Aqua Home Assignment

Goal
- Develop a service that reads JSON data files from a specified directory, validates records, and stores reconciled data in a database.

Provided Data
- Directory containing multiple JSON files representing different data streams:
    1. resources.json: Metadata about repositories and images.
    2. scans.json: Scan results of repositories and images.
    3. connections.json: Information on connections between the resources.

Tasks
1. Directory Monitoring:
    - Implement code to watch the specified directory for new or changed JSON files.
2. Data Processing:
    - Upon detecting a new/changed file:
        - Read the JSON file.
        - Validate data integrity (basic schema check).
        - Perform reconciliation logic (consider a conflict resolution strategy for duplicate entries, e.g., prioritize the latest update).
        - Persist the reconciled data into the database.

Deliverables
- Code that monitors the directory, parses JSON files, validates data, performs reconciliation, and stores data.
- A README file with setup, running, and basic testing instructions.

Focus on
- Core functionalities - prioritize completing the essential tasks over advanced features.
- Code clarity and maintainability - write clean and well-commented code.
- Basic error handling - handle potential errors during data reading/validation/reconciling gracefully.

Feel free to reach out with ANY queries or clarifications. Good luck!