Python Course for Mathematics Department Karachi University

Weeks	***Topics***
1	*Introduction to Python Programming* *Installation & Working with Python*
2	*Writing your first code in IDLE* *Variables and Operators* *Conditional Statements in Python*
3	*Loops in Programming* *Practical Program of Loops and their uses* *Lists and Sorting* *Working with Different Types of Series*
4	*Getting Started with Functions* *Make your own advanced calculator* *Calculation of Mathematical & Trigonometric Functions*
5	*Coordinates and Distance Calculation using Python* *Creating Graphical User Interface with Python*
6	*Getting Started with NumPy* *Plotting Mathematical Functions using Matplotlib* *Data Analysis with plotting functions*
7	*Linear Algebra with Programming* *Solving Equation Using Programming Techniques*
8	*Manipulation of Statistical Data with Python* *Creating & Accessing Excel Sheets with Programming* *Concept of Machine Learning*
9	*Getting Started with Linear Regression & Curve Fitting* *Perform Linear Regression with Python* *Prediction and Forecasting* *Manipulating CSV Files with Python*

10	*Data Science Expert Lecture. Calculating Mean, Median, Variance, Standard Deviation of data provided*
11	*Calculation of R and P values using Simple Linear Regression*
12	*Lambda Function and Sample Programs*
13	*Solving ODE through programming*
14	*Integration with plotting Responses*
15	*Interpolation in Python Programming* *Fourier Transform & Root Finding*

Designed By:

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