knowledge acquired in training sessions.



**Vision:** To help students learn the promise of data to make the world more prescriptive and more personal.



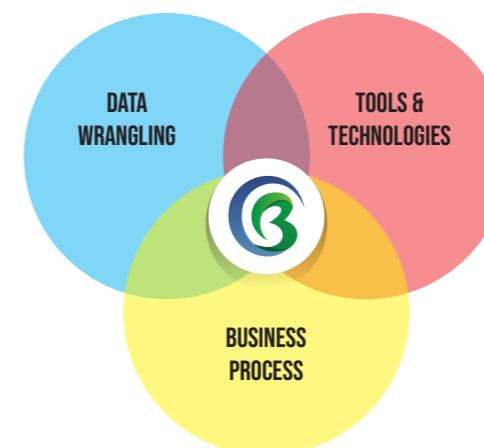
**Mission:** Driven by tomorrow's challenges on data, our pedagogy imparts the value of continuous learning. We are passionate to create a positive learning experience so that our students become more successful in this ultra-competitive professional world. We push the thought process for developing scenarios and simulation rather than "singleton solution".



**Strategy:** We complete each module with a real-life project to ensure our students build muscle memory of data into their thought process. At the end of the syllabus, we have capstone project to help students broaden the thought process which is key to be successful in analytics and data science world. At the end, we help students to build their resume, provide interview ready questions and use our industry connection to help them to secure a job.

Our founders have extensive data & analytics experience in Bay area fortune 100 companies. From Cisco, Symantec, Veritas, HP, Nokia to Western Digital. Shashi is a graduate from NITIE – National Institute of Industrial Engineering (a premier institute in India) & he is also a faculty in leading US University– UC Davis and Santa Clara University for their graduate program of MBA Analytics. This helps us to keep our course curriculum relevant with global standard.

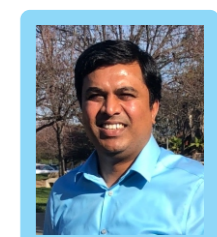
All our faculties come with industry relevance of data with varied experience in different verticals of Manufacturing, Networking, Consulting and horizontal domain of Sales, Marketing, Finance, Compensation, Order Management etc. We provide in-depth analytics tools experience on cloud based tools.



Srinivas Sirigirisetty  
Co-Founder



Shashi K  
Co-Founder



Suresh Munga  
Co-Founder

## TABLE OF CONTENTS

- Power bi \_\_\_\_\_ ●
- Adf \_\_\_\_\_ ●
- Data science with R \_\_\_\_\_ ●
- Aws Separate, DevOps Separate \_\_\_\_\_ ●
- Microsoft Azure \_\_\_\_\_ ●
- Data science with Python \_\_\_\_\_ ●
- Sql, Python \_\_\_\_\_ ●



# Power BI



## Introduction to Power BI

### What is BI?

- Business Intelligence
- Self-Service BI

### Components of Power BI

- Power BI Desktop
- Power Query Editor
- Power BI Service

### Power BI Desktop:

- Connect to data
- Importing Data from Excel
- Create a data model
- Create visuals, such as charts or graphs, that provide visual
- Creating Measures

### Power Query Editor

#### Data Cleaning

- Renaming the Table and Column Names
- Changing the Data Types
- Removing Top Rows, Blank Rows, Errors, Duplicate Rows
- Promoting First Row to Headers
- Filtering Data, Removing, Reordering and Merging Columns
- Replacing Values, Splitting Columns
- Transform Data, Applied Steps

#### Data Mashup

- Custom Columns, Conditional Columns
- Merging and Append Tables
- Advance Query Editor, Index Columns
- Add Column as new Query
- Enable Data load, Enable Data Refresh, Close and Apply
- Filtering Data, Removing,

#### Reordering and Merging Columns

- Replacing Values, Splitting Columns
- Transform Data, Applied Steps

### Power BI Desktop

#### Types of Connections

- Import
- Direct Query
- Live Connection

#### Calculated Columns

- Creating Calculated Columns, DAX to Create new Columns
- CONCATENATE, COMBINEVALUES DAX Functions

#### New Measures

- Creating New Measures
- Implicit and Explicit Measures
- Creating measures using SUM and SUMX Functions
- Difference between SUM and SUMX Functions
- Calculating % of Totals

