Outdoor Air Pollution

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Repository link: https://github.com/baktirsukru/CS306Project

Following command is used to load data from the local disk to the database:
SET GLOBAL local_infile = 'ON';

There are six tables in the database outdoor_pollution:

1) CAUSES_OF_DEATH:
Table name: cause_of_death
The table is created with 7 entities. Then, an inner join is performed to match country names with the country ids from the COUNTRIES table. This table has an 'ENUMERATES' relationship with the COUNTRIES table.

```
Create Table causes_of_death(
        Country_name Varchar(100),
        Years INT,
        Outdoor_air_pollution INT,
        High_blood_pressure INT,
        Alcohol_use INT,
        Smoking INT,
        Drug_use INT
);

ALTER TABLE causes_of_death
ADD COLUMN country_id INT;

UPDATE causes_of_death cd
INNER JOIN countries c ON c.Entity = cd.Country_name
SET cd.country_id = c.country_id;

ALTER TABLE causes_of_death
ADD CONSTRAINT fk_country_id
FOREIGN KEY (country_id) REFERENCES countries(country_id);
```

**used Table Data Import Wizard for this table

2) CONCENTRATIONS_OF_AIR_POLLUTION:
Table Name: concentrations_of_air_pollution
Three Attributes in this table: Year country_id and concentration
Primary Key is: country_id, year
Have relationship: Measures

```
create table concentrations_of_air_pollution(
    country_id INT,
    year INT NOT NULL,
    concentration FLOAT,
    PRIMARY KEY(country_id, year),
    FOREIGN KEY (country_id) REFERENCES countries(country_id)

);

LOAD DATA LOCAL INFILE
'C:/Users/memrok/Desktop/concentrations_of_air_pollution.csv'
  INTO TABLE concentrations_of_air_pollution
  FIELDS TERMINATED BY ','
  IGNORE 1 ROWS
  (@Entity, Year, concentration)
  SET country_id = (SELECT countries.country_id FROM countries where @Entity =
country_name);
```

3) PERCENTAGE_OF_DEATHS_BY_AIR_POLLUTION:
This table is created to store the data of the relationship on the ER diagram.
Table Name: PERCENTAGE_OF_DEATHS_BY_AIR_POLLUTION
Three Attributes in this table: country_id, year and percentage
The primary key of this table is (country_id, year) pair because one country cannot have two data for the same year. Also, ‘country_id’ is the foreign key from the countries table.

```
create table PERCENTAGE_OF_DEATHS_BY_AIR_POLLUTION(
country_id INT,
      year INT NOT NULL,
      percentage FLOAT,
      PRIMARY KEY(country_id, year),
      FOREIGN KEY (country_id) REFERENCES countries(country_id)
```

```
);

LOAD DATA LOCAL INFILE
'C:/Users/Kemal/Desktop/PERCENTAGE_OF_DEATHS_BY_AIR_POLLUTION.csv
'
INTO TABLE PERCENTAGE_OF_DEATHS_BY_AIR_POLLUTION
FIELDS TERMINATED BY ','
IGNORE 1 ROWS
(@Entity, Year, Percentage)
SET country_id = (SELECT countries.country_id FROM countries where @Entity =
country_name);
```

4) OUTDOOR_POLLUTION_RATES_BY_AGE:

This table is created to store the data of the relationship on the ER diagram.
Table Name: pollution_rates_age
Seven attributes in this table: death_under_5, death_5_14, death_15_49, death_50_69, death_over_70, year and country_id.
Primary Keys: country_id, year.
Foreign Keys: country_id from countries table.

```
create table pollution_rates_age(
country_id int,
year int not null,
PRIMARY KEY(country_id, year);
FOREIGN KEY (country_id) REFERENCES countries(country_id),
death_under_5 float,
death_5_14 float,
death_15_49 float,
death_50_69 float,
death_over_70 float
);

LOAD DATA LOCAL INFILE
'C:/Users/Şükrü/Desktop/CS306/outdoor_pollution_rates_by_age.csv'
 INTO TABLE pollution_rates_age
 FIELDS TERMINATED BY ','
 IGNORE 1 ROWS
```

```
 (@Entity, Year, death_under_5, death_5_14, death_15_49, death_50_69,
death_over_70)
 SET country_id = (SELECT countries.country_id FROM countries where @Entity =
country_name);
```

5) COUNTRIES:

This table is created to store the country names and their codes. Id numbers are assigned to all countries to create foreign key attributes.

Table Name: countries
Three Attributes in this table: country_id, country_name, country_code
Primary key is chosen as ‘country_id’ since it is unique to each country.

```
create table COUNTRIES(
    country_id INT NOT NULL AUTO_INCREMENT,
    country_name varchar(255),
    country_code varchar(10),
    PRIMARY KEY(country_id)
);

LOAD DATA LOCAL INFILE 'C:/Users/Kemal/Desktop/COUNTRIES.csv'
  INTO TABLE countries
  FIELDS TERMINATED BY ','
  IGNORE 1 ROWS
  (country_name, country_code);
```

6) OZONE/PARTICULATE_MATTER_POPULATİON:

Table Name: concentrations_of_air_pollution
Four Attributes in this table: year, country_id, MatterPollution and OzonePollution
Primary Key is: country_id, year
Have relationship: States

```
  create table Death_rates_from_ozone_and_particulate_matter_polution(
  country_id INT,
  year INT NOT NULL,
  MatterPollution FLOAT,
  OzonePollution FLOAT,
  PRIMARY KEY(country_id, year),
  FOREIGN KEY (country_id) REFERENCES countries(country_id)
  );
```

```
   LOAD DATA LOCAL INFILE
'C:/Users/ataha/Desktop/Death_rates_from_ozone_and_particulate_matter_polution.csv'
   INTO TABLE Death_rates_from_ozone_and_particulate_matter_polution
   FIELDS TERMINATED BY ','
   IGNORE 1 ROWS
   (@Entity, Year, MatterPollution, OzonePollution)
   SET country_id = (SELECT countries.country_id FROM countries where @Entity =
country_name);
```