

String Problems

1. Library Management System

Problem Statement: You are tasked with creating a program for a library management system. Implement a function that takes a book title as input and checks if it matches any of the books currently available in the library's database.

Sample Test Case:

- Input: "The Great Gatsby"
 - Output: Book found in the library database.
-

2. Restaurant Feedback System

Problem Statement: Develop a program to process customer feedback for a restaurant. Write a function that checks if a given feedback comment contains any inappropriate language or words.

Sample Test Case:

- Input: "The food was terrible and the service was awful."
 - Output: Inappropriate language detected.
-

3. Chat Application Username Check

Problem Statement: You are building a chat application and need to implement a function that checks if a given username is available or already taken by another user.

Sample Test Case:

- Input: "user123"
 - Output: Username available.
-

4. Product Review Analysis

Problem Statement: Create a program to analyze product reviews. Implement a function that calculates the average rating for a product based on a list of review scores.

Sample Test Case:

- Input: "4, 5, 3, 2, 4"
 - Output: Average rating: 3.6
-

5. Word Game Guess Check

Problem Statement: Develop a program for a word game. Implement a function that checks if a player's guess matches the hidden word, considering both the characters and their positions.

Sample Test Case:

- Input: Guess: "rainbow", Hidden Word: "rainbow"
 - Output: Correct guess!
-

6. Music Player - Extract Artist Name

Problem Statement: You are building a music player application. Create a function that extracts the artist's name from a given song title.

Sample Test Case:

- Input: "Shape of You - Ed Sheeran"
 - Output: Artist: Ed Sheeran
-

7. Error 404: Program Not Found

8. Online Store Order Processor

Problem Statement: Develop a program to process customer orders for an online store. Implement a function that extracts the product name and quantity from a given order string.

Sample Test Case:

- Input: "2 x iPhone 12, 1 x AirPods Pro"
 - Output: Product: iPhone 12, Quantity: 2; Product: AirPods Pro, Quantity: 1
-

9. Social Media Post Hashtag Extractor

Problem Statement: You are building a program to analyze social media posts. Create a function that identifies and extracts hashtags from a given post.

Sample Test Case:

- Input: "Just finished my workout! #fitness #healthyliving"
 - Output: Hashtags: #fitness, #healthyliving
-

10. Retail Store Inventory Management

Problem Statement: Implement a program to manage inventory for a retail store. Write a function that checks if a given product is in stock based on its SKU (Stock Keeping Unit).

Sample Test Case:

- Input: SKU: "ABC123"
 - Output: Product in stock.
-