### Creating Basic Visuals

#### Data Cleaning

- CARD Visual
- Clustered Bar Chart
- Clustered Column Chart, TreeMap
- Stacked Bar Chart
- Pie Chart, Donut Chart
- Area Chart, Stacked Area Chart
- Funnel Chart, Gauge Chart
- Maps
- Multi-Row Card
- KPI
- Table
- Matrix

- Importing Custom Visuals from marketplace

- Using Custom Visuals

### Power BI Service

- Myworkspace and APP Workspace
- Creating APP Workspaces
- APP Workspaces Access
- Difference between multiple roles like Admin, Member, Contributor and Viewer
- Publishing Reports to the APP Workspace
- Sharing and Subscribing to the Reports
- Creating Dashboards
- Pinning Tiles
- Creating APPS
- Publishing APPS
- Get APPS
- Giving Access to the APPS for the users

### DAX Aggregation Functions

- SUM, SUMX
- COUNT, COUNTA, DISTINCT COUNT
- COUNTBLANK, COUNT ROWS
- DISTINCT COUNT NO BLANK
- MIN, MAX, AVERAGE
- MINA, MAXA, AVERAGE A
- MINX, MAXX, AVERAGE X

### DAX Text Functions

- CONCATENATE, COMBINEVALUES
- LOWER, UPPER, MID
- EXACT, FIND, SEARCH
- FIXED, LEFT, RIGHT, LENGTH
- REPLACE, SUBSTITUTE, REPEAT
- ROUND, ROUNDUP, ROUND DOWN

### DAX Functions Intermediate Level

#### Date and Time Functions:

- CALENDAR

#### FILTER Functions:

- ALLSELECTED
- FILTER
- LOOKUPVALUE
- SELECTEDVALUE

#### Logical Functions:

- IF, SWITCH
- AND, OR,
- BLANK
- UNION

### DAX Functions Advance Level

#### Time Intelligence Functions:

- DATESBETWEEN, DATESINPERIOD
- TOTALYTD, TOTALQTD, TOTALMTD
- DATEADD

#### What-if Parameter

- RANKX Functions

### Dynamic Reports

- Bookmarks
- Buttons
- Sync Slicers
- Selectionpane
- Tooltips and Report Page Tooltips
- Actions through Buttons
- Edit Interactions
- Slicers, Filters and Drillthrough reports
- Buttons
- Mobile Layout and Desktop Layout
- Conditional formatting
- Organizing the visuals, images on

the page

- Page layouts, Themes etc.

### RLS (Row Level Security)

- Assigning users to the roles in the Power BI Service for the Static RLS

### Content Packs. Gateways

- Types of Gateways
- Installing and Configuring the Gateways
- Scheduling the Refresh in Power BI Service
- Creating Content Packs
- Sharing Content Packs
- Power BI Datasets

### Power BI Service

- Dashboards, Tiles, Reports, Datasets, workbooks
- Workspaces and Access Restrictions
- Get Data through Power BI Service
- Publishing and Unpublishing APPS
- Power BI Report Server

### P3 Live Projects

- Sales Analytics
- Marketing Analytics
- Hospitality Reports

### Resume Preparation and Discussing the Interview Questions and Mock

- Resume Preparation
- Interview Questions
- Mock Interview

## Trainer Profile

# Srinivas Sirigirisetty

Srinivas has over 15 years of IT experience in Business Intelligence & BI Tools like Power BI, Tableau, OBIEE & Informatica. He has had total 5 years of experience in Corporate Training and have been training Students for past 4 years.



## WHAT OUR STUDENTS SAY...

IT WAS A FANTASTIC EXPERIENCE WITH BOYINASOFT. THE TRAINER OF DEVOPS WERE HELPFUL AND KIND, THE TEAM VERY NICE TOO. ALL THE ATMOSPHERE WAS MORE THAN APPRECIATED. I SPENT GREAT MOMENTS THERE. THANKS A LOT AGAIN !!!

# Devops Architect Training

## Basic of linux Admin

- Introduction to UNIX & LINUX
- Installation of Linux
- Access the command line
- Manage files from the command line
- Advanced File Permissions
- Disk Partitioning and Mounting File System
- Shell Scripting

## I. AWS DevOps

### a). CodeDeploy

Deploy an webserver on EC2 instance automatically.

