



Global Nexus Institute
— Innovation & Excellence —



Data Analytis with Python and MySQL

The "Data Analytics with Python and MySQL" course equips learners with essential skills in data analysis using Python and MySQL. Starting with environment setup, it covers Python basics, data structures, file handling, data visualization, and SQL integration. Through practical assignments, learners gain hands-on experience in analyzing and visualizing data, preparing them for professional data analytics roles.

Module 0: Installation

- Installation of Anaconda
- Using Anaconda Cloud (Online)
- Discussion Board
- Check for Your Understanding

Module 1: Foundations

- Module 1: Class Objectives
- Introduction to the Jupyter Notebook
- Introduction to Markdown
- Module 1 Assignment
- Introduction to Data Analytics

Module 2: Introduction to Python

- Module 2: Class Objectives
- Introduction to Python
- Introduction to Python Functions
- Python Conditional Statements
- Module 2 Assignment

Module 3: Introduction to Python Programming

- Module 3: Class Objectives
- Introduction to Python Data Structures
- Working with Python Data Structures
- Introduction to Python Loops
- Module 3 Assignment

Module 4: Python Programming

- Module 4: Class Objectives
- Writing Python Programs
- Introduction to NumPy
- Introduction to Pandas
- Module 4 Assignment

Module 5: Data Analysis with Python

- Module 5: Class Objectives
- Python File Input/Output
- Working with the Pandas DataFrame
- Introduction to Descriptive Statistics
- Module 5 Assignment

Module 6: Introduction to Visualization in Python

- Module 6: Class Objectives
- Introduction to Plotting in Python
- Introduction to One-Dimensional Data Visualizations
- Introduction to Two-Dimensional Data Visualization
- Module 6 Assignment

Module 7: Production Data Analytics

- Module 7: Class Objectives
- Introduction to CRISP-DM
- Introduction to Data Preparation Techniques
- Introduction to Linear Regression
- Module 7 Assignment

Module 8: Introduction to Databases in Python

- Module 8: Class Objectives
- Python with SQL
- SELECT and WHERE Statements
- Using Logical and Comparison Operators
- Reading Data Across Multiple Tables
- Basic SQL Queries in a Notebook Exercise
- Querying in Notebooks Exercise

