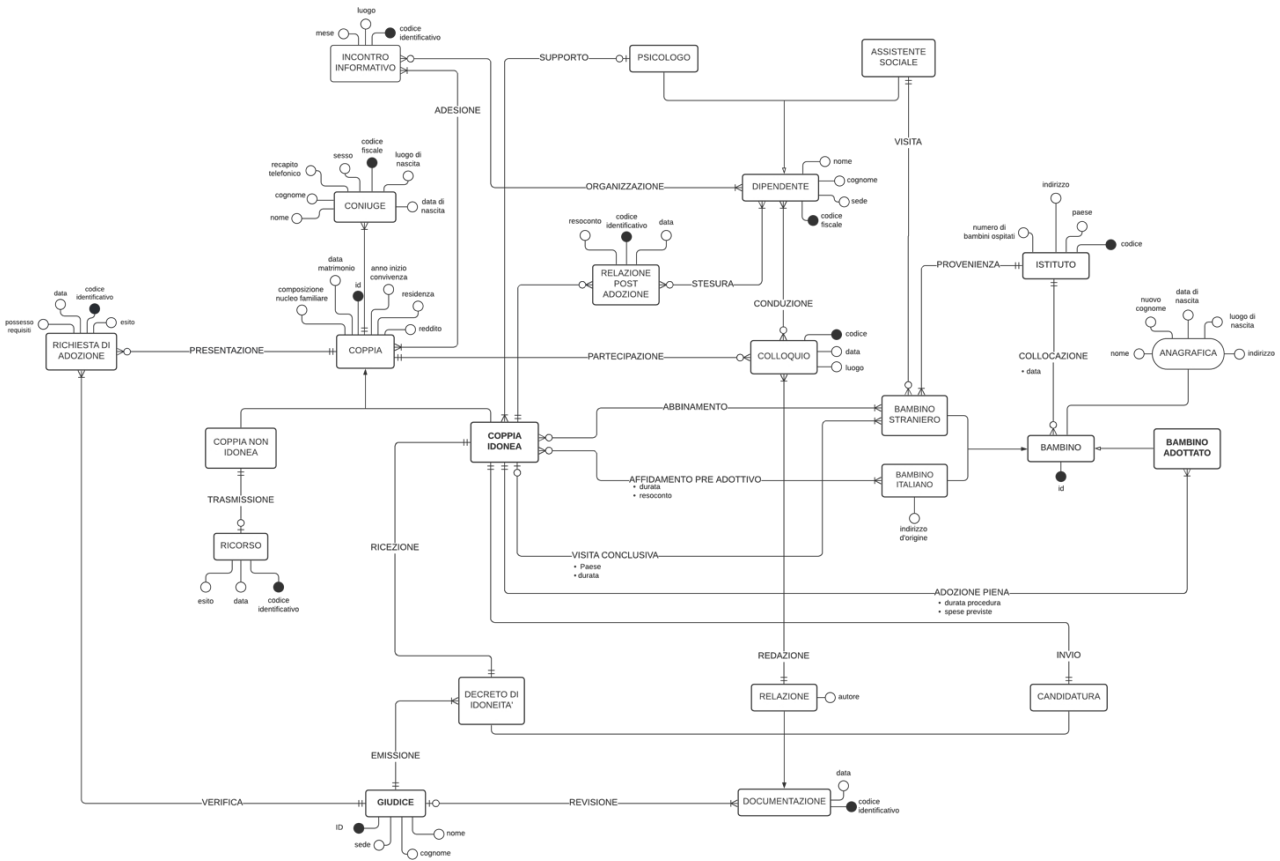


CONCLUDING REPORT

To begin with, we interviewed Ms. XXXX and Ms. YYYY, employees of the Milan office of CIAI (Centro Italiano Aiuti all'Infanzia). After giving us a general overview of the organization, they provided us with the materials to create a database with which to keep track of the national and international adoption processes they deal with.

We attach the interview below: [INTERVIEW](#)

From this text, then, we identified the key concepts and created the entity-relationship model. This model summarizes all the key aspects of the processes: how a couple comes into contact with the association, the whole process by which they become eligible or not eligible, what they have to do once they become eligible, and how the process ends. The steps are similar for both types of adoption process, so we preferred to avoid sharply dividing the outline into two parts and used these similarities as a junction point between the two outlines. We attach the [model](#) we arrived at.



Next, before turning to the logical scheme, we [restructured](#) the conceptual model attached above. In order to carry out the restructuring in the best possible way, we consulted the [tables](#) of volumes and operations that we developed earlier, relying on the help of our stakeholders.

