Full Stack Web Development with Python in Hindi Tech Neuron

Instructors:

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Saurabh Shukla has been educating children with this credo, and he does so for free. MySirG.com, the educator's YouTube channel, features video lessons on programming languages. Saurabh has successfully reached thousands of students around the country by making it his aim to produce subject-related videos on a daily basis.

Curriculum:

Course introduction

• course overview and dashboard description

• Programming language overview

• History of Python

• Version History of Python

• Installation (tools:vscode, IDLE)

• Learning Path through Python

Python basic

• Developing and executing Python program

• Python Virtual Machine

• Comment, data, variables, types

• heap space and namespace

- id, keywords, import, module, help

- print, input

- number system

- Conversion functions

- Operators - arithmetic, bitwise, comparison and assignment operators, operator's precedence and associativity

- Decision Control Statements

- Iterative control Statemenets - while loop

- transefer control statements- break, continue, pass

- for loop

- range

List object basics

- list

- list methods

- List comprehensions

- packing unpacking

- built-in methods

String objects

- String object basics

- String methods

- Splitting and joining strings

- String format functions

Tuples

- tuple basics

- tuple methods

- list vs tuple

set

- set basics

- set comprehensions

- set methods

dict

- dictionary basics

- dict methods

- dict comprehensions

Functions

- Function Basics

- Ways to define a function

- function returning None

- default arguments

- positional vs keyword arguments

- variable number of arguments

- Recursion

- Lambda functions

- Iterators

- Generator functions

• Decorators

• Map, reduce, filter functions.

Memory management

• Multithreading

• Multiprocessing

Oops concepts

• oops basic concepts.

• Main aspects of OOP

• Encapsulation and Abstraction

• Classes and Objects

• init method

• Types of variables

• Types of functions

• Inheritance

• Name conflict issues

• Polymorphism

• Overriding

• Operator Overloading

Exception Handling

• Introduction to Exceptions

• Exceptions handling with try-except

• use of else and finally

• Defining exception

Files

• Working with files

• Reading and writing files

• Buffered read and write

• Other file methods.

• Renaming a file

• Removing a file

DATABASE

• Postgres Basics

Project

• Core Python + DB

• Web Project-1

• Web Project-2

Web Development using Python on Django

• Client Server Architecture

• HTML

• CSS

• JS

• Introduction to Django

• Creating first Django Project

- Creating web application

- Defining views in an application

- Multiple views

- Multiple Application

- Application level url configuration

- Template

- Template variables

- Template Tags

- Template Filters

- Custom Template Tags and Filters

- Database Introduction

- SQLite DB

- Models

- makemigrations

- migrate

- Admin app

- CRUD operations

- session tracking

- login functionality

React

- React Essentials

Web API

- What is web API

- Difference b/w API and web API

- Restful services

- POSTMAN