🔥 DATA SCIENCE NOOB TO PRO MAX BATCH 4 🔥

Start Date : 01 August 2024
LIVE Session Time : (Mon-Sat) 6pm IST
Session Duration : 2 Hours
Batch Duration : 1 Month
Content Access : 500 Days

⭐ Key Features ⭐

- Basics to Advanced
- LIVE Sessions (Theory + Practical)
- Session Recordings
- Certification
- 10 Modules
- 10+ Projects
- 12+ Libraries
- 15+ Datasets
- 25+ Live Sessions
- 50+ Hours
- 100+ Interview Questions

📚 Syllabus 📚

✅ Python for Data Science

1. Installation
2. Variables
3. Data Types
4 Numbers

- Strings
- Operators
  - Arithmetic Operators
  - Assignment Operators
  - Comparison Operators
  - Logical Operators
- List
  - Basic Properties
  - Create
  - Access
  - Add
  - Remove
  - Sort
  - Join
  - Copy
  - Reverse
- Tuples
  - Basic Properties
  - Create
  - Access
  - Add
  - Remove
  - Join
  - Count
- Sets
  - Basic Properties
  - Create
  - Access
  - Add
  - Remove
  - Join
  - Copy
  - Difference
  - Intersection
  - Union
- Dictionary
  - Basic Properties
  - Create
  - Access
  - Add
  - Remove
  - Update
  - Clear
  - Copy
  - Keys
  - Values
- If...Else
- Elif
- Nested If...else
- Loops
  - For loop
  - Nested For loop
  - While loop
  - Nested while loop
  - Range
- Break statement
- Continue statement
- Functions
- Arrays
  - Basics
  - Representation
  - Create

    - Access
    - Traversal
    - Insert
    - Delete
    - Sort
    - Search
    - Reverse
- Multi Dimensional Array
- Class
- File Handling
- Exception Handling

✅ Statistics and Probability for Data Science

- Population
- Sample
- Measure of Central Tendency
    - Mean
    - Median
    - Mode
- Variance
- Standard Deviation
- Range
- Percentiles
- Quartiles
- Skewness
- Min
- Max
- Kurtosis
- Gaussian Distribution
- Central Limit Theorem
- Hypothesis Testing
- P-Value
- Covariance
- Bayes Theorem
- Entropy
- Gini Index

✅ Linear Algebra

- Vectors
- Matrices
- Transpose
- Inverse of a Matrix
- Determinant
- Dot Product
- Eigen Values
- Eigen Vectors

✅ Machine Learning

- Installation and Setup Configurations
- Loading Data
- Understanding Data
- Understanding DataFrame
- Training and Testing Data
- Preprocessing
    - MinMax Scaler
    - Standard Scaler
    - Robust Scaler
    - Binarizer
    - Normalizer
    - Label Encoding

    - One Hot Encoding
- Generated Datasets
    - make regression
    - make classification
    - make blobs
    - make circles
    - make moons
- Cross Validation
    - Holdout Method
    - K-Fold Cross Validation
    - Stratified Cross Validation
    - Leave P-Out
    - Leave One Out
- Univariate Analysis
- Bivariate Analysis
- Multivariate Analysis
- Simple Linear Regression
- Multiple Linear Regression
- Logistic Regression
- Multinomial Logistic Regression
- Ridge Regression
- Lasso Regression
- ElasticNet Regression
- Robust Regression
- Polynomial Regression
- Decision Tree Regression
- Support Vector Regression
- KNN Regression
- Decision Tree Classification
- KNN Classification
- Support Vector Machine
    - Linear Kernel
    - RBF Kernel
    - Polynomial Kernel
- Naive Bayes
    - GaussianNB
    - MultinomialNB
    - BernoulliNB
- K Means Clustering
- Hierarchical clustering
- Dendrogram
- Ensemble Methods
    - Gradient Boosting Classification
    - Random Forest Classification
    - Random Forest Regression
    - Bagging Classification
    - Ada Boost Classification
    - Voting Classifier
    - Voting Regressor
- Outliers Detection
    - DBSCAN
    - Isolation Forest
    - Elliptic Envelope
    - Local Outlier Factor
- Confusion Matrix
- Errors
- Score
- Accuracy
- Precision
- Recall
- Mean absolute error (MAE)
- Mean squared error (MSE)

