Practice Exercises (3 Questions)

1. Read and Parse Nested JSON Data

Given the JSON file company.json with employee records:

```
{
    "company": "TechCorp",
    "employees": [
        {"name": "Alice", "role": "Developer"},
        {"name": "Bob", "role": "Designer"},
        {"name": "Charlie", "role": "Manager"}
    ]
}
```

- Write a Python script to **load** this JSON file and **print each employee's name and role**.

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2. Convert Python Dictionary to JSON and Save to a File

- Create a dictionary containing **book details** (title, author, year, price).

- Convert the dictionary to JSON using json.dumps().

- Write the JSON string to a file (books.json).

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3. Handle JSON Parsing Errors

- Write a script that tries to **load an invalid JSON string** and handles errors using try-except.

- Example:

    invalid_json = '{ "name": "John", age: 30 }' # Missing quotes for age

- The program should catch json.JSONDecodeError and print an appropriate error message.