



*Your Pathway to Tech Excellence*

# Course Outline

## Data Analyst



# Microsoft Excel

## ■ Introduction

- Overview of Excel
- Viewing, Entering, Formatting & Copying Data
- Cleaning Data

## ■ Excel Basics

- Excel basics formulas

1.SUM

2.AVERAGE

3.COUNT

4.MAX

5.MIN

6.IF

- Built Table

## ■ Excel Advanced

- Vlookup
- Index Match
- Xlookup
- Time and Data Functions
- Sumif, Sumifs
- Countif, Countifs
- Conditional Formatting
- Sorting & Filtering
- Pivot Tables
- Macros
- Charts
- Graphs



# Power BI

## Introduction

- Overview
- Working Mechanism
- Intro to BI
- Intro to Data Analysis
- Uses of Power BI
- Power BI Components (Desktop, Service, Mobile app)
- Power BI Subscription (free, pro, premium)

## Data Sources

- SQL
- JSON
- Excel
- Workday
- CRM

## Power Query

- ETL
- Overview of Power Query Editor
- Pivot,Unpivot
- Filtering Data,Creating Columns, Measures
- Splitting/Merging
- Changing Data Types etc

## Data Modeling

- Relationships
- Managing relationships in Power BI

## DAX

- Calculate Functions
- Creating Date Table
- Measures
- Calculated Column

## Visualization

- Power BI data visualization
- Reports
- Highlights and Filter
- Format Visual

## Advance

- Bookmarks
- Q&A
- RLS
- How to use R, Machine learning models



## Power BI Service

- Interact with Dashboards
- RLS
- Schedule Refresh

# Python



## Introduction

- Introduction to Python
- Python Variables
- Datatypes in Python

## Python Basics

- Control flow statement
- Functions
- Classes and objects
- File Handling

## Feature Selection

- Numpy array
- Performing Mathematical functions using Numpy
- Indexing & Slicing

## Pandas

- Intro to Pandas
- Dataframe in Pandas
- Importing and Analyzing Dataset
- Visualizing Dataset

## Visualization

- Intro to Matplotlib
- create line plot
- create bar plot
- create scatter plot
- Histogram



# SQL

## Introduction

- Intro to Databases
- Tables in SQL

## DataTypes and Constrains

- create, use, drop database
- Datatypes in SQL
- Constrains in SQL
- Database Normalization

## Operators

- create table statement
- insert into statement
- select statement
- where statement
- And, Or, Not operators
- Like and Between Operators

## Joints & Functions

- Inner, Left, Full, Right join
- Delete and Truncate statement
- Update and Delete
- Merge
- Basics Functions
- String Functions
- Case statement
- If statement

## Clauses

- Group by
- Order by
- Having
- Union and Union All
- Except
- Intersept



