NARESH i technologies

MOST DEMANDING SKILL

Data Analytics
& Bussiness Intelligence

Training Mode
Classroom & Offline

Interview Skills &
Preparation

Every Week Test
Mock Interview Test

Get Ready For Job in

5-6 Months

Course Highlights

- 04 Resume Based Projects
- Complete concepts from Basics to Advance Level
- Lifetime Assess for Materials
- Everyday's Task
- Every Week Test (Mock Interview Test)

- Microsoft Certification in Data Analyst

- 300+ Certification based Sample Questions
- Resume Building
- 300+ Interview Questions & Answers
- Interview Skills & Preparation
- Multiple Mock Interviews

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Excel for Data Analytics

Basic Module

- Introduction to Microsoft Excel
- Installing Excel: Windows / Mac
- Getting Familiar With Excel
- Introduction to Tables
  - Rows & Columns
- Input data into cells
- Introduction to Formulas
- Formula Behavior
- Built in Functions
  - Count
  - Sum
  - Average
  - Variance
  - Standard Deviation
  - Correlation
  - IF
- Combining Data From Two Tables
  - VLOOKUP
  - Index Match

Advance Module

- Pivot Tables
  - Introduction to Pivot tables
  - Pivot tables options & Formatting
  - Reports using Pivot Tables
- Nested IF statements
- VBA to automate tasks
- Custom Functions

Statistics for Data Analytics

Descriptive Statistics

- Data
- Types of Data
  - Structured Data
    - Continuous
    - Discrete Count
    - Discrete Categorical
      - Nominal
      - Ordinal
    - Time Series
  - Unstructured Data
    - Images & Videos
    - Text & Audio
- Collection of Data
  - Surveys
  - Design of Experiments
  - Excel, CSV, Pdf, Textfile
  - Database (MySQL, MongoDB)
  - Big Data – Hadoop, Spark
  - Cloud
- Population & Sample
- Sampling Techniques
  - Simple Random Sampling
  - Stratified Sampling
  - Systemic Sampling
  - Cluster Sampling
  - Biased Sampling
- Measures of Central Tendency
  - Mean • Median • Mode
- Measures of Spread
  - Range • Variance
  - Standard Deviation
  - Bessel Correction
- Measures of Shape
  - Skewness • Kurtosis
- Percentiles
- Quartiles
- Inter Quartile Range (IQR)
- Outliers → Correlation
- Covariance → Probability
- Probability Distributions
  - Discrete probability Distribution
  - Continuous Probability Distribution
  - Uniform Distribution
  - Normal Distribution
  - Standard Normal Distribution
- Calculation of Probability using
  - 68-95-99.7% Rule
  - Z – Score & Z tables
- Standard Error
- Central Limit Theorem
- Confidence Intervals

Inferential Statistics

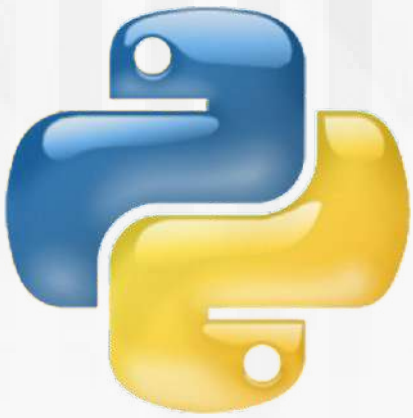
- Hypothesis Testing
- Formulation of Null &
- Alternate Hypothesis
  Type-I error & Type-II error
- P value
- Left tail vs Right tail vs Two tail

- 1 Sample test
  - 1 Sample Z test
  - 1 Sample T test
- 2 Sample test
  - 2 sample independent test
  - 2 sample paired test
- ANOVA Test
- Chi-square Test

