Software Fellowship - Analytical Web App

Lecture Time: 1.5 hours
Start date: Asar 29

Requirement: Github student pack

Module 1 - Introduction to Software Development (Day 1)

1. Software development processes - Development models.
2. Programming paradigms
3. Different OSs
4. Note taking and best practices
5. Getting help

Module 2 - Environment setup, Python Basics, and Git Basics(Day 2)

1. Basic Command line and environment setup
2. Python basics data structures control structures, and functions.
3. Basic Visual studio code setup and Debugger
4. Git/Github Basics (four essential commands)

Module 3 - Python Intermediate and core concepts (Day 3 and 4)

1. Concepts of OOP
2. Python packages and modules
3. Advanced list and dictionary processing
4. Comprehensions

Module 4 - Data Analytics - Pandas Plotly (Day 5)

1. Five-step process of data analytics
2. Pandas(Introductory)
3.. Plotly (Introductory)

Module 5 - Web Dev (Day 6, 7, and 8)

1. Figma Prototyping and Basics Web Django Installation
2. MVC architecture, and GitHub actions setup
3. Plotly and Django

Module 6 - Containerization - Docker Basics (Day 9)

1. Docker and Containerization of Application

Module 7 - Deploy- IAAS/nginx/dns (Day 10)

1. Concept of IAAS
2. Public/Private IP and Virtual Private Server(VPS)
3. Web servers (Nginx) and SSL certificate