The relational schema of the Mondial database

Country: the countries (and similar areas) of the world with some data.

name: the country name code: the car code

capital: the name of the capital

province: the province where the capital belongs to

area: the total area

population: the population number

Economy: economical information about the countries.

country: the country code

GDP: gross domestic product (in million \$) agriculture: percentage of agriculture of the GDP service: percentage of services of the GDP industry: percentage of industry of the GDP

inflation: inflation rate (per annum) unemployment: unemployment rate

Politics: political information about the countries.

country: the country code

independence: date of independence (if independent)

wasdependent: the political body where the area was dependent of; usually a country (but not

always).

dependent: the country code where the area belongs to

government: type of government

Population: information about the population of the countries.

country: the country code

population_growth: population growth rate (per annum) infant_mortality: infant mortality (per thousand)

Countrypops: information about the population number of the countries in different years.

country: the country code

population: number of inhabitants

year: in which year

CountryLocalName: information about the local name of the country.

country: the country code

localname: the local name, usually in a local alphabet (UTF-8)

Language: infomation about the languages spoken in a country

country: the country code name: name of the language

percentage: percentage of the language in this country

Religion: information about the religions in a country

country: the country code name: name of the religion

percentage: percentage of the language in this country

EthnicGroup: information about the ethnic groups in a country

country: the country code name: name of the religion

percentage: percentage of the language in this country

borders: informations about neighboring countries. Note that in this relation, for every pair of neighboring countries (A,B), only one tuple is given – thus, the relation is *not* symmetric.

country1: a country code country2: a country code

length: length of the border between country1 and country2

Continent: Information about continents.

name: name of the continent area: total area of the continent

encompasses: information to which continents a country belongs.

country: the country code continent: the continent name

percentage: percentage, how much of the area of a country belongs to the continent

City: information about cities. name: the name of the city

country: the code of the country where it belongs to province: the name of the province where it belongs to

population: population of the city

elevation: the elevation (above sea level) of the city

latitude: geographic latitude longitude: geographic longitude

Citypops: information about the population number of the cities in different years.

city: the name of the city

province: the name of the province

country: the code of the country where it belongs to

population: number of inhabitants

year: in which year

CityLocalName: information about the local name of the city.

city: the name of the city

province: the name of the province

country: the code of the country where it belongs to

localname: the local name, usually in a local alphabet (UTF-8)

Province: information about administrative divisions.

name: the name of the administrative division country: the country code where it belongs to

area: the total area of the province

population: the population of the province

capital: the name of the capital

capprov: the name of the province where the capital belongs to

note that *capprov* is not necessarily equal to *name*. E.g., the municipality of *Bogota* (*Colombia*) is a province of its own, and *Bogota* is also the capital of the surrounding province *Cundinamarca*.

Provpops: information about the population number of the provinces in different years.

province: the name of the province

country: the code of the country where it belongs to

population: number of inhabitants

year: in which year

ProvinceLocalName: information about the local name of the province.

province: the name of the province

country: the code of the country where it belongs to

localname: the local name, usually in a local alphabet (UTF-8)

Organization: information about political and economical organizations.

name: the full name of the organization

abbreviation: its abbreviation

city: the city where the headquarter is located

country: the code of the country where the headquarter is located province: the name of the province where the headquarter is located

established: date of establishment

isMember: memberships in political and economical organizations.

organization: the abbreviation of the organization

country: the code of the member country

type: the type of membership

Lake: information about lakes. name: the name of the lake area: the total area of the lake depth: the depth of the lake

elevation: the elevation (above sea level) of the lake river: the river that flows out of the lake (may be null)

type: the type of the lake, e.g., salt, caldera, ...

coordinates: its geographical coordinates as (latitude, longitude)

Sea: information about seas. name: the name of the sea

depth: the maximal depth of the sea

area: the total area of the sea

River: information about rivers.

name: the name of the river
length: the length of the river
area: the size of its catchment area
river: the river where it finally flows to
lake: the lake where it finally flows to
sea: the sea where it finally flows to;

(note that at most one out of {river,lake,sea} can be non-null)

source: the coordinates of its source

source Elevation: the elevation (above sea level) of its source

mountains: the montains where its source is located

estuary: the coordinates of its estuary

estuary Elevation: the elevation (above sea level) of its estuary

RiverThrough: information about rivers flowing through lakes.

river: the name of the river

lake: the lake where it flows through

Mountain: information about mountains

name: the name of the mountain

mountains: the montains where the it belongs to

elevation: the maximal elevation of the summit of the mountain type: the type of the mountain, e.g. volcanic, (active) volcano, ... coordinates: its geographical coordinates as (latitude, longitude)

Island: information about islands name: the name of the island

islands: the group of islands where it belongs to

area: the area of the island

elevation: the maximal elevation of the island

type: the type of the island, e.g. volcanic, coral, atoll, ...

coordinates: its geographical coordinates as (latitude, longitude)

Desert: information about deserts. name: the name of the desert area: the total area of the desert

coordinates: its geographical coordinates as (latitude, longitude)

geo_Mountain: geographical information about mountains

mountain: the name of the mountain

country: the country code where it is located

province: the province of this country

Note that for a country there can be several provinces where the mountain is located in. analogous for geo_island, geo_desert, geo_river, geo_lake, geo_sea. Analogously, there are also geo_source and geo_estuary.

mergesWith: information about neighboring seas. Note that in this relation, for every pair of neighboring seas (A,B), only one tuple is given – thus, the relation is *not* symmetric.

sea1: a sea sea2: a sea

located: information about cities located at rivers, lakes, and seas.

city: the name of the city

country: the country code where the city belongs to province: the province where the city belongs to

river: the river where it is located at lake: the lake where it is located at sea: the sea where it is located at

Note that for a given city, there can be several lakes/seas/rivers where it is located at.

locatedOn: information about cities located in islands.

city: the name of the city

country: the country code where the city belongs to province: the province where the city belongs to

island: the island it is (maybe only partially) located on

Note that for a given city, there can be several islands where it is located on.

islandIn: information the waters where the islands are located in.

island: the name of the island

sea: the sea where the island is located in lake: the lake where the island is located in river: the river where the island is located in Note that an island can have coasts to several seas. MountainOnIsland: information which mountains are located on islands.

mountain: the name of the mountain island: the name of the island

RiverOnIsland: information which rivers are located on islands.

river: the name of the river island: the name of the island

LakeOnIsland: information which lakes are located on islands.

lake: the name of the lake island: the name of the island

Airport: information about airports iatacode: the IATA code of the airport

name: the name of the airport

country: the country code where the airport is located

city: in case the airport is associated with a city, the name of the city

province: the province where the city belongs to

island: if it is located on an island, the name of this island

latitude: geographic latitude longitude: geographic longitude

elevation: the elevation (above sea level) of the city gmtOffset: the GMT offset of the local time

Incrementally extended version: Mondial-III, 2017