Python

Basic Modules

- Introduction to Python
- Installation of Python
- Variables
- Input
- Output
- Data types
  - int • Float • Complex
  - Boolean • String
- Data Structures
  - List • Tuple • Set
  - Dictionary
- Operators
  - Arithmetic Operators
  - Assignment Operators
  - Comparison Operators
  - Logical Operators
  - Membership Operators
  - Identity Operators
  - Operators Precedence
- Condition Statements
  - If • If-else • if-elif-else
  - Nested if
- Loops
  - For Loops
  - Nested for loops
  - While Loop
  - Nested While loops
  - Loops Termination
    - Break • Continue
- Functions
  - Syntax for Writing function
  - Calling or Invoking function
  - Inbuilt functions
  - User defined functions
    - No Arguments
    - default arguments
    - positional arguments
    - keyword arguments
    - arbitrary arguments



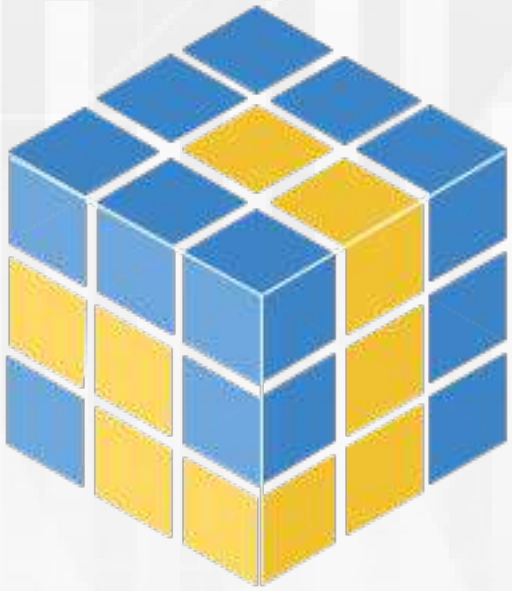
Advance Module

- Advance Functions
  - Lambda
  - Map
  - Filter
  - Reduce
  - Recursive Function
  - Nesting of Functions
- File handling
  - Opening file
  - Reading data from file
  - Writing data into file
  - Appending data into file
  - Line count in File
- Errors
  - Compile-time Error
  - Run-Time Error
  - Logical Error
- Exception Handling
  - Why exception handling?
  - try except block
  - Try with multi except
  - Finally block
  - Try-except-finally
  - Try with finally

Python for Data Science

NumPy

- Introduction to Numpy
- Numpy Attributes
- Array creation
- Indexing & Slicing
- Iteration over a array
- Array Manipulation
- Mathematical Operators
- Relational Operators
- Functions



Pandas

- Introduction to Pandas
- Series & Data Frame
- Create Data Frame
- Column Selection, Addition & Deletion
- Row Selection, Addition & Deletion
- Merging & Concatenation
- Import of Data from various sources
- Basic insights of datasets
- Summarizing Data
- Sorting
- Discretization
- Indexing and Selecting Data
- Filtering data
- GroupBy
- Exporting Data
- Statistical Functions

Exploratory Data Analysis

• Univariate Analysis • Bivariate Analysis • Multivariate Analysis

Matplotlib

- Histogram
- Box plot
- Scatter Plot
- Line Plot
- Pie Chart
- Bar Chart
- Subplots

Seaborn

- Bar Plot
- Count Plot
- Box Plot
- Line Plot
- Scatter Plot
- Regression Plot
- Pair Plot
- Heatmap
- Violin Plot

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Data Cleaning

- Dealing wrong Data
- Dealing wrong data types
- Treating the duplicates
- Dealing Missing Values
- Handling Outliers
- Drop unnecessary columns