### b). Code Commit

- Creating Branch and commit
- Merging of code

### c). Elastic Container Service

- Upload custom image into ECR
- Create containers as clusters

### d). CodePipeline

- CI/CD pipeline to do build, test, Deploy and package.

## II. Devops

### a). Version Control with Git

- What is version control?
- What is Git? / Why Git for your organization?

- Installing Git and Working with Remote Repositories

- Branching and Merging in Git

- Git workflows / Git cheat sheet

- Pulling and Pushing to central repo with GITHUB

### b). Continuous Integration using Jenkins

- What is version control?
- What is Git? / Why Git for your organization?

- Installing Git and Working with Remote Repositories

- Branching and Merging in Git

- Git workflows / Git cheat sheet

- Pulling and Pushing to central repo with GITHUB

### c). Configuration Management with Ansible

- Introduction to Ansible
- Ansible Installation
- Configuring Ansible Roles
- Write Playbooks
- Executing adhoc command
- Setup Kubernetes 3 node

- Cluster with Ansible Playbook

### d). Containerization with Docker

- Introducing Docker
- Understanding images and containers
- Running Hello World in Docker
- Container Life Cycle
- Sharing and Copying
- Base Image
- Docker File
- Publishing Image on Docker Hub

### e). Containerization with Docker: Ecosystem and Networking

- Use Docker Compose to create a WordPress site
- Start Containers on a Cluster with Docker Swarm
- Docker Network Types
- Docker Container Networking

### f). Containerization using Kubernetes

- Introduction to Kubernetes and Minikube(Tool)
- Installing Kubernetes
- Container Orchestration / Container Management using Kubernetes



- Managing Workloads in Kubernetes (ReplicaSets and Deployments)

- Overview of Services

- Volume Management

- Auto-scaling

- Load-Balancing using Ingress

- Deploying and scaling an application using Minikube locally

### g). Chef for configuration management

- Overview of Chef
- Chef Configuration Concepts
- How to configure knife Execute some commands to test connection between knife and workstation

- Create organization and Add yourself and node to organization

- Create a server and add to organization

- Node Objects and Search

- How to create and Add servers to environments

- Create and Add Roles to organization

- Understanding and Creating of Attributes

### h). Continuous Monitoring with Nagios

- Introduction to Continuous Monitoring

- Introduction to Nagios

- Installing Nagios

- Nagios Plugins(NRPE) and Objects

- Nagios Commands and Notification

## Trainer Profile

### Vishwanath

having 14+ exp in IT infra and Cloud.

(Networking, Virtualization, Storage, Private Cloud and Public Cloud Setup).

I'm Currently working as Senior Cloud Solution Architect consultant



## WHAT OUR STUDENTS SAY...

IT WAS A FANTASTIC EXPERIENCE WITH BOYINASOFT. THE TRAINER OF DEVOPS WERE HELPFUL AND KIND, THE TEAM VERY NICE TOO. ALL THE ATMOSPHERE WAS MORE THAN APPRECIATED. I SPENT GREAT MOMENTS THERE. THANKS A LOT AGAIN !!!



# ADF TRAINING



## Introduction to Azure

- Azure Account Creation
- Overview of Azure Portal
- Creation of Resource and Resource Groups
- Setting up an Azure Storage

## Introduction to AZURE Sql

- AZURE SQL Server
- AZURE SQL Database
- AZURE SQL Datawarehouse
- Accessing AZURE SQL Database
- Firewall Settings

## Introduction to ADF (Azure Data Factory)

- What is ETL?
- Overview of ADF
- Provisioning Data Factory
- Data Factory Navigation

## Copy data from an on-premises SQL Server

## database to Azure Blob storage

- Download and Install SQL Server Management Studio
- Creating New Container
- Pinning Resource to Dashboard
- Deploying Data Factory
- Author & Monitor
- Integration Runtime Setup
- Publish All
- Test run the pipeline.
- Monitor the pipeline and activity runs.