- Root mean square error (RMSE)
- Hyperparameter Tuning
  - Manual Search
  - Grid Search
  - Randomized Search
- Feature Selection
  - Mutual_Info_Classif
  - Correlation Matrix
  - SelectKBest
  - Variance Threshold
- ROC Curve
- Bias-Variance tradeoff
- Principal Component Analysis (PCA)
- Pipelining
- Joblib
- Pickel
- Deployment using Flask
- Deployment using FastAPI
- **Machine Learning Projects**

✅ Time Series

- Upward Trend
- Downward Trend
- Stationary Data
- Cyclic Data
- Pandas data reader
- Datetime
- Indexing
- Visualization
- Forecasting
- Rolling
- Augmented Dickey-Fuller Test
- Simple Moving Average
- Cumulative Moving Average
- Autocorrelation Function (ACF)
- Partial Autocorrelation Function (PACF)
- ARIMAX
- SARIMAX
- **Time Series Project**

✅ SQL

- Mysql workbench
- Queries
  - SELECT
  - WHERE
  - CREATE DATABASE
  - CREATE TABLE
  - INSERT
  - UPDATE
  - ALTER
  - DROP
  - NOT
  - DISTINCT
  - LIKE
  - BETWEEN
  - IN
  - ORDER BY
  - LIMIT
  - OFFSET
  - COUNT
  - UNION

    - CHECK
    - DEFAULT
    - GROUP BY
    - HAVING Clause
    - IF and CASE
- Functions
    - AVG()
    - MIN()
    - MAX()
    - SUM()
    - ABS()
    - ROUND()
    - CONCAT()
    - GROUP_CONCAT()
- Joins
    - INNER JOIN
    - NATURAL JOIN
    - LEFT JOIN
    - RIGHT JOIN
    - FULL JOIN
    - CROSS JOIN
    - SELF JOIN
- Subquery
- Co-Related Subquery
- Aliases
- ANY Operator
- ALL Operator
- Entity Relationship Diagram
- Primary Key
- Foreign Key
- Common Table Expression
- Stored Procedures
- Triggers

✅ PowerBI

- PowerBI Installation
- Interface Tour
- Data Import
- Data Export
- Custom Table
- Report View
- Data View
- Model View
- Choose Column
- Remove Column
- Keep Row
- Remove Row
- Group By Implementation
- Merge
- Append
- Visualization
    - Stacked Bar Chart
    - Clustered Bar Chart
    - 100% Stacked Bar Chart
    - Stacked Column Chart
    - Clustered Column Chart
    - 100% Stacked Column Chart
    - Line Chart
    - Area Chart
    - Stacked Area Chart
    - Line and Stacked Column Chart

    - Line and Clustered Column Chart
    - Funnel Chart
    - Scatter Plot
    - Pie Chart
    - Donut Chart
    - Map
    - Tree Map
    - Filled Map
    - Gauge Chart
    - Cards
    - Slicers
    - Matrix
    - Table
    - Ribbon Chart
- Data Analysis Expressions (DAX)
- Power Query Editor
- Measures
- Types Of Relationships
- New Column (Using DAX)
- New Table (Using DAX)

✅ Deep Learning

- Neurons
- Neural Network
- Input Layer
- Hidden Layer
- Output Layer
- Weights
- Bias
- Batchs
- Epochs
- Iterations
- Learning Rate
- Multi Layer Perceptron
- Gradient Descent
- Activation Functions
    - Sigmoid Activation Function
    - Tanh Activation Function
    - ReLU Activation Function
    - Leaky ReLU Activation Function
    - Softmax Activation Function
- Forward Propagation
- Backward Propagation
- Chain Rule
- Vanishing Gradient Problem
- Exploding Gradient Problem
- Optimizers
    - Adadelta
    - Adagrad
    - Adam
    - RMSProp
    - SGD
- Dropout Layers
- Data Augmentation
- Flattening
- Max Pooling
- Kernels
- ANN
- CNN
- RNN
- LSTM

- GAN
- Model Deployment
- **Deep Learning Projects**

✅ Natural Language Processing

- Corpus
- Documents
- Vocabulary
- Words
- Vectors
- Regular Expression
- Tokens
  - Word Tokens
  - Sentence Tokens
- Tokenization
- Stemming
- Lemmatization
- POS Tagging
- Named Entity Recognition
- StopWords
- Bag of Words
- TF-IDF
- Word-2-Vec
- Model Deployment
- **Natural Language Processing Projects**

✅ Data Science Interview Questions

- 100+ Interview Questions

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In case of any query/doubt/difficulty regarding this batch, directly message me on whatsapp 8329917036

Or mail me at 5minutesengineering@gmail.com