In particular, we had to replace generalizations, as they were not translatable.

- GENERALIZATION OF EMPLOYEE - PSYCHOLOGIST - SOCIAL WORKER

Merging the daughter entities into the parent entity: the employee is involved in a large number of relationships, so since we could not merge the father into the daughters (non-total generalization) and had the only alternative of adding two new relationships, we chose this route so as not to increase the complexity of the schema too much.

- GENERALIZATION OF CHILD - ADOPTED CHILD

Merging child entities into the father entity: adding a relationship, in this case, would not have been convenient since our sources told us that almost all the adoption processes that CIAI deals with go smoothly and therefore the child and adopted child tables would have been about the same. Generalization is not total so we could not merge child into adopted child.

- GENERALIZATION OF CHILD - ITALIAN CHILD - FOREIGN CHILD

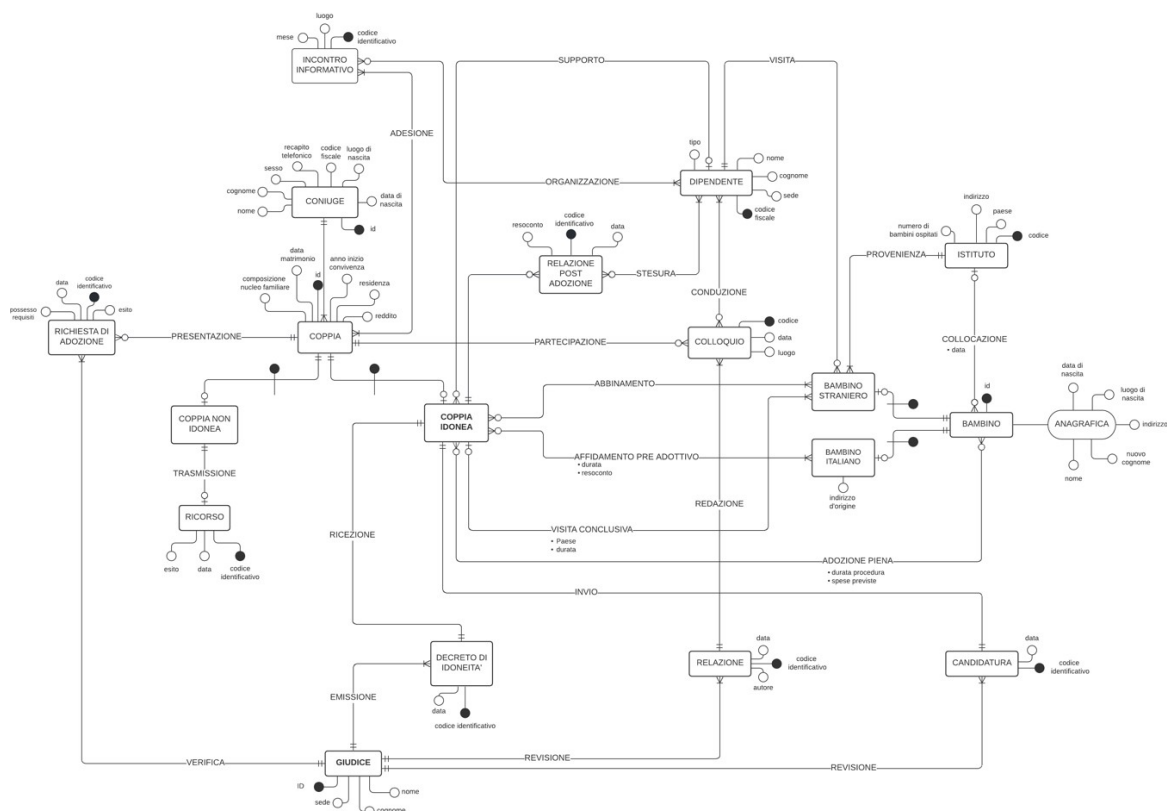
Replacing with relations: for greater efficiency of the database, we felt it was convenient to keep the three concepts separate.

- GENERALIZATION OF COUPLE - SUITABLE COUPLE - UNSUITABLE COUPLE

Substitution with relationships: given the substantial difference between the path taken by an eligible couple and that taken by an unsuitable couple, we felt it was not convenient to merge the two concepts. Also, given the large number of relationships in which the entity 'couple' participates, we did not want, although we could, to merge it into the child entities.