SQL for Data Analytics

Basic Modules

- Introduction to Databases
- Databases vs Spreadsheets
- DBMS vs RDBMS
- Introduction to SQL
- SQL vsNoSQL
- Installation of MySQL
- Data Types in SQL
- Keys
  - Primary Key
  - Foreign Key
- Constraints
  - Unique • NOT NULL
  - Check • Default
  - Auto Increment
- CRUD Operations
  - Create • Retrieve
  - Update • Delete
- SQL Languages
  - Data Definition Language
  - Data Query Language
  - Data Manipulation Language
  - Data Control Language
  - Transaction Control Language
- SQL Commands
  - Create • Insert
  - Alter, Modify, Rename, Update
  - Delete, Truncate, Drop
  - Grant, Revoke
  - Commit, Rollback
- SELECT
- SQL Clause
  - Where • Distinct • Orderby
  - Group By • Having • Limit
- Operators
  - Comparison Operators
  - Logical Operators
  - Membership Operators
  - Identity Operators
- Wild cards
- Aggregation functions

Advance Modules

- SQL Joins
  - Inner Join & Outer Join
  - Left Join & Right Join
  - Self & Cross Join
  - Natural join
- Normalization
  - Normal Forms (1NF, 2NF & 3 NF)
  - ER Diagrams
- De-Normalization
- SQL Functions
  - String functions
  - Numeric functions
  - Window Functions
  - User Defined functions
- Sub queries
- Common Table Expressions (CTE)
- Views
- Stored procedures

Power BI for Data Analytics

Basic Modules

- Introduction to Power BI
  - Introduction to Power BI
  - Traditional BI vs. Power BI
  - Power BI vs. Tableau vs. QlikView
  - Installation of PowerBI Desktop
  - Connect & Working with Power BI Desktop
  - Basic Components of Power BI
  - Data model and importance of Data Modeling
- Connectivity Modes
  - Various Data Sources Supported in Power BI Desktop
- Exploring Live Connections to Data Sources
  - Connecting Directly to My SQL
  - Connecting Power BI in Excel

- Power BI Desktop and Data Transformation
  - Loading Data in Power BI Desktop
  - Views in Power BI Desktop
  - Transform, Clean, Shape, and Model Data
  - Manage Data & Editing Relationship
  - Measures
  - Calculated Fields
    - Calculated Columns
    - Calculated Measures
    - Calculated Tables
    - Conditional Columns
  - POWER BI Filters:
    - Slicer
    - Basic filters
    - Advanced filters
    - Top N filters
    - Filters on Measures
  - Saving Work file
- Data Visualization & Dashboard
  - Visualization Charts in Power BI
  - Custom Visuals
  - Page Layout and Formatting
  - Bookmarks and Selection Pane
  - Grouping and Binnig
  - KPI Visuals
  - Creating a Dashboard
  - Configuring a Dashboard
  - Share a Dashboard, Report & Workspace

Advance Modules

- Data Analysis Expression (DAX)
  - Introduction to DAX
  - Data Types in DAX
  - DAX Calculation Types
  - Steps to Create Calculated Columns
  - Measures in DAX
  - DAX Syntax
  - DAX Functions
  - DAX Operators
  - DAX Tables and Filtering

Tableau for Data Analytics

Basic Modules

- Introduction to Tableau
  - Tableau Architecture
  - Various Tableau Products
  - Installation of Tableau Desktop
  - Features of Tableau Desktop
  - Tableau Desktop User Interface
- Introduction to Tableau
  - Connect to data from File & Database
  - Types of Connections
  - Joins and Unions
- Visual Analytics
- Basic Charts:
  - Bar Chart
  - Line Chart
  - Pie Chart
- Sorting
- Filtering
- Grouping
- Sets
- Built-in Functions (Number, String Date, Logical and Aggregate)
- Operators and Syntax Conventions
- Table Calculations

Advance Modules

- Types of Calculations
- Trend lines
- Reference lines
- Forecasting
- Advance Plots
  - Box and Whisker's Plot
  - Bullet Chart
  - Bar in Bar Chart
  - Gantt Chart
  - Waterfall Chart
  - Pareto Chart
  - Control Chart
  - Funnel Chart
  - Bump Chart
  - Word Cloud
  - Donut Chart
- Dashboard
  - Introduction to Dashboards
  - The Dashboard Interface
  - Dashboard Objects
  - Building a Dashboard
  - Dashboard Layouts and Formatting
  - Interactive Dashboards with actions

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