## Copy data from Azure Blob storage to a SQL database

- Creating SQL Table in AZURE SQL Database
- Creating Pipeline
- Creating Linked Service
- Validate the Pipeline
- Debug and publish the pipeline

- Trigger the pipeline manually
- Creating New Trigger
- Trigger the pipeline on a schedule

## Copying Multiple tables in bulk

- Incrementally load data from an Azure SQL database to Azure Blob storage
- Incrementally load data from multiple tables in SQL Server to an Azure SQL database
- Incrementally load data from Azure SQL Database to Azure Blob Storage using change tracking information
- Incrementally copy new and changed files based on Last Modified Date by using the Copy Data tool

## Provision the Azure-SSIS Integration Runtime in Azure Data Factory

- Configure SSIS Integration Runtime
- Lift-and-shift existing SSIS

## packages to execute in Azure

- Deploy SSIS packages
- Customize setup for the Azure-SSIS integration runtime

## Roles and permissions for Azure Data Factory

- Roles and requirements
- Set up permissions
- Data Factory Contributor role
- Custom scenarios and custom roles
- Understand role definitions

## Data Flow Transformations

- Aggregate
- Alter row
- Conditional split
- Derived column

- Exists
- Filter
- Join
- Lookup
- New branch
- Pivot
- Select
- Sink
- Sort
- Source
- Surrogate key
- Union
- Unpivot

## Trainer Profile

### Srinivas Sirigirisetty

Srinivas has over 15 years of IT experience in Business Intelligence & BI Tools like Power BI, Tableau, OBIEE & Informatica. He has had total 5 years of experience in Corporate Training and have been training Students for past 4 years.



## WHAT OUR STUDENTS SAY...

THE WHOLE EXPERIENCE WAS REALLY CHALLENGING AND DEMANDING. THE TRAINER IS ALWAYS THERE EVERY STEP OF THE WAY. ANYONE WHO IS LOOKING FOR PROFESSIONAL DEVELOPMENT AND PRACTICAL SKILLS IN AUTOMATIC DOCUMENT FEEDER(ADF), BOYINASOFT IS THE PLACE TO JOIN.

# AWS Solution Architect Associative Training



## Introduction to Cloud Computing

- What is cloud computing?
- History of cloud
- Different vendors for Cloud
- Cloud main objectives
- IaaS, PaaS, SaaS Overview
- AWS Architecture
- AWS Management Console
- Setting up of the AWS Account
- Features of AWS cloud

## Basic of Networking

- What is Networking
- IP address Basic
- Classess of IP
- Subnetting
- Public / Private IP
- Natting/ Patting
- IP V6 Implementation

## Basic of linux Admin

- Introduction to UNIX & LINUX
- Installation of Linux
- Access the command line
- Manage files from the command line
- Advanced File Permissions
- Disk Partitioning and Mounting File System

## AWS – Solution Architect – Course

### a). VPC (Virtual Private Cloud)

- Configuring VPC
- Configuring Subnet & VPC
- Configuring Route Table
- Configuring Internet Gateway

for VPC

- Egress only Internet Gateway
- NAT Gateway
- Elastic IP
- VPC Peering
- Endpoint

### b). Security

- Security Groups
- Network ACL

### c). EC2 Cloud Compute services

- Launching EC2 Instance
- Understanding Security Key pair
- Configuring dedicated Host
- Configure On-demand instances
- Spot instances
- Reserved instances
- EC2 Reserved Instance Marketplace
- Calculate the ROI for diff Instance
- Creating custom AMI

- Creating snapshots

### d). Elastic Block Store

- Creating and deleting volumes
- Attaching and detaching volumes – Windows
- Mounting and Unmounting the attached volume – Linux

### e). VPN Connections

- Customer Gateway
- VPG Gateways &
- VPN Connections
- Client VPN

### f). Route 53

- Traffic Management
- DNS Management
- Traffic Policy & Endpoint
- Domain Name Registration

### g). Storage & Content Delivery

- Configure S3 Bucket
- Static Web Hosting via S3 Bucket
- S3 bucket policy
- S3 Replication
- Configure Glacier with Versioning on S3
- Cloud front Configuration

### i). Security Identify & Compliances

- a. Amazon IAM Overview

- Users and Groups
- Permissions and Policies
- Roles
- Access Key/Security Key
- Creating admin groups via UI and the command line
- CLI Commands

### j). Monitoring

- Cloudwatch
- Alerts
- SNS -- Notification
- Events

### k). Scaling and Load Distribution in AWS

- Configuring Auto Scaling
- Creating Cloud watch for Optimization
- Creating Load Balancing with application
- Classic Load Balancers

