**Problem 1: Student Grade Manager**

**Concepts: File Handling + Inheritance + Polymorphism**

**Objective**:
Create a system to manage student grades and save them to a file.

**Requirements**:

- Create a base class Person with properties: Name, ID.
- Create a derived class Student with additional properties: Course, Grade.
- Override a method DisplayInfo() to show student details.
- Create a list of students and write their details to a text file (students.txt).
- Read the file and display the contents.

**Problem 2: Shape Area Calculator**

**Concepts: Inheritance + Polymorphism + File Output**

**Objective**:
Calculate areas of different shapes and log results to a file.

**Requirements**:

- Create an abstract class Shape with a method CalculateArea().
- Derive classes: Circle, Rectangle, Triangle, each implementing CalculateArea().
- Create a list of shapes and calculate their areas.
- Write the shape type and area to a file (areas.txt).

**Problem 3: Employee Payroll System**

**Concepts: Inheritance + Polymorphism + File Handling**

**Objective**:
Simulate payroll processing and store results.

**Requirements**:

- Base class Employee with properties: Name, ID, BaseSalary.
- Derived classes: Manager, Developer, Intern with overridden method CalculateSalary():
    - Manager: BaseSalary + 20% bonus
    - Developer: BaseSalary + 10% bonus
    - Intern: BaseSalary (no bonus)
- Store employee salary details in a file (payroll.txt).

**Problem 4: Vehicle Inventory System**

**Concepts: Inheritance + Polymorphism + File I/O**

**Objective**:
Manage vehicle inventory and save/load data.

**Requirements**:

- Base class Vehicle with properties: Make, Model, Year.
- Derived classes: Car, Truck, Motorcycle with additional properties.
- Override DisplayInfo() to show full details.
- Save vehicle list to a file (vehicles.txt) and read it back.