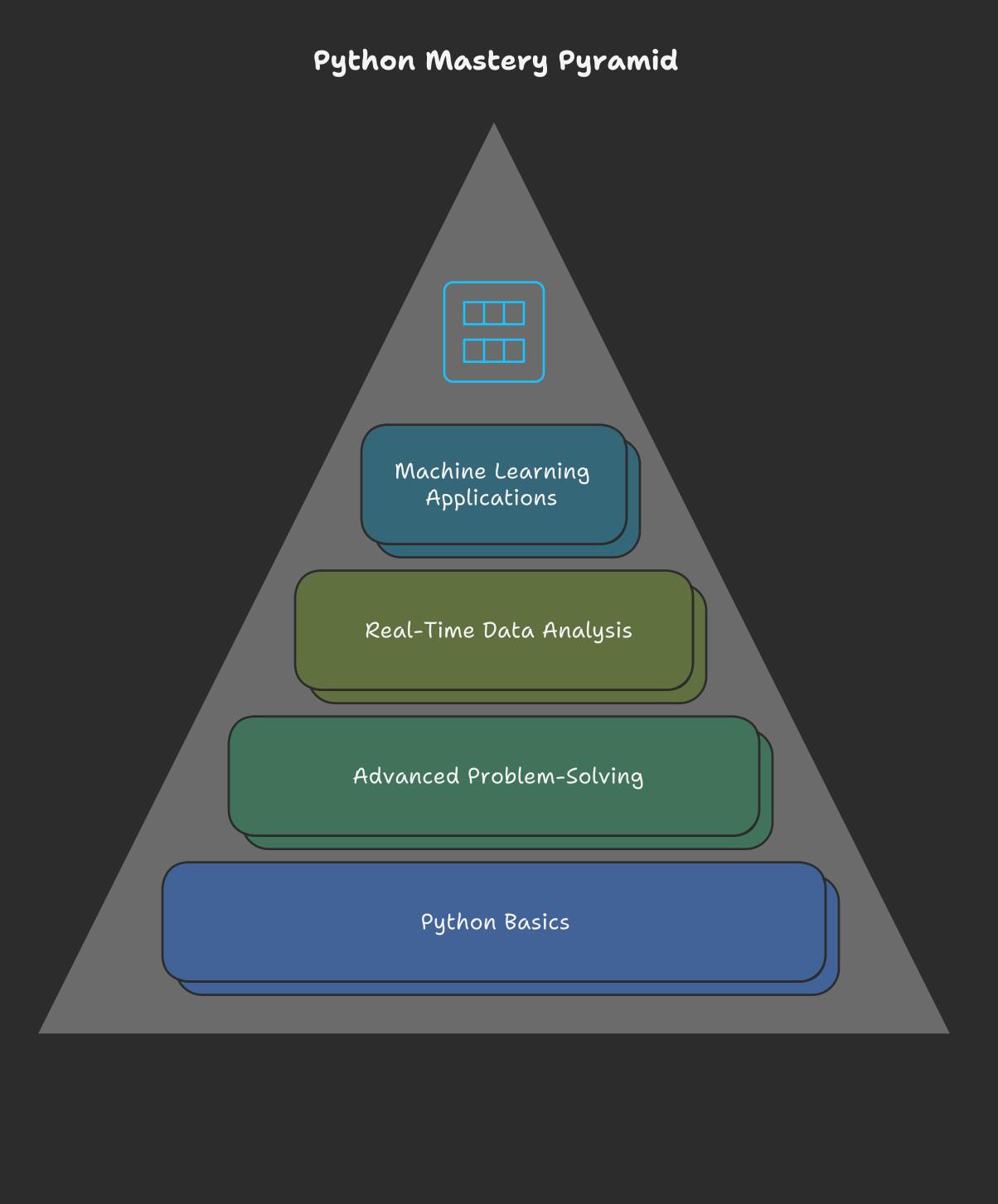
Python Programming: From Beginner to Pro with Data Science & ML career in tech, this comprehensive program is your one-stop solution. applications — along with 25+ real-world projects. This course focuses on practical, project-based learning, equipping learners with the

In the modern digital world, Python has become the most in-demand programming language - powering applications from web development to artificial intelligence, automation, and data analytics. Whether you're a complete beginner or someone looking to build a strong "Python Programming: From Beginner to Pro with Data Science & ML" is a complete hands-on training course designed to take learners from the basics of Python programming to advanced-level problem-solving, real-time data analysis, and intelligent machine learning confidence to write Python code, analyze data, and build intelligent models used in the real world.



Module 1: Python Fundamentals (Beginner Level) Topics: • Introduction to Programming & Python • Python Installation & IDEs

Duration: Approx. 60 to 90 hours

• Syntax, Indentation, and Comments • Variables & Data Types

Mode: Online + Live Sessions + Project Guidance

- Input/Output Functions • Operators and Expressions • Conditional Statements (if, elif, else) • Loops (for, while)
 - Functions and Recursion • Basic Python Projects (3 Mini Projects) **Projects**:
- Calculator App Number Guessing Game Quiz App

Number Guessing

A game where users

Student Register

A software to register

student marks.