### l). Databases

- RDS
- Authorizing access to the DB

via DB Security Groups

- Setting up automatic backups
  - Dynamo DB
- ### m). Multiple AWS Services and Managing the Resources' Lifecycle
- Simple Email Service (SES)
  - Simple Queue Service(SQS)

### n). Migration

- Storage Gateway
- Understanding Snow ball Migrations
- EFS File Syn
- EC2 export and import
- External Migration Tools

## Trainer Profile

### Vishwanath

having 14+ exp in IT  
infra and Cloud.

(Networking,  
Virtualization, Storage,  
Private Cloud and Public  
Cloud Setup).

I'm Currently working as  
Senior Cloud Solution  
Architect consultant



## WHAT OUR STUDENTS SAY...

I'M REALLY HAPPY I'VE CHOSEN TO DO THE COURSE AT BOYINASOFT. THE COURSE IS WELL-STRUCTURED AND HIGHLY INFORMATIVE, THE TRAINERS ARE PROFICIENT AND SUPPORTIVE. HUGE THANKS TO VISWANATH SIR!

# AZURE Administration Training



## Introduction to Cloud Computing

- What is cloud computing?
- History of cloud
- Different vendors for Cloud
- Cloud main objectives
- IaaS, PaaS, SaaS Overview
- AWS Architecture
- AWS Management Console
- Setting up of the AWS Account
- Features of AWS cloud

## Basic of Networking

- What is Networking
- IP address Basic
- Classess of IP
- Subnetting
- Public / Private IP
- Natting/ Patting
- IP V6 Implementation

## Microsoft Azure Infrastructure and Deployment

### a). Manage Subscriptions and Resources

- Overview of Azure Subscriptions Deploy Web Apps
- Billing & Azure Policy
- Azure Users and Groups
- Role-based Access Control
- ARM templates
- Resource Groups

### b). Monitoring and Diagnostics

- Exploring Monitoring Capabilities in Azure
- Azure Alerts
- Azure Activity Log
- Introduction to Log Analytics
- Querying and Analysing Log Analytics Data

### c) Configuring and Managing Virtual Networks

- Introducing Virtual Networks
- Creating Azure Virtual Networks
- Review of IP Addressing
- Network Routing
- Azure DNS Basics
- Implementing Azure DNS
- Introduction to Network Security Groups
- Implementing Network Security Groups and Service Endpoints
- Intersite Connectivity (VNet-to-VNet Connections)
- Virtual Network Peering

### d) Deploying and Managing Virtual Machines

- Azure Virtual Machines Overview
- Planning Considerations
- Overview of the Virtual Machine Creation Overview
- Creating Virtual Machines in the Azure Portal

- Creating Virtual Machines (PowerShell)
- Creating Virtual Machines using ARM Templates
- Deploying Custom Images
- Deploying Linux Virtual Machines
- Overview of Virtual Machine Configuration
- Virtual Machine Networking
- Virtual Machine Storage
- Virtual Machine Availability
- Virtual Machine Scalability
- Applying Virtual Machine Extensions
- Backup and Restore
- Monitoring Virtual Machines

### e). Implementing and Managing Storage

- Azure storage accounts
- Virtual machine storage
- Blob storage
- Azure files
- Structured storage
- Data replication
- Azure Storage Explorer
- Shared access keys
- Azure backup
- Azure File Sync
- Azure Content Delivery Network
- Import and Export service

- Monitoring Storage
- ### f). Manage Identities
- Azure Active Directory Overview
  - Self-Service Password Reset
  - Azure AD Identity Protection
  - Integrating SaaS Applications with Azure AD
  - Azure Domains and Tenants
  - Azure Users and Groups
  - Azure Roles
  - Managing Devices
  - Azure Active Directory Integration Options
  - Azure AD Application Proxy

### g). Migration

- Overview of Cloud Migration
- Azure Migrate: The Process
- Overview of ASR
- Preparing the Infrastructure
- Completing the Migration Process
- VMWare Migration
- System Center VMM Migration: Video Walkthrough

### h). Implementing and Managing Application Services

- Introducing Azure AppService
- App Service Environments
- Deploying Web Apps
- Managing Web Apps
- App Service Security
- Scale Up and Scale Out
- Autoscale and Grow out
- Optimizing Bandwidth and Web Traffic

## Trainer Profile

### Vishwanath

having 14+ exp in IT infra and Cloud.

