HOMEWORK 4

SECOND ENTITY AND MANY-TO-MANY ENTITY RELATIONSHIPS

PREREQUISITES:

The task is a continuation of **Homework 3** and should be done in the same repo.

TASK 4.1

Add **Group** entity to already existing **REST** service with **CRUD** operations.

- The **Group** entity should have the following properties (you can use **UUID** as Group **id**):

```
type Permission = 'READ' | 'WRITE' | 'DELETE' | 'SHARE' | 'UPLOAD_FILES';

type Group = {
  id: string;
  name: string;
  permissions: Array<Permission>;
};
```

- The service should provide the following **CRUD** operations for **Group**:
  - get group by **id**;
  - get all groups;
  - create and update a group;
  - remove group (**hard delete** - group data is fully removed from the DB).
- Storing of groups data should be done in **PostgreSQL** in **Groups** table.
- The service should follow the principles of 3-layer architecture.

TASK 4.2

Link **User** records in one table with **Group** records in another table.

- Add a **UserGroup** table ("*many-to-many*" relationship) which will store the data describing which users are assigned to which group.
- If any record gets removed from the DB, then all linked records should be removed from **UserGroup** as well.

TASK 4.3

Add `addUsersToGroup(groupId, userIds)` method which will allow adding users to a certain group. Use **transactions** to save records in DB.

EVALUATION CRITERIA

2. Group entity is added, operations are implemented but there are some code structure/quality issues.
3. **Task 4.1** is fulfilled to the full extent.
4. **Task 4.2** is fulfilled to the full extent.
5. **Task 4.3** is fulfilled to the full extent; transactions are used for saving records.