

30 Intermediate Python Programming Exercises

1. User Age Calculator

Calculate user age from birthdate using datetime.

2. Word Counter

Count words, characters, and word frequency in a paragraph.

3. Currency Converter

Convert DZD to USD, EUR, and GBP using fixed rates.

4. Guess the Number

Guess a number between 1–50 with hints.

5. Expense Manager

Add, delete, and view personal expenses with file storage.

6. Number Analyzer

Display max, min, sorted list, and average.

7. Student Manager

Handle adding, removing, searching, and ranking students.

8. Password Manager

Save and load passwords using JSON.

9. Basic Calculator

Perform +, -, *, /, power, and square root.

10. Tic-Tac-Toe Game

Two-player terminal game with win/draw detection.

11. Email Validator

Check if an email follows valid formatting rules.

12. Palindrome Checker

Detect whether text or numbers are palindromes.

13. File Line Counter

Count lines, words, and characters in a text file.

14. Temperature Converter

Convert Celsius, Fahrenheit, and Kelvin.

15. Shopping Cart System

Manage items, prices, totals, and receipts.

16. Prime Number Generator

List primes up to a given number.

17. Quiz Game

Multiple-choice quiz with scoring.

18. Contact Book

Add, search, delete, and save contacts.

19. Hangman Game

Classic hangman word-guessing game.

20. Rock-Paper-Scissors

Track wins/losses vs computer.

21. Multiplication Table Generator

Generate tables up to n.

22. Random Password Generator

Generate secure random passwords.

23. Library Manager

Manage books, borrow/return, and user records.

24. Unit Converter

Convert length, weight, and time units.

25. Calendar Program

Display monthly calendar from year and month.

26. Bank Account Simulation

Deposit, withdraw, check balance.

27. Caesar Cipher

Encrypt/decrypt text using shifting technique.

28. Matrix Calculator

Sum, subtract, multiply, and transpose matrices.

29. ToDo Task Manager

Track tasks with statuses (pending/done).

30. Mini Weather App

Fetch and display weather data (simulated JSON input).
