



Python For Everybody with Web Scraping

(Website: www.aiquest.org, Cell: +8801704265972)



পাইথন



For Everybody



with Web Scraping

মোট ক্লাস: 23টি; কোর্সের সময়কাল: 50 ঘন্টা

ক্লাসের সময়: 8:30PM (2 ক্লাস/সপ্তাহ)

কোর্স ফি: 5000 টাকা

ব্যাচ ০৩: ০১ ডিসেম্বর ২০২৩



Course Instructor

Md. Azizul Hakim

Lecturer, Daffodil International University
Bachelor in CSE at KUET

TO ENROLL:

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Web: www.aiquest.org

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Bachelor in CSE at Khulna University of Engineering and Technology

Module 1: Introduction to Python (Duration: 1.5 hours)

- Introduction to the course and its objectives
- Overview of Python as a programming language
- Setting up the development environment (IDE, Python installation)
- Your first Python program
- Basic data types and variables
- Class Condition: Submit a simple "Hello, World!" program.

Module 2: Control Structures (Duration: 4 hours)

- Conditional statements (if, elif, else)
- Loops (for, while)
- Control flow and decision making
- Assignments **
- Problem-Solving Session: Practice problems related to control structures.
- Q&A Session: Clarify doubts related to control structures.

Module 3: Data Structures (Duration: 6 hours)

- Lists, tuples, and dictionaries
- String manipulation and formatting
- Sets and their applications
- List comprehensions
- Assignments **
- Problem-Solving Session: Work on exercises involving various data structures.
- Q&A Session: Discuss challenges faced while working with data structures.

Module 4: Functions and Modules (Duration: 5 hours)

- Defining and calling functions
- Function parameters and return values
- Scope and lifetime of variables
- Introduction to modules and libraries
- Assignments **
- Problem-Solving Session: Solve coding challenges emphasizing function usage.
- Q&A Session: Address queries about functions and modules.

Module 5: Introduction to Algorithm and Data Structures (4 Hours)

- Time Complexity
- Space Complexity
- Sorting algorithms
- Linked list
- Stack
- Queue
- Assignments **
- Problem-Solving Session: Solve coding challenges using stack, queue, linked list.
- Q&A Session: Address queries about stack, queue, linked list.

Module 6: Object-Oriented Programming (Duration: 7 hours)

- Concepts of classes and objects
- Inheritance and polymorphism
- Encapsulation and abstraction
- Introduction to exception handling
- Class Condition: Develop a simple object-oriented program like a basic banking system.
- Problem-Solving Session: Practice OOP-related problems.
- Q&A Session: Clarify doubts about OOP concepts and exception handling.

Module 7: File Handling and Libraries (Duration: 8 hours)

- Reading and writing files
- Working with CSV and JSON data
- Introduction to popular libraries (NumPy, Pandas, Matplotlib, Seaborn)
- Integration of external libraries in projects
- Assignment: Analyze a dataset using Pandas and present findings.
- Problem-Solving Session: Tackle challenges related to file processing and libraries.
- Q&A Session: Discuss issues faced during file handling and library usage.

Module 8: Web Scraping with Python (Duration: 12 hours)

- Introduction to web scraping
- Regular expression
- **Beautiful Soup** (for collecting data from XML and HTML files)
- Learning **Selenium** (to interact with JavaScript-based content)
- **Scrapy** (for a complete solution for crawling, parsing, and storing data.)
- Web scraping **projects**
- Q&A Session on Web scraping
- Assignments

Module 9: Final Project and Review (Duration: 4 hours)

- Brainstorm and propose final project ideas
- Form teams and select projects
- Implementation of the final project with problem-solving elements
- Presentation of final projects to the class
- Peer review and feedback
- Q&A and Problem-Solving Session: Assist teams with final project challenges.

Q&A and Problem-Solving Sessions (Throughout the Course):

- Open Q&A and problem-solving sessions.
- Doubts, review previous concepts, and solve coding challenges.
- Internship Guidelines.
- What Next?

To Enroll in Course:

Contact: +8801704265972 (Call/WhatsApp)

[Sohan Khan](#), Course Coordinator at aiQuest Intelligence

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