

Project: Deaths by Natural Disaster

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Sources:

- World Health Organization Global Health Observatory
 - <http://apps.who.int/gho/data/node.sdg.13-1-data?lang=en>
 - WHO_Disaster_Data.xlsx
- International Red Cross and Red Crescent Federation
 - <http://data.ifrc.org/fdrs/data-download>
 - RC_Disaster_Data.csv
 - RC_Disaster_Codes.xlsx

Project Report

E (xtract): Original data sources and how the data was formatted

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 - RC_Disaster_Data.csv
 - RC_Disaster_Codes.xlsx
- Validated both reported mortality rates from the WHO and Red Cross were based on 1:100,000 people for normalization of data.

T (ransform): What data cleaning or transformation was required

Cleanup process for REDCC

- Created dataframe from CSV file
 - Code to show list of headers from full file
 - Selected only the columns we needed for analysis
 - Country
 - Years – 2012 to 2016
 - GDP
 - LifeExp
 - Population
 - Child Mortality
 - Maternal Mortality
- Filtered out data to only include years that match WHO data (2012-2016)
- Grouped by Country and determined the mean for the following data columns

- GDP
- LifeExp
- Population
- Child Mortality
- Maternal Mortality
- Added a new column “Year” which represents the averages of 2012-2016
- Exported as CSV file

Cleanup process for WHO

- Determine sheets from excel file we needed to pull data from (data-text and Country sheets)
- Created two dataframes from excel file (data-text and Country)
 - List of headers for each dataframe
 - Selected columns we wanted
 - From data-text
 - Years – 2012 to 2016
 - Country
 - Gender
 - From Country
 - Country
 - Mortality
 - Land Area
 - Region
 - Renamed column headers
- Merged both dataframes on “Country” name column
- Filtered column “Gender” to get combined mortality rate for both sexes by Country
- Exported as CSV file

L (oad): The final database, tables/collections and why this was chosen

- Loaded final production into relational database (Postgres) titled “Mortality” where the schema is titled “Death_by_Natural_Disasters.”
 - Selected relational database because data already existed in relational database from sources selected.
- Final tables or collections used in production database
 - Red Clean Table
 - Imported from red_clean.csv
 - WHO Clean Table
 - Imported from who_clean.csv
- Created SQL statement to provide following output:
 - Join the tables on Country column
 - Reorder columns for convenient viewing
 - Included monetary output of GDP column and formatted per billions of dollars
 - Included decimal rounding for mortality columns
 - Excluded null values for mortality column