Week 3: Introduction to Python

Objective

To introduce students to Python. By the end of the week, students should be able to write advanced Python scripts.

Students are required to research various Python concepts. Use the provided resources and conduct your own research to understand these core principles. Apply what you've learned by experimenting with code and integrating Python into your projects.

Daily Typing Practice

- **Activity**: Typing Club
- **Task**: Complete a daily typing practice session on TypingClub for 1 hour. Focus on improving typing speed and accuracy.
- **Access**: TypingClub
- **Goal**: Track your progress and aim to improve your typing speed and accuracy each day.

Advanced Topics to Explore

- **Asynchronous Programming**:
  - **Concepts**: Async/await, asyncio.
  - **Resources**:
    - Asynchronous Programming - Real Python
    - asyncio - Python Documentation
- **Python ES6+ Features** (For Python):
  - **Concepts**: List comprehensions, generators, decorators.
  - **Resources**:
    - Python List Comprehensions - W3Schools
    - Python Generators - Real Python
    - Decorators in Python - Python Documentation
- **Advanced File Handling**:
  - **Concepts**: Context managers, file I/O operations.
  - **Resources**:
    - File Handling - W3Schools
    - Context Managers - Real Python

Resources

- **W3Schools**:
  - Python Tutorial
  - Python Functions
  - Python File Handling
- **YouTube Resources**:
  - [Python Crash Course - Traversy Media](#)
  - [Python for Beginners - The Net Ninja](#)
  - [Learn Python Full Course for Beginners - MakBig Learn](#)
  - [Python Tutorial - Akshay Saini](#)

Additional Instructions

A PDF file with specific tasks will be sent to you separately. Complete these tasks and submit them to the portal along with screenshots of your work.

- **Read the Task Instructions Carefully**: Ensure you understand what's required before starting.
- **Test and Review Your Work**: Check your code thoroughly for accuracy and functionality.
- **Submit with Clear Screenshots**: Ensure screenshots clearly show your work and any output.

Tips for Success

- **Practice Regularly**: Write Python code consistently to get comfortable with the syntax and concepts.
- **Use Documentation**: Refer to online documentation and tutorials for further clarification on topics.
- **Test Thoroughly**: Test your code in various scenarios to ensure functionality and fix any bugs.

For Support

- **E-mail**: makbighub@gmail.com
- **Contact**: +91 85478 31175