

Real-Life Python Programming Problems (With Solutions Placeholder)

Tuple-Based Real-Life Problems

1. Store student details (name, age, grade) using tuples and display them.

Solution:

Write your solution here.

2. Store GPS coordinates as tuples and calculate distance between two.

Solution:

Write your solution here.

3. Store (account_no, amount, type) in tuples and extract only deposits.

Solution:

Write your solution here.

4. Each tuple has (day, temperature). Print the hottest day.

Solution:

Write your solution here.

5. Extract all flight destinations from a list of flight info tuples.

Solution:

Write your solution here.

6. Sort employee tuples based on salary.

Solution:

Write your solution here.

7. Tuple of (student_name, subject, score), find highest scorer per subject.

Solution:

Write your solution here.

8. Use a tuple to represent a config setting and explain immutability.

Solution:

Write your solution here.

9. Given (city, STD code), find city for a given code.

Solution:

Write your solution here.

10. From tuple (product_id, name, price), display affordable products.

Solution:

Write your solution here.

11. Get all movie titles released after 2010.

Solution:

Write your solution here.

12. Store contacts as (name, number) and search by name.

Solution:

Write your solution here.

List-Based Real-Life Problems

1. Add/remove items from a shopping cart and calculate total.

Solution:

Write your solution here.

2. Store book names and remove a book once it's issued.

Solution:

Write your solution here.

3. Maintain a to-do list and mark completed tasks.

Solution:

Write your solution here.

4. Count votes from a list and find the winner.

Solution:

Write your solution here.

5. Get average, max, and min of student marks.

Solution:

Write your solution here.

6. Maintain list of team members, add/remove dynamically.

Solution:

Write your solution here.

7. Track stops from origin to destination using a list.

Solution:

Write your solution here.

8. Store and plot stock price trends over a week.

Solution:

Write your solution here.

9. Sort daily sales to find highest earning day.

Solution:

Write your solution here.

10. Merge two user watchlists and remove duplicates.

Solution:

Write your solution here.

11. List of students present, find absentees.

Solution:

Write your solution here.

12. Store feedback messages and count negative ones.

Solution:

Write your solution here.

13. Store AQI values and classify each day as Good, Moderate, etc.

Solution:

Write your solution here.

Set-Based Real-Life Problems

1. Remove duplicate email addresses from a mailing list.

Solution:

Write your solution here.

2. Track unique website visitors using set of IPs.

Solution:

Write your solution here.

3. Find common users between two product sales using sets.

Solution:

Write your solution here.

4. Find items common in two festival shopping lists.

Solution:

Write your solution here.

5. Check if a winning ticket number is in the participant set.

Solution:

Write your solution here.

6. Check which candidate skills match job requirements.

Solution:

Write your solution here.

7. Find common symptoms among multiple patients.

Solution:

Write your solution here.

8. Suggest mutual friends using intersection of sets.

Solution:

Write your solution here.

9. Check which products are missing from stock.

Solution:

Write your solution here.

10. Find who responded to both or only one of two surveys.

Solution:

Write your solution here.

11. Check if a directory contains duplicate files.

Solution:

Write your solution here.

12. Get users interested in both music and sports.

Solution:

Write your solution here.

String-Based Real-Life Problems

1. Check if password has upper, lower, digit and symbol.

Solution:

Write your solution here.

2. Create short versions of given URLs using string slicing.

Solution:

Write your solution here.

3. Count vowels, consonants, digits in a paragraph.

Solution:

Write your solution here.

4. Convert full names to initials (e.g., Deepak Dhingan -> D.D.).

Solution:

Write your solution here.

5. Extract timestamp and error type from a server log.

Solution:

Write your solution here.

6. Find wrongly spelled words by comparing with a dictionary list.

Solution:

Write your solution here.

7. Extract valid Indian mobile numbers from a string.

Solution:

Write your solution here.

8. Extract all emails from a given text file.

Solution:

Write your solution here.

9. Check if a product name or sentence is a palindrome.

Solution:

Write your solution here.

10. Count how many times each word appears in a blog post.

Solution:

Write your solution here.

11. Remove special characters and multiple spaces from user input.

Solution:

Write your solution here.

12. Flag inappropriate words in user comments.

Solution:

Write your solution here.

13. Extract and count hashtags used in social media posts.

Solution:

Write your solution here.