

DBWS-3

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1 Mapping Approach

In the "ISA" hierarchies, covering constraints are present.

Each Item in our Database must be one of the three listed items:

1. Clothes
2. Campus Card
3. Keys
4. Earphones

All the common properties of the three listed items are present in the parent table "Items". This alternative was used because each of the items will be defined with a different attribute. An alternative would have been a giant table with all the items with all the attributes present. But in this case there would have a lot of NULL values because for instance, we don't have any size for the keys. Therefore, the relations were divided.

The "Clothes" relation inside the "Item" will have other children. For now the decided clothes have been Shirt and Jeans. An alternative design would have been a giant table clothes consisting of all the types of the clothes present. But different types of clothes will have different attributes hence, the relations are being divided.

The "Person" table is the parent class for the table "Moderator". Moderators have the special privileges to delete the faulty lost and found items in the table. This is not a "covering constraint" because every person are not moderators. An alternative approach would have been a giant table with all the persons and the attribute to delete the items would be NULL for all the other except the moderators.