RISK FACTOR OF DEATHS

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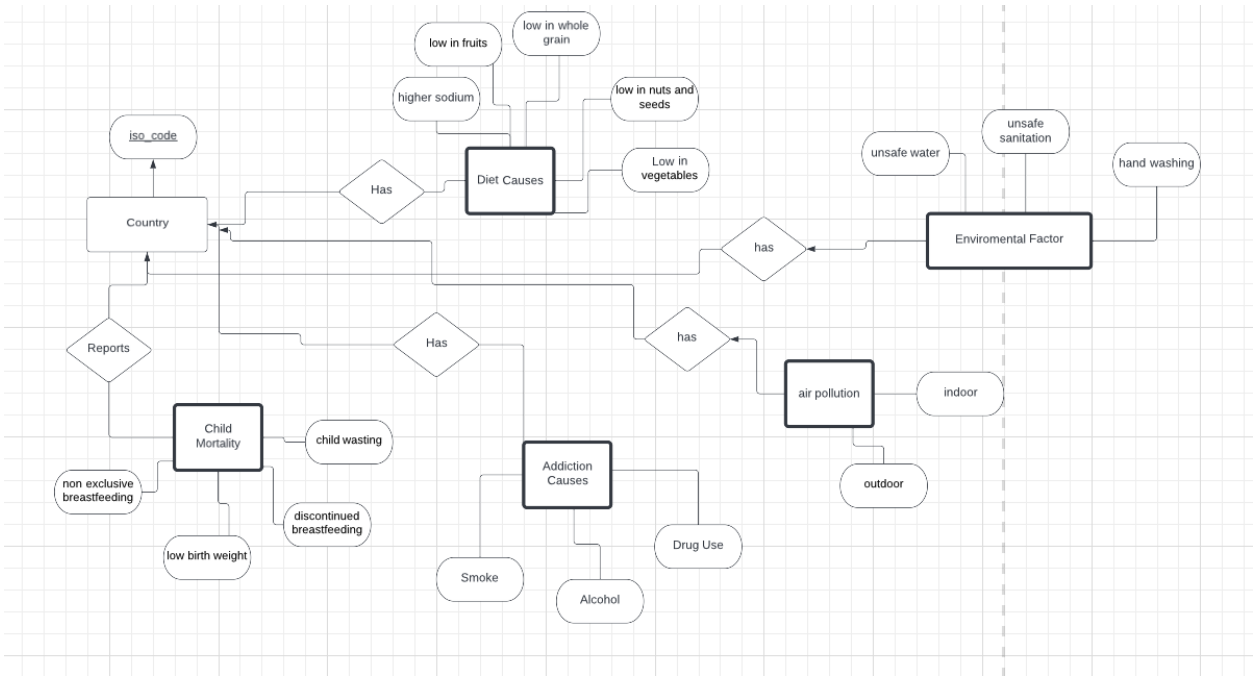
REPO: https://github.com/kaanakcay/CS306-Project.git

SQL AND LOG FİLES: https://drive.google.com/drive/folders/17p8SNM0d94n60gypxGKkzjU9FWbQaFt_?usp=share_link



We changed our dataset because we had some difficulties while looking for 5 entities. Although we found 5 entities, after the submission it is said that we should find 5 entities apart from Country and Continent. Therefore, we decided to collect data on various risk factors of deaths. For this, we downloaded 1 dataset called “Number of deaths by risk factor, World” under the title “Obesity”.

SQL STATEMENTS

We created a table called countries for location info. As iso_code is the primary key, it cannot be empty. Therefore, it is generated as NOT NULL. Other attributes are null as default as their area is filled later on with the data we get from the csv file.

```
CREATE TABLE `countries` (
  `iso_code` varchar(5) NOT NULL,
  `countries_name` varchar(50) DEFAULT NULL,
  PRIMARY KEY (`iso_code`)
```

Addiction is a death cause thus, an entity in our database. As iso_code is the primary key of the countries table it must be NOT NULL and it should be referenced by the addiction table. Besides, the whole table should be deleted as it is a weak entity of countries. Therefore we used ON DELETE CASCADE option. As smoke, drug-use and alcohol are numbers (of death), their type is int.

```
CREATE TABLE `addiction` (
  `smoke` int DEFAULT NULL,
  `drug_use` int DEFAULT NULL,
  `alcohol` int DEFAULT NULL,
  `iso_code` varchar(5) NOT NULL,
  PRIMARY KEY (`iso_code`),
  CONSTRAINT `addiction_ibfk_1` FOREIGN KEY (`iso_code`) REFERENCES `countries`
(`iso_code`) ON DELETE CASCADE
```

We created a weak entity called air_pol. As it is a weak entity, it should be deleted when countries table is deleted. Therefore we used ON DELETE CASCADE option and marked iso_code as NOT NULL.

```
CREATE TABLE `air_pol` (
  `indoor` int DEFAULT NULL,
  `outdoor` int DEFAULT NULL,
  `iso_code` varchar(5) NOT NULL,
  PRIMARY KEY (`iso_code`),
  CONSTRAINT `air_pol_ibfk_1` FOREIGN KEY (`iso_code`) REFERENCES `countries`
(`iso_code`) ON DELETE CASCADE
```

Same as above, child_moratlity is a weak entity. Thus we applied the same operations.

```
CREATE TABLE `child_mortality` (
  `child_wasting` int DEFAULT NULL,
  `non_bfeeding` int DEFAULT NULL,
  `low_birth_weight` int DEFAULT NULL,
  `d_bfeeding` int DEFAULT NULL,
  `iso_code` varchar(5) NOT NULL,
  PRIMARY KEY (`iso_code`),
  CONSTRAINT `child_mortality_ibfk_1` FOREIGN KEY (`iso_code`) REFERENCES `countries`
(`iso_code`) ON DELETE CASCADE
```

Same as above, diet is a weak entity. Thus we applied the same operations.

```
CREATE TABLE `diet` (
  `high_sodium` int DEFAULT NULL,
  `low_fruits` int DEFAULT NULL,
  `low_nuts_seeds` int DEFAULT NULL,
  `low_whole_grain` int DEFAULT NULL,
  `low_vegetables` int DEFAULT NULL,
  `iso_code` varchar(5) NOT NULL,
  PRIMARY KEY (`iso_code`),
  CONSTRAINT `diet_ibfk_1` FOREIGN KEY (`iso_code`) REFERENCES `countries`
(`iso_code`) ON DELETE CASCADE
```

Same as above, env_factor is a weak entity. Thus we applied the same operations.

```
CREATE TABLE `env_factor` (
  `unsafe_water` int DEFAULT NULL,
  `unsafe_sanitation` int DEFAULT NULL,
  `hand_washing` int DEFAULT NULL,
  `iso_code` varchar(5) NOT NULL,
  `air_pollution` int DEFAULT NULL,
  PRIMARY KEY (`iso_code`),
  CONSTRAINT `env_factor_ibfk_1` FOREIGN KEY (`iso_code`) REFERENCES `countries`
(`iso_code`) ON DELETE CASCADE
```

Deleted attributes from original dataset:

- High systolic blood pressure
- Secondhand smoke
- Unsafe sex
- Low physical activity
- High fasting plasma glucose
- High body-mass index
- Iron deficiency
- Child stunting
- Vitamin A deficiency
- Low bone mineral density