Group Practice 1: OOP with Regex

Task 1: Text Formatter

1. **Class Design**:
    - Design a class `TextFormatter`.
    - The class should have methods to format text using regular expressions.
2. **Regex Implementation**:
    - Implement a method `replace_dates` that uses regex to find dates in the format `DD/MM/YYYY` and replace them with the format `YYYY-MM-DD`.
    - Implement a method `find_all_urls` that uses regex to find all URLs in the text.
3. **Practice**:
    - Write a few test cases with sample text data to ensure your formatter works as expected.

Group Practice 2: OOP with Pickles

Task 2: Favorite Movies List

1. **Class Design**:
    - Design a class `FavoriteMovies` that stores a list of favorite movies.
2. **Pickle Implementation**:
    - Implement methods to add movies, remove movies, and list all movies.
    - Implement methods to serialize (`save`) and deserialize (`load`) the movie list using the `pickle` module.
3. **Practice**:
    - Add a few movies, save the list to a file, and then load it back to ensure the data is preserved.

Group Practice 3: Pythonicness

Task 3: Custom Stack

1. **Class Design**:
    - Design a class `CustomStack` that implements a stack data structure.
2. **Pythonic Implementation**:
    - Implement methods to push, pop, and get the size of the stack.
    - Use magic methods (`__len__`, `__repr__`) to make the class behave in a Pythonic way.
3. **Practice**:
    - Demonstrate the use of the class and ensure it follows Pythonic principles.

Group Practice 4: Packaging

Task 4: Create a Utility Package

1. **Package Design**:
    - Create a package named `utils` with modules `math_utils.py` and `string_utils.py`.
2. **Module Implementation**:
    - Implement a class `MathUtils` inside `math_utils.py` with methods for basic arithmetic operations.
    - Implement a class `StringUtils` inside `string_utils.py` with methods for string manipulation.
3. **Packaging**:
    - Write a `setup.py` file for packaging.
    - Install the package locally and use it in another script.