

Curriculum of the "Programming Basics" course

Session	Lecture Content
1	Variables , Receiving Input, Type Conversion, Strings, Formatted Strings, String Methods
2	Arithmetic Operations, Operator Precedence, Math Functions
3	If Statements, Logical Operators, Comparison Operators, Weight Converter Program
4	While Loops, Building a Guessing Game, Building the Car Game, For Loops, Nested Loops
5	Lists, 2D Lists, List Methods, Tuples, Unpacking, Dictionaries, Emoji Converter
6	Functions, Parameters, Keyword Arguments, Return Statement
7	Creating a Reusable Function, Exceptions, Comments, Classes
8	Constructors, Inheritance, Modules, Generating Random Values, Working with Directories
9	Data Visualization1: importance of data visualization, Frequency table, Histogram chart, Bar chart, Boxplot, Plot, Create line plot, Create Bar chart, Create histogram of data
10	Data Visualization2: plotting boxplot, DV for categorical data, Pie chart example, Scatter plots, Matplotlib figures, Subplot in one figure, Customization of plot elements
11	Data Visualization3: Matplotlib Exercise
12	What is NumPy?, NumPy Exercise
13	NumPy Exercise
14	What is Pandas?, Pandas Exercise
15	Pandas Exercise