

Course Syllabus

Python Basics
Anaconda installation <ol style="list-style-type: none">1. Getting familiar with jupyter and spyder2. Installing required packages
BASICS
Variables and operators <ol style="list-style-type: none">1. Variables and their rules2. Mathematical operators3. Boolean and logical operators4. Comparison operators
Data types <ol style="list-style-type: none">1. Int2. Strings3. Floats4. Basic uses and operations
Data structures <ol style="list-style-type: none">1. Lists – uses and application2. Tuples - uses and application3. Dictionary - uses and application
Conditional statements <ol style="list-style-type: none">1. If else2. elif
Loops <ol style="list-style-type: none">1. For loop - uses and application2. While loop - uses and application3. Break, pass ,continue4. Zip and enumerate
List comprehension Input method Lambda expressions
Functions <ol style="list-style-type: none">1. Functions2. Built-in functions3. User defined functions
Error handling <ol style="list-style-type: none">1. Try and except
File Handling <ol style="list-style-type: none">1. Opening and closing a file2. Reading and writing a file
OOPs <ol style="list-style-type: none">1. Class and object2. Oops concepts
Packages of python <ol style="list-style-type: none">1. Pandas

<ul style="list-style-type: none"> 2. Numpy 3. Matplotlib & Seaborn 4. Tensorflow 5. Scikit learn 6. Opencv
Assignments
DEEP LEARNING
Introduction to deep learning
Neural network <ul style="list-style-type: none"> 1. Working 2. Uses and applications 3. Steps to make a NN
CNN <ul style="list-style-type: none"> 1. What is cnn? 2. Steps to make a cnn
Assignment
COMPUTER VISION
Introduction to CV
Drawing shapes and writing text
Image processing
Video analysis
Some Fun Applications
Assignment

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DJANGO

Module 1: Django components

How to install and Configure Django components

Module 2: How to create Django views

Module 3: Configuring URLconf's

Module 4: Django Templates

Module 5: Django Forms

Module 6: Django and REST APIs

Module 7: Unit testing with Django

Module 8: Database models

Module 9: Using Django Admin Interface

Module 10: Access Control with Sessions and Users

Module 11: Generic Views

Module 12: Data Caching for Performance

Module 13: Django's Email Functionality

Module 14: Deploying Django Applications

Main Project based on Python & Django.

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