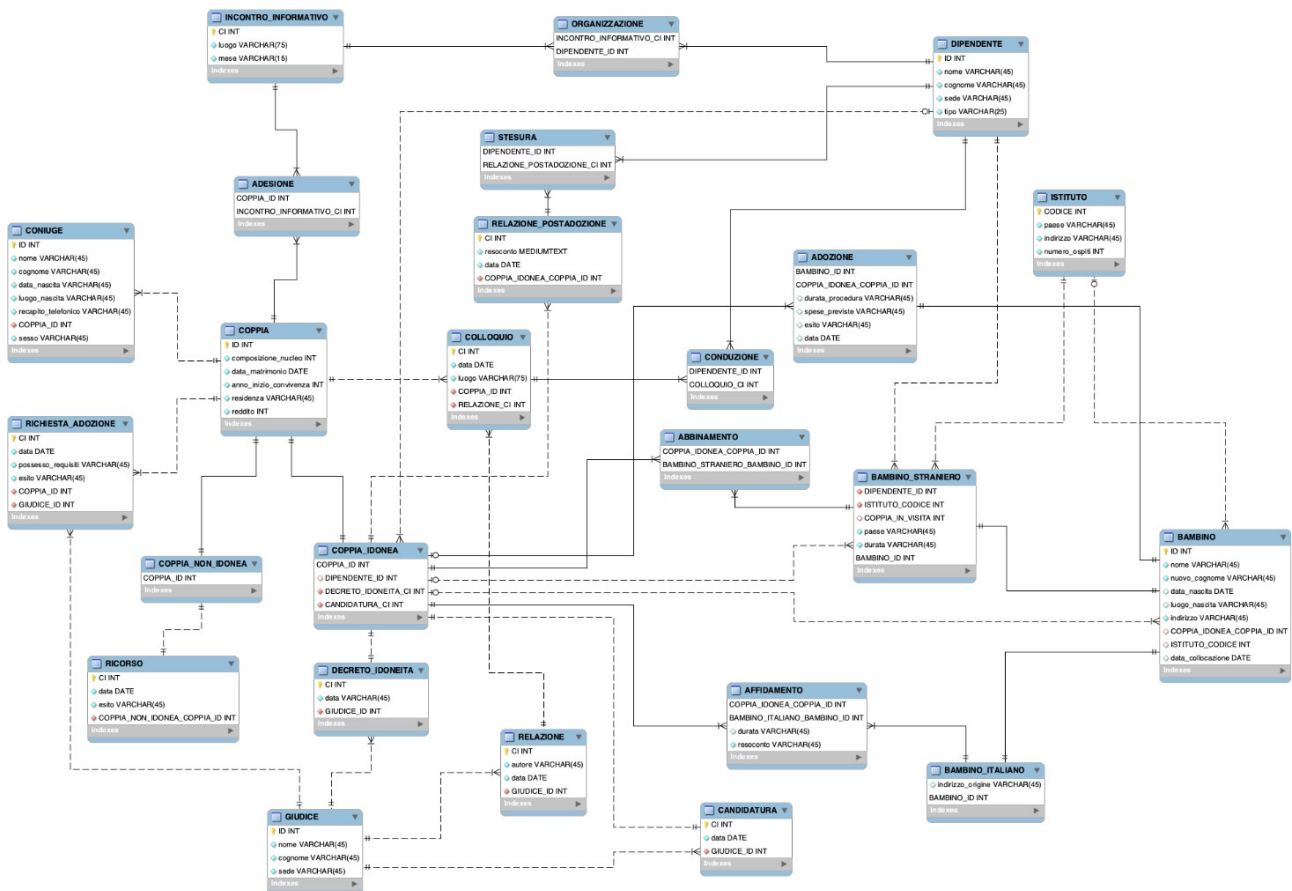
- GENERALIZATION OF DOCUMENTATION - DECREE - REPORT - APPLICATION

Merging the father into the daughters: the most frequent operations insist on the daughter entities so, as the generalization is total, we decided to merge the father entity into them. We did not include the 'review' relationship between 'eligibility decree' and 'judge' since we were explicitly told in the interview that the judge issues but does not review these decrees.



At this point we switched to the [relational model](#), following the standard rules; we simplified the schema by avoiding adding new tables for 1-to-1 and 1-to-N relationships.

After that we implemented the database on db110: we used MySQL's Modeling mode and synchronized everything. As a result of this we obtained about 25 tables, which we subsequently filled with numerous records; using these tables we thought of [representative examples of database usage](#).



To conclude, we created a notepad on Google Colab, containing codes to interact with the database and modify it on SQL through the Python interface.

The whole is available at the following link:

https://colab.research.google.com/drive/12YeY58LM5-C2vUZMLoAAhyXhcCt0BJVW?usp=sharing#scrollTo=R9nR_t5BP7hW

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