1. Define classes and objects in Python. Create a class representing a basic calculator with methods for addition, subtraction, multiplication, and division.
2. Explain the concepts of inheritance and polymorphism in object-oriented programming. Provide an example of implementing inheritance in Python.
3. Describe the purpose of decorators in Python. Write a program that uses a decorator to measure the execution time of a function.
4. Introduce the concept of virtual environments in Python. Explain the benefits of using virtual environments for managing project dependencies.
5. Research and write a brief essay on a specific advanced topic in Python, such as multithreading, generators, or data visualization libraries like Matplotlib.