



DATA ANALYST

- Data Science is the study of data, where we apply statistical techniques and extract insights from the data which helps organizations in better informed decision making.

Course Content

• Introduction to Data ANALYST

- Why? What? How?. Role and Responsibilities of Data Analyst
- Data science vs Data Analyst vs Data engineer

• Introduction to Excel.

- Introduction
- Data Preparation & Data Modules Fundamentals
- Data Preparation & Visualization
 - Advanced-Templates,R scripting Tooltips
- Intermediate Data Transformation
 - Parameters & Functions
- Intermediate Inter Active Visualization
 - DAX - The Essentials
- Intermediate Data Transformation
 - DAX - Advanced
- Intermediate Inter Active Visualization
- Advanced Visualization

• SQL

- Introduction & Installation
- DDL - Create, Alter, Drop & Truncate
- DML - Insert, DQL - Select
- DML - Update, Delete, Where Clause, Import Data, Export Data
- Operators - Arithmetic, Comparison, Logical - And, Or, Not
- Operators - Between, Like, Wildcard, RegExp Is Null, Is Not Null In, Distinct, Limit
- Aggregate Function - SUM, MIN, MAX, COUNT, AVG, ROUND, STD, SQUARE, POWER, FLOOR, CEILING
- Order By, Group By, Having, Alias, Clone Table, Views, Subquery, Handling Duplicates
- Date Function - CURDATE, ADDDATE, ADDTIME, CURTIME, DATE_FORMAT, NOW, MONTH, MONTHNAME, DAY, EXTRACT, DAY, DAYOFMONTH, DAYOFWEEK, DAYOFYEAR,, DATEDIFF
- Joins - Inner Join, Left Join, Right Join Using Function
- TCL - SavePoint, Rollback, Commit Constraints - Primary Key, Foreign Key, Null, Not Null, Unique, Auto_Increment
- DCL - Grant, Revoke Create User, Alter User, Drop User
- Store Procedure, Index, SQL Injection, Windows Function

Power BI

Topics

Understanding Power BI
Download & Install
The Three Views In Power BI
Important: Initial Settings
Query Editor - Basic data cleaning
Working with the attached project files
Edit rows & columns, Data Types, Replacing Values, Data Types, Replace & Edit rows

Data Preparation & Data Modules Fundamentals
Extracting values, Split columns, Text operations, Numerical operations
Creating relationships (data model)
Stacked column chart & Pie chart

Data Preparation & Visualization
Append Queries, Merge & Group, Dates & Hierarchies, Line Chart
Files from a folder, Fact-Dimension model, Edit relationships & cardinality
Activate & deactivate relationships
Manage & autodetect relationships

Intermediate Data Transformation
Tables, Customizing tables, Merging Queries, Unpivot & Pivot & Many-to-Many Relationship,
Filter Visual

Intermediate Interactive Visualization
Filters Pane, Top N Filter, Sync Slicers, Treemap
Visuals, Edit interactions, Drillthroughs, Keep filters with drill through, Tooltips
Custom column, Enable & Disable Load, References vs. Duplicates. Columns from example

Advanced Visualization
Visual Header & Sorting, Conditional Columns, Maps, filled maps, Forecast
Drill Through with Button, Bookmarks, Top products, Cards, Multi Row Cards

Power BI

Topics

Parameters & Functions

Get data from a web page, Use parameters with a web page

Understanding Calculated Columns, Understanding,
Measures AVERAGE, COUNT, DISTINCT COUNT, COUNTROWS
SUM, AVERAGEX & ROUND

RELATED & Data Model, CALCULATE, Filter problems

FILTER

Logical operators

DAX - Advanced

ALL

ALL on columns

ALL EXCEPT

ALL SELECTED

DATEADD

Year-to-Date & Month-to-Date

ROUNDING functions

FORMAT



DATA ANALYST

• Python

1. Introduction to Python for Data Science
2. Install and Write Your First Python Code
3. Introduction to Jupyter Notebook And Jupyter Lab
4. Keywords And Identifiers
5. Python Comments
6. Python Variables
7. Rules and Naming Conventions for Python Variables
8. Integer & Floating Point Numbers
9. Complex Numbers
10. Strings
11. LIST
12. Tuple
13. Set
14. Dictionary
15. Range In Python
16. List Comprehension
17. Input() Function In Python
18. Arithmetic Operators
19. Comparison Operators
20. Logical Operators
21. Bitwise Operators
22. Assignment Operators
23. Special Operators
24. Membership Operators
25. If Statement
26. If...Else Statement
27. Elif Statement
28. For loop
29. While loop
30. Break and Continue Statement
31. User Define Functions
32. Arbitrary Arguments
33. Function With Loops
34. Lambda Function
35. Built-In Function
36. Global Variable
37. Local Variable
38. File Handling in Python
39. The Close Method
40. The With Statement
41. Writing To A File In Python
42. Python Modules
43. Renaming Modules
44. The from...import Statement
45. Python Packages and Libraries
46. PIP Install Python Libraries

• PYTHON NUMPY

1. Introduction To Numpy
2. Creating Multi-Dimensional Numpy Arrays
3. Arange Function
4. Zeros, Ones and Eye functions
5. Reshape Function
6. Linspace
7. Resize Function
8. Indexing & Slicing
9. Broadcasting
10. How To Create A Copy Dataset
11. Introduction Creating Matrix

• PYTHON PANDAS

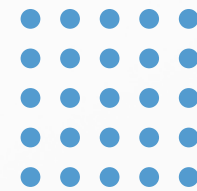
1. Pandas- Series
2. Loc & iLoc
3. Operations On Pandas DataFrame
4. Selection And Indexing On Pandas DataFrame
5. Reading A Dataset Into Pandas DataFrame
6. Adding A Column To Pandas DataFrame
7. How To Drop Columns And Rows In Pandas DataFrame
8. How To Reset Index In Pandas Dataframe
9. How To Rename A Column In Pandas Dataframe
10. Tail(), Column and Index
11. How To Check For Missing Values or Null Values(isnull() Vs Isna())
12. Pandas Describe Function
13. Conditional Selection With Pandas
14. How To Deal With Null Values
15. How To Sort Values In Pandas
16. Pandas Groupby
17. Count() & Value_Count()
18. Concatenate Function
19. Join & Merge(Creating Dataset)
20. Pandas-Join
21. Pandas- Merge



DATA ANALYST

• DATA VISUALISATION: MATPLOTLIB AND SEABORN

1. Matplotlib Subplots
2. Seborn
3. Scatterplot
4. Correlation
5. Boxplot
6. Pie Chart
7. Heatmap
8. Univariate Plots
9. Bivariate Plots
10. Multivariate Data Visualisation



Duration: 60 HRS (Project-Based Learning)