EduRank

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Github Repository:
https://github.com/hayrettins/EduRank

Project Description

The objective of this project is to analyze the relationship between literacy rates and the percentage of money spent on education in countries. To achieve this objective, we will develop a database application that stores data related to literacy rates, education spending, student enrollment, and other relevant socio-economic factors for countries around the world. This project will involve data cleaning, integration, and analysis to extract insights from the data. The database application will store information such as the name of the country, its literacy rate, percentage of money spent on education, population, age, gender, student enrollment and quality teacher employment. The datasets will be taken from “Our World In Data”(website).

The purpose of this project is to present a demographical map of the world concerning literacy, education status and address the persistent challenge of illiteracy. By identifying the relationship between literacy rates and education spending, we can gain insights into the effectiveness of education policies and interventions. We can also identify best practices and areas where additional investments can be made to improve education outcomes.
We selected 7 datasets and then we cleaned them. We concentrated on the data which would serve the aim of our project the best. We ended up utilizing young male literacy, young female literacy, adult male literacy, adult female literacy ,share of education in government expenditure, share of primary teachers qualified and primary enrollment rate data. We erased the data that did not have any country code. We also erased data concerning continents, duplications. Some were too outdated and some covered way too much time interval so we had to cut some years off. The entity-relationship diagram of the project consists of 7 entities(each have their primary and descriptive attributes) and 7 relations. The name of the primary attributes for each entity are respectively the entity names and id’s put together. country and continent, entities have their name attributes which serves as their descriptive attribute, while literacy report has multiple descriptive attributes such as gender, rate and age.

All of these attributes are taken from our dataset columns except report_id , school_id, student_id ,payment_id and teacher_id , which we added so those entities would have their primary attribute. We stored the date data as an attribute for all relations so that it may serve as foreign key between entities. We used participation and key constraints between school-enrolls in, teacher-teaches, country-has, country-allocates, country-reports, school-employs and continent-contains relations. In summary, this project will contribute to the global effort to improve access to education and reduce illiteracy rates by identifying the factors that contribute to education outcomes.

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