

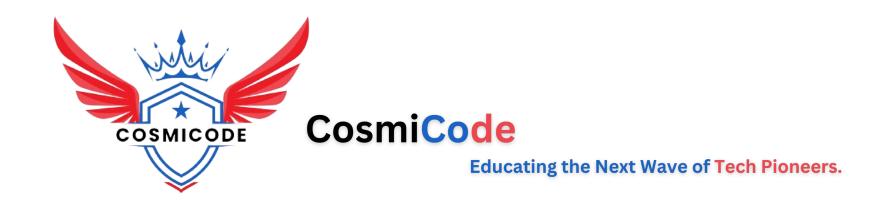
Week 5 Tasks

- **Task 1:** Define a class for a bank account with attributes for account number, balance, and owner name. Include methods for deposit, withdrawal, and transfer.
- **Task 2:** Implement a class hierarchy to represent geometric shapes (e.g., Circle, Rectangle, Triangle) with methods to calculate area and perimeter.
- **Task 3:** Create a program to demonstrate the concept of inheritance by creating a base class for a vehicle and derived classes for car and bike.
- **Task 4:** Write a program to implement operator overloading for complex number arithmetic.
- **Task 5:** Implement a program that demonstrates polymorphism by creating a base class and derived classes with overridden methods.
- **Task 6:** Create a program to manage a library system using classes, including methods for adding, removing, and displaying books.
- Task 7: Implement a class to handle basic file operations (reading, writing, appending) for text files.









Week 5 Guide

Objective: Understand and apply object-oriented programming concepts in Python.

- Task 1: Define and use classes and objects for a bank account.
 Refer to W3Schools Python Classes.
- Task 2: Implement a class hierarchy for geometric shapes and calculate area and perimeter. Refer to W3Schools Python Inheritance.
- Task 3: Create a base class for a vehicle and derived classes for car and bike. Refer to W3Schools Python Inheritance.
- Task 4: Implement operator overloading for complex numbers.
 Refer to W3Schools Python Operator Overloading.
- Task 5: Demonstrate polymorphism using base and derived classes with overridden methods. Refer to W3Schools Python Polymorphism.
- Task 6: Manage a library system using classes. Learn about file handling for adding, removing, and displaying books.
- Task 7: Implement file operations using classes for text files. Refer to W3Schools Python File Handling.





