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Class 1: An Introduction to Python
• Why Python?
• Good to know
• Python Syntax compared to other programming languages
• Python Install

class 2: Beginning Python Basics
• The print statement
• Comments
• Python Data Structures & Data Types
• String Operations in Python
• Simple Input & Output
• Simple Output Formatting
• Operators in python
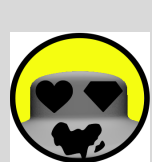
class 3: Python Program Flow
• Indentation
• The If statement and its' related statement
• The while loop
• The for loop
• The range statement
• Break &Continue

class 4: Functions& Modules
• Create your own functions
• Functions Parameters
• Variable Arguments
• Scope of a Function
• Function Documentations
• n Exercise with functions
• Create a Module
• Standard Modules

class 5: Exceptions Handling
• Errors

- Exception handling with try
- handling Multiple Exceptions
- Writing your own Exception

class 6: File Handling

- File handling Modes
- Reading Files
- Writing& Appending to Files
- Handling File Exceptions
- The with statement

class 7: Classes In Python

- New Style Classes
- Creating Classes
- Instance Methods
- Inheritance
- Polymorphism
- Exception Classes & Custom Exceptions
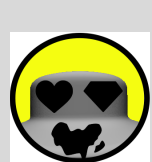
class 8: Generators and iterators

- Iterators
- Generators
- The Functions any and all
- With Statement
- Data Compression

class 9: Data Structures

- List Comprehensions
- Nested List Comprehensions
- Dictionary Comprehensions
- Functions
- Default Parameters
- Variable Arguments
- Specialized Sorts

class 10: Collections

- namedtuple()

- deque
- ChainMap
- Counter
- OrderedDict
- defaultdict
- UserDict
- UserList
- UserString

class 11: Writing GUIs in Python (Tkinter)

- Introduction
- Components and Events
- An Example GUI
- The root Component
- Adding a Button
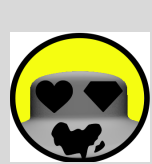- Entry Widgets
- Text Widgets
- Check buttons

Class 12: Python SQL Database Access

- Introduction
- Installation
- DB Connection
- Creating DB Table
- INSERT, READ, UPDATE, DELETE operations
- COMMIT & ROLLBACK operation
- handling Errors

Class 13: Network Programming

- Introduction
- A Daytime Server
- Clients and Servers
- The Client Program
- The Server Program

Class 14: Date and Time

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- sleep
- Program execution time
- more methods on date/time

class 16: Regular Expression

- Split
- Working with special characters, date, emails
- Quantifiers
- Match and find all
- character sequence and substitute
- Search method

Class 17: Accessing API ESSENTIAL

- Introduction
- Facebook Messenger
- Openweather

Class 18: DJANGO

- Django Overview
- Django Installation
- Creating a Project
- Usage of Project in depth Discussion
- Creating an Application
- Understanding Folder Structure
- Creating a Hello World Page
- Database and Views
- Static Files and Forms
- API and Security