

Python Full Stack Development Training

Comprehensive Assignment (Days 1–3)

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Objective

Create a Python program that builds a personal dashboard:

- Manage personal data (name, age, hobbies).
- Track expenses and summarize totals and categories.
- Maintain a contact book and analyze contact data.
- Perform string manipulation and statistics.
- Use list and dictionary comprehensions.

Tasks

1. User Profile Setup

- Prompt the user for their name, age, and hobbies.
- Store this data in a dictionary.

2. Expense Tracker

- Record 5 expenses (amount + category).
- Display total expense and unique categories.

3. Contact Book

- Record 3 contacts with name and age.
- Compute average age of contacts.
- Display names of contacts over age 25.

4. String Fun

- Ask for a sentence about the user's day.
- Display the sentence in uppercase.
- Count vowels in the sentence.
- Print the words in reverse order.

5. Comprehensions

- Generate a list of squares of numbers 1–10.
- Create a dict mapping 1–5 to their cubes.

Bonus

Wrap parts of your code in functions for reusability and clarity.