(Networking, Virtualization, Storage, Private Cloud and Public Cloud Setup).  
I'm Currently working as Senior Cloud Solution Architect consultant



## WHAT OUR STUDENTS SAY...

IT IS ONE OF MY BEST EXPERIENCES IN MY LIFE AND I COULD LEARN REAL-TIME PRACTICAL TECHINCS IN AZURE. ALTHOUGH I EXPERIENCED ALL THE MODULES DURING THE COURSE, BUT IT WORTH AND WAS VERY USEFUL FOR MY CAREER.



# DATA SCIENCE TRAINING



## Introduction to Data Science (Duration-1hr)

- What is Data Science?
- What is Machine Learning?
- What is Deep Learning?
- What is AI?
- Data Analytics & it's types

## Introduction to Python (Duration-1hr)

- What is Python?
- Why Python?
- Installing Python
- Python IDEs
- Jupyter Notebook Overview

## Python Basics (Duration-5hrs)

- Python Basic Data types
- Lists
- Slicing
- IF statements
- Loops
- Dictionaries
- Tuples
- Functions
- Array
- Selection by position & Labels

## Python Packages (Duration-2hrs)

- Pandas

- Numpy
- Sci-kit Learn
- Mat-plot library
- Importing data (Duration-1hr)
- Reading CSV files
- Saving in Python data
- Loading Python data objects
- Writing data to csv file

## Manipulating Data (Duration-1hr)

- Selecting rows/observations
- Rounding Number
- Selecting columns/fields
- Merging data
- Data aggregation
- Data munging techniques

## Statistics Basics (Duration-11hrs)

- Central Tendency • Mean
- Median
- Mode
- Skewness
- Normal Distribution
- Probability Basics
- What does mean by probability?
- Types of Probability
- ODDS Ratio?

- Standard Deviation
- Data deviation & distribution
- Variance
- Bias variance Trade off
- Underfitting
- Overfitting
- Distance metrics
- Euclidean Distance
- Manhattan Distance
- Outlier analysis
- What is an Outlier?
- Inter Quartile Range
- Box & whisker plot
- Upper Whisker
- Lower Whisker
- Catter plot
- Cook's Distance
- Missing Value treatments
- What is a NA?
- Central Imputation
- KNN imputation
- Dummification
- Pearson correlation
- Positive & Negative correlation
- Classification
- Confusion Matrix
- Precision

- Recall
- Specificity
- F1 Score
- MSE
- RMSE
- MAPE
- Correlation
- Error Metrics Duration-3hr
- Regression

## Machine Learning

### Module 9: Supervised Learning (Duration-6hrs)

- Linear Regression
- Linear Equation
- Slope
- Intercept
- R square value
- Logistic regression
- ODDS ratio
- Probability of success
- Probability of failure
- ROC curve
- Bias Variance Tradeoff

### Module 10: Unsupervised Learning (Duration-4hrs)

- K-Means
- K-Means ++
- Hierarchical Clustering

### Module 11: Other Machine Learning algorithms (Duration-10hrs)

- K – Nearest Neighbour
- Naïve Bayes Classifier
- Decision Tree – CART
- Decision Tree – C50
- Random Forest

## Trainer Profile

### Prashanth

is having 9+ years of experience working in this field of Data Science and Python. Currently, he is working in a top-level MNC as a Data Scientist.



## WHAT OUR STUDENTS SAY...

THANK YOU ALL FOR BEING SO SUPPORTIVE AND ENCOURAGING THROUGHOUT THE COURSE PERIOD. IT WAS A WONDERFULLY INFORMATIVE EXPERIENCE AND A PLEASURE TO LEARN FROM YOU. HOPE TO SEE YOU ALL AGAIN.

