

CS306 - Group Project Step 2 - Natural Disasters

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Link to the Github repository: <https://github.com/dogacgorgulu/CS306-Group17>

Changes and Updates:

ISO Code Changes:

While importing the data for our tables, we realized that there were some rows for which the import process failed. When we checked these rows in our dataset, we found out that their ISO codes did not match the ISO codes in the countries table. For instance, in our dataset, the ISO code of Uruguay was noted as URG. However, it was correctly noted as URY in the countries table. Our countries table had similar issues with incorrect ISO codes, too. The ISO code of the Netherlands was mistakenly put as NDL when in fact, it is NLD. Moreover, the ISO code for Chile did not exist in the countries table which had to be fixed as well. These errors were small enough for us to change them by hand.

New Table:

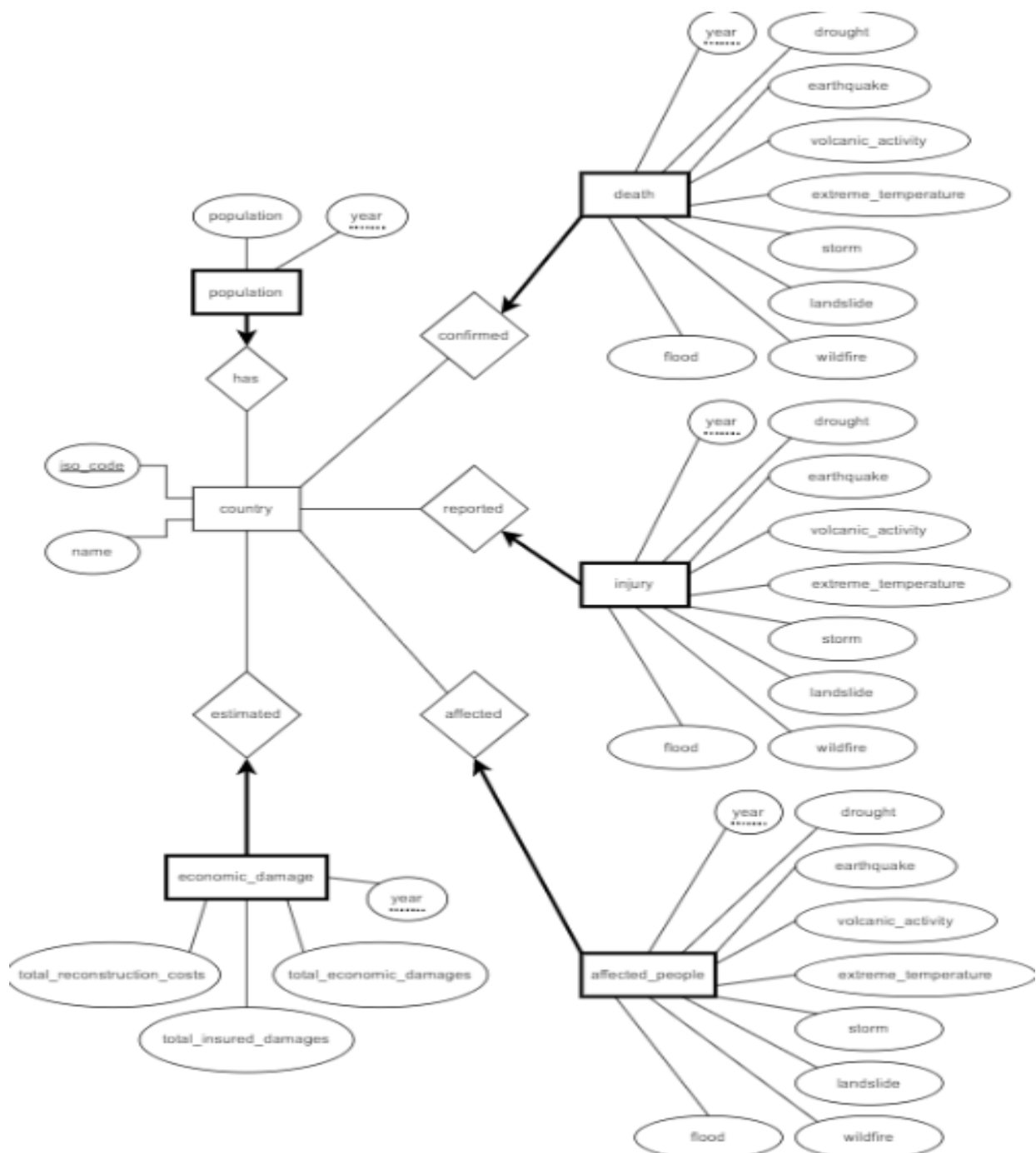
We've changed our "disasters" table into "affected_people" and modified a few attributes. Disasters has both iso_code and year values merged into one column so we separated them, and fixed a few invalid values in the number of affected people. Also, we've added a new table called "population" as a weak entity, which was just an attribute in our "country" table before.

Attribute changes:

Country names are only in the "country" table now, while it existed in every table before. Also, the weak entities had column names such as "nodf_drought" (number of people dead from drought) etc. but they are replaced just with "drought", so that they would be cleaner and the table name already defines them. "iso_code" still remains in all tables, though it's not displayed on the ER diagram in weak entities since it is a foreign key.

Updated ER diagram:

Some attributes such as “iso_code” and “name” are deleted. New entity called “affected_people” and a new relation called “affected” are added. Some attribute names are changed to make the table more intuitive.



SQL Statements and Explanations:

Create table SQL statements:

https://github.com/dogacgorgulu/CS306-Group17/blob/main/create_table_code.sql

We've converted six of our entity sets, named "country", "population", "death", "injury", "economic_damage" and "affected_people" into tables with the same names. "Country" has the country names and the iso codes of them, "death", "injury" and "affected_people" contain information about the number of deaths and injuries in each country in certain years (between 1950-2020) from each disaster. "Population" has the populations of countries in certain years and "economic_damage" has different kinds of economic damages each country received from all disasters. All tables except "country" are weak entities, with their attribute "year", being their partial key. Every table has an "iso_code" attribute; "countries" has it as its primary key and the rest of the tables has it as a foreign key, which references "countries", so that it would be easier to reach the desired value through it.

Log files:

<https://github.com/dogacgorgulu/CS306-Group17/blob/main/wb.txt>