Basic Databases – Week 04

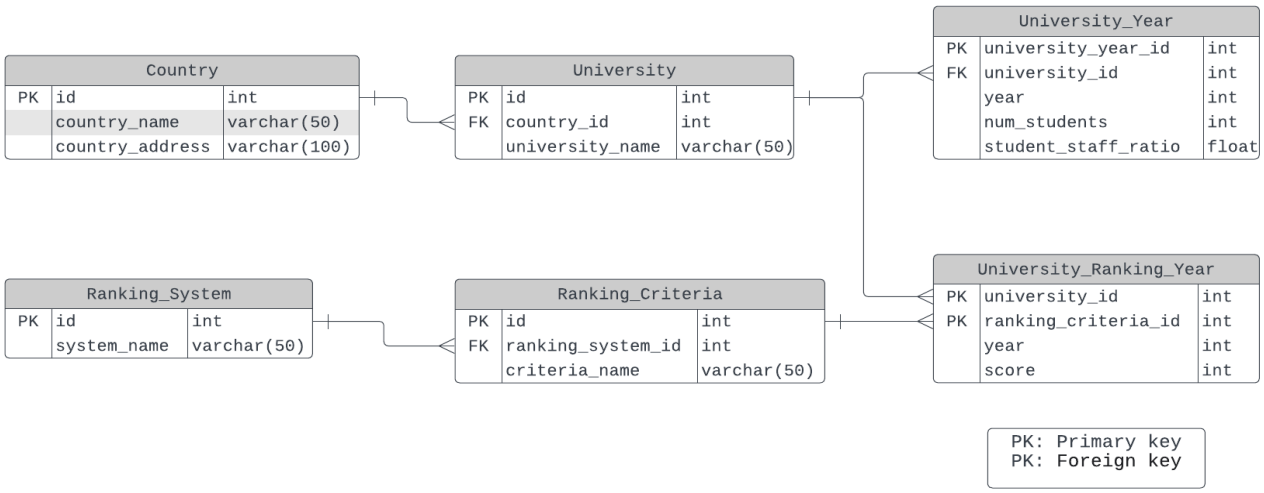

Table Explanations

Let's look at what the tables and columns mean:

Tables	Description
Country	This is a simple list of countries that were in the data set. I don't think it's a complete list of all countries, but it's enough for this data set
University	A list of universities that were ranked in this system. Each university is related to a country
Ranking_System	This contains the three different ranking systems used: Times Higher Education World University Ranking, Shanghai Ranking, and Center for World University Rankings.
Ranking_Criteria	This table contains the different criteria used in each ranking system, such as Citations and Quality of Education. It also contains criteria for Total Score for each system
University_Ranking_Year	This table contains the score for each year for each university and ranking criteria. It's the largest table in the database
University_Year	The university_year table contains values for measurements such as the number of students and the student to staff ratio for each university in several years.

Using the 'University' database created in week 3, write SQL statements to:

1. Create a new table called University_Year and insert 5 records into the University_Year table. **(1 point)**

Column Name	Data Types	Constraints
university_year_id	int	PK
university_id	int	FK
year	int	Use **CHECK** constraint to ensure *year* is > 1700
num_students	int	Use **CHECK** constraint to ensure *the number of students* is >= 0
student_staff_ratio	float	

2. Display the id and university_name from the University table using aliases 'University ID' and 'University Name', respectively. **(0.5 point)**

3. Modify the Country table as follows: **(1 point)**

   a. Add a new column called country_address.

   b. Change the data type of country_name to varchar(100).

4. Modify the University_Ranking_Year table as follows: **(1 point)**

   a. Use a CHECK constraint to ensure that the year is greater than 1800.

   b. Use a CHECK constraint to ensure that the score is between 0 and 10, inclusive.

5. Delete a record from the University_Year table where university_year_id equals x (x is your input value). **(0.5 point)**

6. Update the University table and set the university_name to 'Wrocław University of Science and Technology' where the id equals x (x is your input value). **(0.5 point)**

Requirements:

1. Do not use automated query generation tools, such as Chatgpt.
2. For each query, you must reformat the query to be easily readable and understandable by adding appropriate line breaks, indentation, and comments. The query must be formatted in a way that clearly shows the logic and structure of the query and makes it easy to identify the purpose and meaning of each part of the query. **(0.5 point)**
3. Please ensure that assignment file is submitted in PDF format.

--- The end ---