# Data Science with R Training



## 1). Introduction to Data Science & R

- Basic idea about data science
- Typical problems that can be solved by data science
- How industry uses data science
- Business Intelligence vs Business Analytics
- Common tools used in the industry for data science
- R, Rstudio
- Data science problem solving methodology
- R programming concepts
- Data types
- Arithmetic, logical, relational operators
- Creating functions
- Conditional statements and looping
- Installing packages
- Reading data into R
- Exploratory data analysis
- Data manipulation
- Plotting using ggplot2
- Important packages in R – ggplot2, caret, dplyr, tidyr, stringr, lubridate

## 2).Statistical Inference

- What is data?
  - Different types of data
  - Frequency distributions
  - Measures of central tendency
  - Measures of variance
  - Understanding different types of probabilities
  - Understanding different types of probability distributions
  - Central limit theorem
  - Understanding sampling distribution
  - Understanding confidence intervals and confidence level
  - Understanding what is hypothesis testing with focus on null and alternate hypothesis
  - Learning different types of hypothesis tests
  - End module project
- ## 3).Data Preparation & Regression Models
- Importance of data preparation
  - Identify outliers and missing data
  - Data cleaning techniques –

outlier treatment, missing data treatment, scaling and centering data, data transformation, creating a valid data, one-hot encoding

- Analysis of Variance (ANOVA)
- Dimensionality reduction techniques – Principal component analysis (PCA) & Factor analysis (FA)
- Linear Regression performance metrics
- Linear Regression
- End module project

## 4).Data Mining

- Supervised and Unsupervised learning techniques
  - Regression and Classification techniques
  - Unsupervised ML techniques – K-means clustering, Hierarchical clustering, Association rules
  - Supervised ML techniques – Decision trees, CART, CHAID, Random Forest, Neural Network
  - Performance metrics of classification models
  - End module project
- ## 5).Predictive Analytics
- Logistic Regression

- Linear Discriminant Analysis (LDA)
- K Nearest Neighbours (KNN)
- Naïve Bayes
- End module project

## 6).Machine Learning

- Text analytics using Twitter feeds
- Bias-Variance trade-off
- Address model complexity using Regularization techniques – LASSO, RIDGE, ELASTIC NET
- Ensemble modelling – bagging and boosting
- Adaptive boosting (ADABOOST), Gradient boosting (GBM), Extreme gradient boosting (XGBOOST)
- K-fold cross validation technique
- Under and oversampling technique
- End module project

## 7).Time-series Forecasting

- Understanding univariate time series
- Understanding time series components
- Understanding stationary time series and how it is done
- Time series differencing and moving average
- Forecasting using Exponential Moving Average, Holt's Method, Holt-Winter Method
- Forecasting using Auto Regressive Integrate Moving Average (ARIMA) models
- End module project

## 8).Capstone Project

- Capstone project is mandatory for successful completion of project

## Trainer Profile

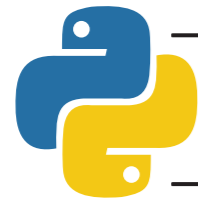
### Mrinal Zalpuri

is an Online Data Science Faculty at Great Learning and a technically competent, PMP certified seasoned delivery manager, people champion with experience in successfully planning, executing and managing new products and services in IT domain, from ideation to delivery. He is well versed with various phases of software development lifecycle.



## WHAT OUR STUDENTS SAY...

THANK YOU ALL FOR BEING SO SUPPORTIVE AND ENCOURAGING THROUGHOUT THE COURSE PERIOD. IT WAS A WONDERFULLY INFORMATIVE EXPERIENCE AND A PLEASURE TO LEARN FROM YOU. HOPE TO SEE YOU ALL AGAIN.



# Python Training

## Introduction to Python

- a). Interpreter and Environment setup
- b). Basic usage of python
- c). Variable types and assignments
- d). Example problems

## Control Flow Loops

- a). If Statements
- b). For Statements
- c). The range(), xrange() functions
- d). Break, Continue and Pass Statements, and else Clauses on Loops
- e). Functions and its definitions
- f). Example problems

## Data Structures

- a). Lists
- b). Tuples
- c). Sets
- d). Dictionaries
- e). Strings
- f). Looping techniques
- g). Example problems

## Modules

- a). Basic usage of modules
  - i. datetime
  - ii. re
  - iii. timeit
  - iv. random
  - v. urllib, urllib2, requests
- b). Custom modules
- c). Packages
- d). Example problems

