



# Data Science with Python & R 4 days' Workshop with Microsoft Certification

This workshop will introduce students to Data Science & Analytics using **PYTHON**.

## Intro to Python

Learn how to install Anaconda and work within the iPython/Jupyter environment, a powerful framework for data science analysis

### Opp's

Object Oriented Programming What is OOP  
Basic class  
Constructor

inheritance  
Override method abstract class operator  
overloading method overloading

### Python

Installing python Variables Strings Numbers

Get Variable Value How to Program Math  
Operators Built-in Functions Simple Sum

### Lists

List Indexing and Slicing List Slicing Examples For  
Loop with Conditional Block (Practice) Solution  
File Content Length (Practice)  
Solution

Functions, Conditionals, and Loops (Practice)  
Solution  
Writing Text to a File  
Appending Text to a File

Reading and Appending Text to a File Write  
Multiple Lines in a Text File (Practice) Tip: Writing  
Multiple Lines in a Text File

### Advance features

Section Introduction  
Setting Up  
While Loop  
While Loop with Password Checker String  
Formatting

Modules, Libraries, and Packages Installing Python  
Libraries  
Dates and Times  
Datetime Formatting Codes Looping Multiple  
Sequences

The "with" Context Manager  
Files, Loops, Functions, and Conditionals Solution  
Merging Text Files  
Tips: Merging Text Files

## Fixing errors

### Syntax Errors

Runtime Errors

Errors

How to Fix Difficult Errors Good Programming

Questions Error Handling

# Python for data science

- Work with Python data science packages including Numpy, Pandas, Scikit and Matplotlib.
- Read in data from different sources (including webpage data) and clean the data
- Carry out data exploratory and preprocessing tasks such as tabulation, pivoting and data summarizing in Python
- work with real life data collected from different sources
- Carry out data visualization and understand which techniques to apply when.
- Work around most common statistical data analysis techniques in Python including t-tests and linear regression Understand the difference between

# Understanding Data Analytics & Data Science

- Turning Numbers into Better Business Decision
- The Background to Data Analyst & Data scientist
- Task to be done by Data Analyst & Data scientist

"R" for Data science and analytics

- Intro to R – Programming tool for Analysis
- What is R- Programming
- Where it can be used

## Some Special charts for Data Analysis

- Explains how to use charts - waterfall, quadrant and ranking charts – Through R – Programming

## Analysis with Pivot Tables with R – Programming and Excel

- Teaches you how to use Pivot Tables to reduce, collate, analyze and compare data.

## Decision Making with Compared Scenario (Scenario Manager)

- Explains how to use Data Tables to compare scenarios for decision-making.

## Time Series and forecasting with R- Programming and excel

- Gives you the competency required to be able to forecast future values based on past experience. Topics include fitting trend line curves to real-life data and selecting the right kind of trend line to use as the basis for forecasting. Linear forecasting techniques are also developed using charting methods as well as analytic methods on the worksheet.

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## Introduction to Regression with R- Programming and Excel

- Explains multiple regression to identify which individual business inputs are most strongly

## Data analytics fundamentals Data science fundamentals

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### Program Details

Training Duration :- 28-30hrs

Project :- Included in the program

Fees Rs :-2880 + GST-: **With Microsoft MTA Certification 98-381**



Training | Assessment | Certification | mini Project



For Online registration please visit [payment.atsls.com](http://payment.atsls.com)



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Add: L-107, Laj pat Nagar Part-II, New Delhi 110024