

S-23 Sierpinski Database

Databases Project 2025

Mapping approach

We decided to make two separate tables for Replikas and Gestalts rather than a giant table for Persons due to the multitude of different relationships that Replikas can have since they can write reports or request tasks.

For our second ISA relationship: we decided to create a separate table for tasks that we then connect to the tables for deliveries and operations via their ID. We did this for multiple reasons: firstly it is so we can keep track of which tasks were rejected or approved by admins, secondly it is to retain the common features of deliveries and operations without cluttering their respective tables and lastly to have a clear connection between the person and what task they are currently assigned to in order to check for availability.

Most of the relationships between objects are 'one to many', that's why we put almost all of them as the foreign keys in the entity tables. That is also why there was a lot of interconnections to add the foreign keys from the start, since there would be reference errors everywhere, therefore we put all of the foreign keys after the table declarations as ALTER TABLE ADD.

The Report entity almost turned out as a relationship, but since there can be multiple reports written by the same person regarding the same task, we have put the reports as separate table. Also, all of the TEXT descriptions could have been paths to the files with that text instead, but we do not know how to do that yet, so nope.

One of the other problems is that we were not kind of consistent with the namings, meaning that some names were shortened, some names needed to be altered (my guess is that whole sql experience is try not to hit the keyword challenge), and that we have not added the foreign keys as our named constraints and are letting the DB choose the names automatically.