Currency

Converter

another.

IPL Score

League.

Visualization

Creating visualizations

for scores and statistics from the Indian Premier

A tool to convert money

from one currency to

guess a number.

💰 Course Fee: ₹35,000

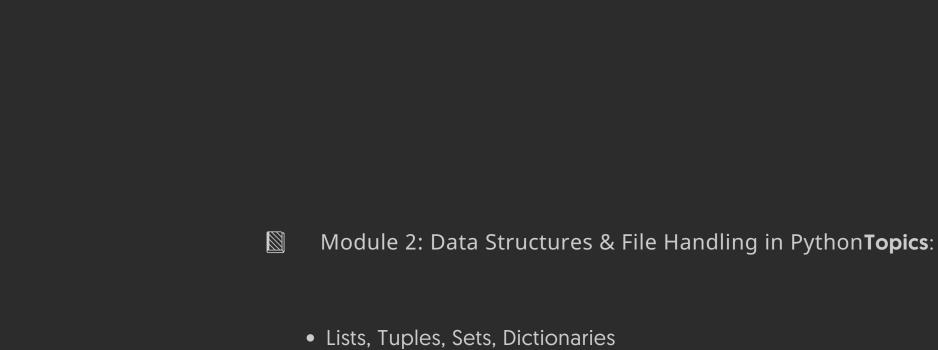
- **Calculator App** A mobile application that performs arithmetic

calculations.

Quiz App

topics.

An application that tests knowledge on various



• List Comprehensions

• String Manipulations

• Nested Data Structures

- File Read/Write (Text, CSV, JSON) • Exception Handling **Projects**:Contact BookStudent Marks RegisterFile-based Data Logger

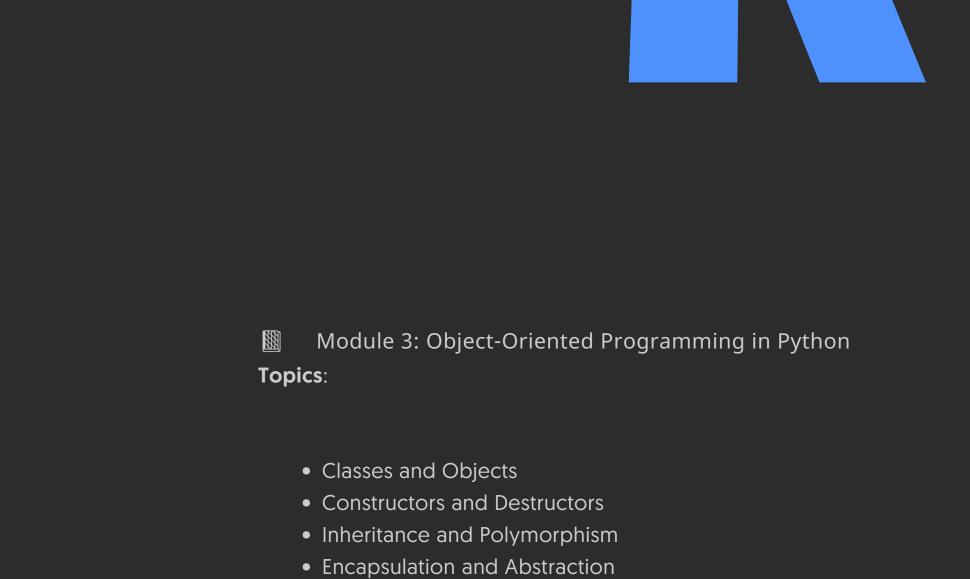
Data Logger

from files.

A software to log data

Software Projects

Contact Book A software to store and manage contacts.



Projects: Bank Management SystemLibrary Management System

• Virtual Environments Working with APIs **Projects**:

Module 4: Advanced Python Concepts**Topics**:

Weather App using OpenWeather APICurrency ConverterEmail Automation Tool

• Lambda, Map, Filter, Reduce

• Iterators and Generators

• Modules & Packages

Decorators

Magic Methods

- **Programming Projects**

Weather App

OpenWeather API.

A program that shows weather data using the

Email Automation

A tool that automatically

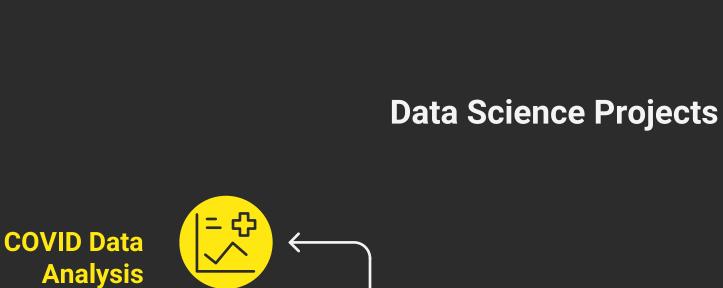
sends emails based on

triggers.

Topics:

metrics.

