

5. File Handling (5 Exercises)

21. Write a program to create a file and write 5 lines into it.
 22. Write a program to read a file and count the number of lines containing the word "Python".
 23. Write a program to append a timestamped log entry into a file.
 24. Read a CSV file and print only rows where marks > 75.
 25. Create a file that stores the squares of numbers from 1 to 20.
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6. Classes & Objects (5 Exercises)

26. Create a class Book with title, author, pages. Add method to check if pages > 300.
 27. Create a class BankAccount with deposit and withdraw methods.
 28. Create a class Rectangle with methods to calculate area and perimeter.
 29. Create a class Student that stores marks of three subjects and calculates percentage.
 30. Create a class Mobile with brand, model, and method to show details.
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7. Constructors & Methods (3 Exercises)

31. Create a class Employee with constructor and method to print details.
 32. Create a class Temperature with constructor and methods to convert Celsius to Fahrenheit and vice versa.
 33. Create a class Laptop with constructor taking brand, RAM, price, and method to calculate discount.
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8. Inheritance (4 Exercises)

34. Create parent class Vehicle and child class Car that overrides a method start().
 35. Create Person → Employee → Manager (multilevel). Add different methods in each.
 36. Create a base class Payment and child classes: CreditCardPayment and UPIPayment. Override process().
 37. Create two parent classes Camera and Phone, and a child class SmartPhone (multiple inheritance).
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9. Polymorphism & Method Overriding (2 Exercises)

- 38. Create two classes Cat and Dog. Both should have a method sound() that behaves differently.
 - 39. Create a Notification parent class and override send() in EmailNotification and SMSNotification.
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10. Operator Overloading (1 Exercise)

- 40. Create a class Score that overloads the + operator to combine two scores, and overloads > to compare them.
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