Learnomate Technologies is the Information technology company which provide training on different IT Technologies.
Out of that **Data Science** is the one of the technology.
Course structure design in such a way that student will learn from Basic concepts to advance.
"Unlock the power of data with machine learning to revolutionize business strategies and drive smarter decision-making. Become a data science expert in this comprehensive and hands-on course!"

COURSE OBJECTIVES

- Learn the basic principles and terminology used in machine learning.
- Gain hands-on experience by implementing various machine learning algorithms in Python
- Learn techniques for cleaning, transforming, and preparing data for machine learning
- Learn how to evaluate the performance of machine learning models and deploy them for production use

COURSE SYLLABUS

Module 1: Introduction to Python

- Introduction to Python programming language
- Setting up Python environment
- Running the first Python program
- Basic syntax and data types in Python

Module 2: Data Manipulation with Python

- Working with variables and operators
- Using built-in functions and libraries
- Lists, tuples, and dictionaries
- Conditional statements and loops

Module 3: Data Analysis with Python

- Importing and exporting data
- Data cleaning and preprocessing
- Exploratory data analysis (EDA)
- Data visualization using Matplotlib and Seaborn

Module 4: Introduction to Mathematics for Data Science

- Foundations of Mathematics
- Sets and Set Theory
- Logic and Proof Techniques
- Number Systems

Module 5: Linear Algebra

- Vectors and Matrices
- Matrix Operations
- Systems of Linear Equations
- Eigenvalues and Eigenvectors
- Matrix Decomposition

Module 6: Calculus

- Limits and Continuity
- Differentiation
- Applications of Differentiation
- Integration
- Applications of Integration

Module 7: Probability and Statistics

- Basic Probability Concepts
- Random Variables
- Probability Distributions
- Statistical Inference
- Hypothesis Testing
- Regression Analysis

Module 8: Optimization and Numerical Methods

- Optimization Problems
- Linear Programming
- Non-linear Programming
- Numerical Methods for Solving Equations
- Numerical Methods for Optimization

Module 9: Graph Theory and Network Analysis

- Introduction to Graphs
- Graph Connectivity
- Graph Algorithms
- Network Analysis and Applications

Module 10: Statistical Analysis with Python

- Measures of central tendency and dispersion
- Hypothesis testing and confidence intervals
- Correlation and regression analysis
- ANOVA and chi-square tests

Module 11: Introduction to Data Science and Machine Learning

- Overview of Data Science
- Fundamentals of Machine Learning
- Types of Machine Learning Algorithms
- Applications of Data Science and Machine Learning

Module 12 : Data Preprocessing and Exploration

- Data Collection and Cleaning
- Data Manipulation and Transformation
- Exploratory Data Analysis
- Feature Engineering / Selection

Module 13: Supervised Learning Algorithms

- Linear Regression
- Logistic Regression
- Decision Trees
- Random Forests
- Support Vector Machines
- Naive Bayes
- K-Nearest Neighbors
- Ensemble Methods

Module 14: Unsupervised Learning Algorithms

- Clustering Techniques
- Dimensionality Reduction
- Principal Component Analysis
- K-Means Clustering
- Hierarchical Clustering
- Association Rule Learning

Module 15: Model Evaluation and Validation

- Metrics for Model Evaluation
- Cross-Validation
- Hyperparameter Tuning
- Model Selection
- Evaluation Techniques for Classification
- Evaluation Techniques for Regression

Module 16 : Introduction to Advanced Topics in Machine Learning

- Deep Learning
- Reinforcement Learning
- Natural Language Processing
- Time Series Analysis
- Recommendation Systems
- Anomaly Detection
- Transfer Learning

CASE STUDIES AND PROJECTS

Real-life Applications of Machine Learning
Project Frameworks
Project Implementation and Execution
Project Presentation and Documentation

Project Covered:

- **Preforming Exploratory data analysis on Airbnb data.**
- **Predict the income of an individual based on its social and financial atttributes – supervised learning**
- **Market Basket Analysis – unsupervised learning**

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A Steps towards the bright future

Course Details

- Training Duration: 6 Months
- Online Training available

TRAINING HIGHLIGHTS

- Recording Access shared to students on Learnomate App
- Professional Resume building by Industrial working mentors
- Dedicated Support Team to solve issues [8 Am to 8 Pm]
- Placement assistance/Job requirement notification support/HR contacts
- Training Certificate: Receive a recognized certificate upon course completion
- LinkedIn, Naukri.com Profile: Enhance your online presence with professionally curated profiles.
- Flexible Learning Options: Choose between offline and online training to suit your schedule.
- Interview Preparation, Mock Interviews: Nail your interviews with our tailored preparation and mock interview sessions
- Real-time Scenarios Explained: Learn through practical examples to master real-world applications.
- ❓ Doubt Sessions: Clarify your doubts through dedicated doubt-clearing sessions.

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CONTACT DETAILS

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