

Project Part 1: E/R Diagram

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Project Name: Countries and International Affairs

1. Description

Our database application will be focused on presenting users with information about the country of their choice. Data on the country's trade partners, conflicts, treaties, leaders, migration and borders will be included. Though we weren't able to find this information together in a central location, we have found sources for the individual tables from reputable organizations including the UN, WHO and the World Bank. We've broken this information up into four entity sets and six relationships.

2. Entities

- a. *Countries*(countryCode, name, population, unStats, whoStats, wbStats)

This entity contains basic information about the country. Although a country's name is unique, we will also be using the country code as the key as it is often referenced in the datasets that we have in place of the country name.

- b. *Leaders*(name, term, gender)

This entity set stores country leader information. At the moment, we aren't aware of any leaders that share the same name, so we are leaning towards using name as the key. However, this may change if we find duplicate names for different countries. In this case, we might include birth location as part of the key as we can find that information.

- c. *Conflicts*(name, dateStart, dateEnd, description)

This entity records conflicts. Name will be used as the key.

- d. *Treaties*(name, description)

This is in some sense the reverse of conflicts. Similarly to that entity, we will be using name as the key.

3. Relationships

- a. *leaderOf*: many-to-one relationship between Leaders and Countries
- b. *borders*: many-to-many relationship between countries
- c. *tradesWith*(totalTrade): many-to-many relationship between countries
- d. *migration*(immigrants, emmigrants): many-to-many relationship between countries
- e. *conflictParty*: many-to-many relationship between Country and Conflicts
- f. *treatySignee*: many-to-many relationship between Country and Treaty