## Modules

- a). Basic usage of modules
  - i. datetime
  - ii. re
  - iii. timeit
  - iv. random
  - v. urllib, urllib2, requests
- b). Custom modules
- c). Packages
- d). Example problems

## Input and Output

- a). Input functions
- b). File operations
- c). Output formats
- d). Example problems

## Errors and Exception handling

- a). Syntax Errors
- b). Exceptions
- c). Handling Exceptions
- d). Raising Exceptions
- e). Userdefined Exceptions
- f). Example problems

## Classes

- a). Object and Methods
- b). Classes and Objects
- c). Inheritance
- d). Iterators
- e). Generators
- f). Example problems

## Advance topics

- a). List comprehension

- b). Dict comprehension
- c). Database Access
- d). Sending Mail
- e). Multithreading
- f). Example problems

## Algorithms

- a). Linear Search, Binary Search
- b). Bubble Sort, Insertion Sort and Quick Sort
- c). Stacks, Queue and Binary Tree
- d). Example problems

## API Programing

- a). Interacting Twitter API's and Websites data
- b). Interacting Cloud (AWS/ Azure) services & accessing Databases
- c). Example problems

Practical Approach | Industry Best Practices with Real-Time Project | Group Tasking-Awesome Learning Environment | Fun-Filled Learning | Value For Money | Friendly Trainers | Highly Skilled Faculty | 100% Job Placement Assistance | Get Industry Case Studies| Free Demo Class | 60% Lab Practice in Class | Flexible Timings for Students and Professionals | Get Career Support through Resume Workshops and Interview



# SQL Training

## Introduction to Database

- a). What is cloud and Different cloud Databases
- b). Installation and Environment setup
- c). Advantage of Using Cloud Database
- d). Difference between On premise and Cloud Database
- e). Example problems

## Database Usage and Metadata Creation

- a). Database Creation
- b). DDL,DML and DLL commands
- c). Creation of Tables and Inserting data
- d). Update, Alter commands
- e). Example problems and Interview Questions

## Joins

- a). Why Joins?
- b). Equi Join example
- c). Outer Join
- d). Left, Right and Full outer join
- e). Self-Join
- f). Example problems and Interview Questions

## Sub Query's

- a). Single Row Subquery's
- b). Multirow Subquery's
- c). Multi column Sub query's
- d). Correlated Subquery's
- e). Example problems and Interview Questions

## Single Row Numeric and Date functions

- a). String functions like SubStr, Instr etc...
- b). Numeric functions like NVL, COALESCE etc..
- c). Date functions like TO\_CHAR (), TO\_DATE () etc..
- d). Aggregate functions like MAX,MIN
- e). Partition by clause
- f). Example problems and Interview Questions

## Window Functions

- a). Rank and Dense Rank
- b). Row\_number
- c). Lead,Lag
- d). Hierarchial Querys
- e). Example problems and Interview questions

## PL /SQL

- a). Loops introduction
- b). Procedures
- c). Triggers
- d). User defined functions
- e). Example problems

## Real-time project knowledge

- a). Getting Data set with different tables using TPCDS schema
- b). Understanding all complex SQL's
- c). Working on test data preparation
- d). Testing the Data flow using SQL complex Scripts

## Trainer Profile

**Suresh**

is a Python Programming & Data Science Trainer

with 5+ years of experience and 50+

MNC clients handled. I can handle both basics and advanced corporate

training on python programming, django framework, data science and machine learning.



## WHAT OUR STUDENTS SAY...

EXPERIENCED, PROFESSIONAL TUTORS WHO OFFER THEIR GUIDANCE AND ASSISTANCE EVERY STEP OF THE WAY. THE WAY OF CLEARING THE DOUBTS IS GOOD. IT IS VERY USEFUL FOR MY NEXT STEP. THE FLEXIBILITY OF CLASS TIMINGS ALSO GOOD.



---

Ram Arcade, 90/1B, Outer Ring Rd, CKB Layout, Chandra Layout, Marathahalli, Bengaluru,  
Karnataka 560037 Mobile: 06361794693 E-Mail : boyinasoft@gmail.com

---



<https://www.facebook.com/BoyinaSoftofficial>



<https://www.linkedin.com/company/boyina-soft>



<https://twitter.com/BoyinaSoft>



<https://www.youtube.com/channel/UCDg-nEqw5UUXUcAoX-Zr14g>