Projects:COVID Data AnalysisIPL Score VisualizationSales Report Dashboard



Module 5: Python for Data Analysis

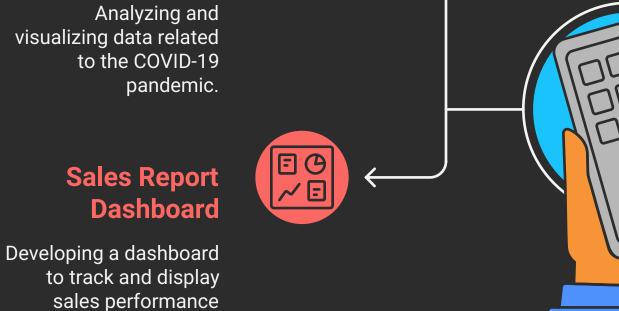
• DataFrames, Series, Merging, GroupBy

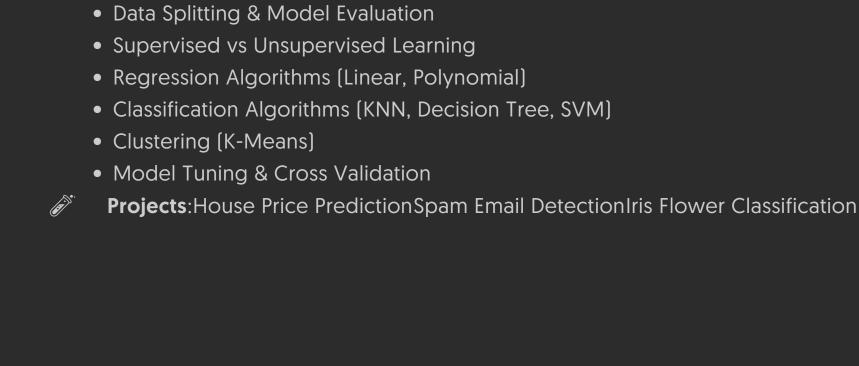
• Data Visualization with Matplotlib & Seaborn

• NumPy for Numerical Computing

• Data Cleaning and Preprocessing

• Pandas for Data Manipulation





House Price

Predict house prices using data.

• ML Overview and Applications

• Scikit-Learn Basics

Module 6: Introduction to Machine Learning**Topics**:

Data Science Projects

Spam

Detection

Identify spam emails

from legitimate ones.

Projects:Twitter Sentiment AnalysisNetflix Recommendation SystemStock Price Trend

Module 7: Data Science & Real-Time Applications **Topics**:

Iris

Classification

Classify iris flowers based on features.

• Time Series Forecasting (Basic) • Sentiment Analysis (Text) • Recommendation Systems • Model Deployment Concepts • Introduction to Flask for Web Apps

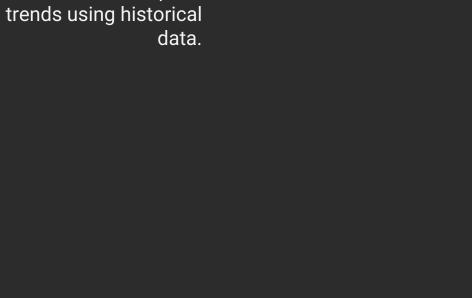
• Real-Time Data Pipelines

Analyzer

Sentiment

- **Data Science Projects**
- **Analysis** Analyze Twitter data to determine public sentiment.

Trend Analyzer Predict stock price





Module 8: Capstone Projects (Deployable + Industry Ready)

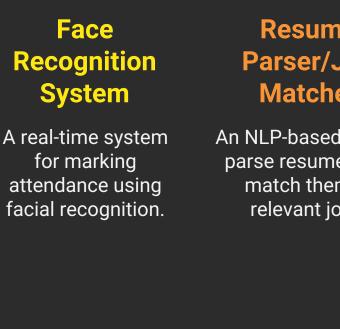
(NLP-based)Flask App: ML Model Deployment (End-to-End)

Data Science Portfolio Website (with GitHub + Resume Integration)

Projects:Real-time Face Recognition Attendance SystemResume Parser + Job Matcher

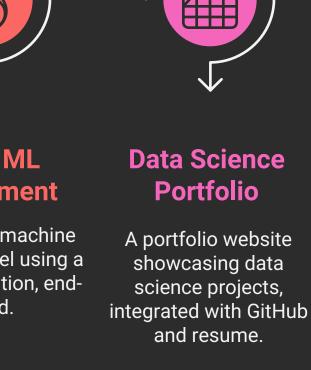
Capstone Projects











Recommendation

Suggest movies to users based on their

viewing history.

System

Course benefits Resume & GitHub Crafting a standout resume and GitHub profile.

Interview

Preparation

Preparing for ML,

Python, and DS

interviews.

Extras & Add-Ons

• Resume & GitHub Profile Building

• Live Q&A + Mentorship Sessions

• Interview Preparation (ML, Python, DS)

• Certification + Recommendation Letter



Live Q&A and mentorship for personalized guidance. **Certification &** Letter Certification and recommendation letter for recognition.

Mentorship

Sessions