

Python full tutorial with Tqzdh

1 Fundamentals

- ✓ Why Python?!
- ✓ Installing Tools
- ✓ Data Types
- ✓ Strings
- ✓ Lists
- ✓ Tuples
- ✓ Sets
- ✓ Dictionary
- ✓ Conditions
- ✓ Loops
- ✓ Iterators
- ✓ Functions
- ✓ Lambda
- ✓ Generators
- Project - Sorting lists
- ✓ Files in python
- Project - Phone Book
- ✓ Pickle library
- Project - Library Management
- ✓ Python Libs
- ✓ Cryptography
- Project - Cryptography
- Project 1
- Project 2
- Project 3
- Project 4
- Project - Programming exercises
- ✓ Modules
- ✓ Try Except
- ✓ PIP

2 Tools

- ✓ Requests library
- ✓ Regex in python
- Project - Email Scraper
- ✓ JSON library
- ✓ API
- Project - Weather API

3 OOP

- OOP Fundamentals
 - ✓ Inheritance
 - ✓ Encapsulation
 - ✓ Polymorphism
 - ✓ Abstraction
 - ✓ Object
 - ✓ Methods
 - ✓ Constructor
- Project - First Project

4 Data Base

- ✓ Relational Databases Intro
- ✓ Installing XAMPP Server
- ✓ MySQL Connector
- ✓ Connect to server
- ✓ Connect to database
- ✓ Create Table
- ✓ SELECT
- ✓ Foreign key
- ✓ JOIN
- ✓ Insert
- ✓ Drop and Delete

5 GUI

- ✓ PyQt5 intro
- Project - First project
- ✓ Event handling with Signal, Connect
- ✓ QT Designer
- Project - Calculator

6 Frameworks

- ✓ NUMPY intro
- ✓ Matplotlib intro
- ✓ OpenCV intro
- Scrapy
- Selenium
- ✓ Web Scraping

7 AI and Machine learning

- ✓ AI and Machine Learning Intro
- ✓ Scikit-Learn library
- Project - Bayes Classifier - pass or fail student
- Project - KNN Classifier - Gender Classification with Weight, Height
- Project - Population prediction in iran
- Artificial Neural Network
 - Perceptron
 - MLP
 - ✓ Deep learning
- CNN Architecture
 - CNN
 - LeNet
 - AlexNet
 - VGG16
 - VGG19
 - GoogleNet
 - ResNet
- ✓ Keras library
- ✓ Transfer Learning
- ✓ Google colaboratory
- Project - Final Project - Image processing