HW2

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千年倫子

1. Path: NYCU-DB-lab2/1.3 scheme/hw2ERdiagram.pdf in github

   <Avoid redundancy>

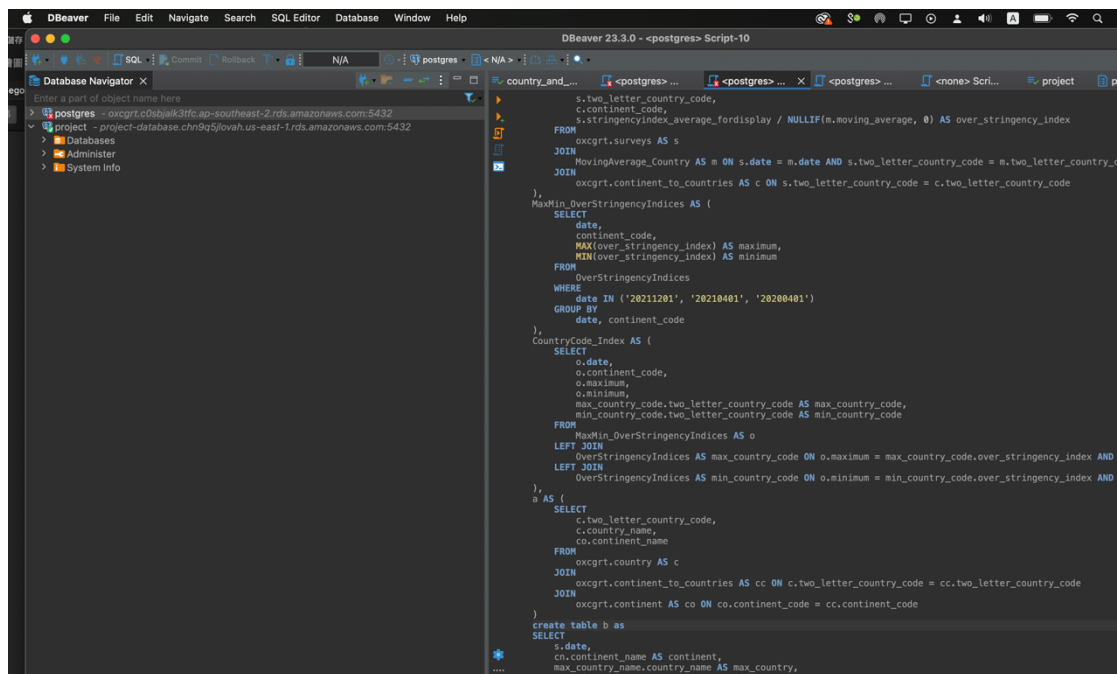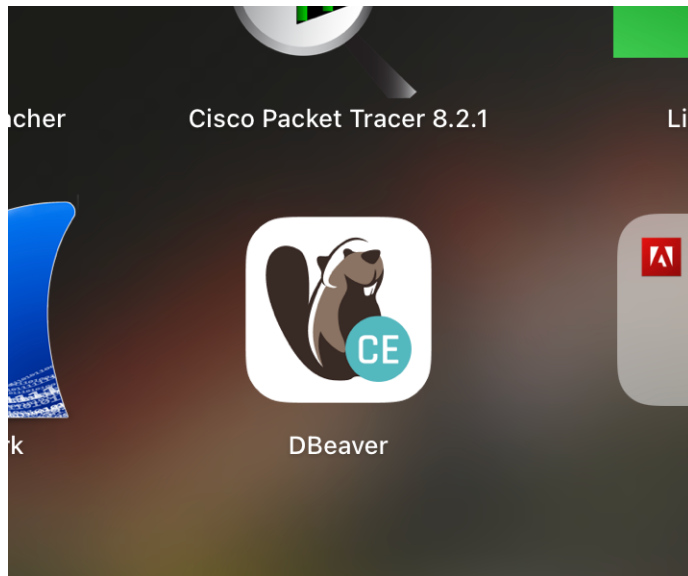   Because "RegionName","RegionCode"are NULL. And "Jursdiction"are all Nat_total. So these three are removed.

2. <Add Constraints>

   We have to make the new constrains which connects "Country" and "Continent".

Somehow I couldn't go into AWS, so I used DBeaver built the pgAdmin4.

Path: NYCU-DB-lab2/2
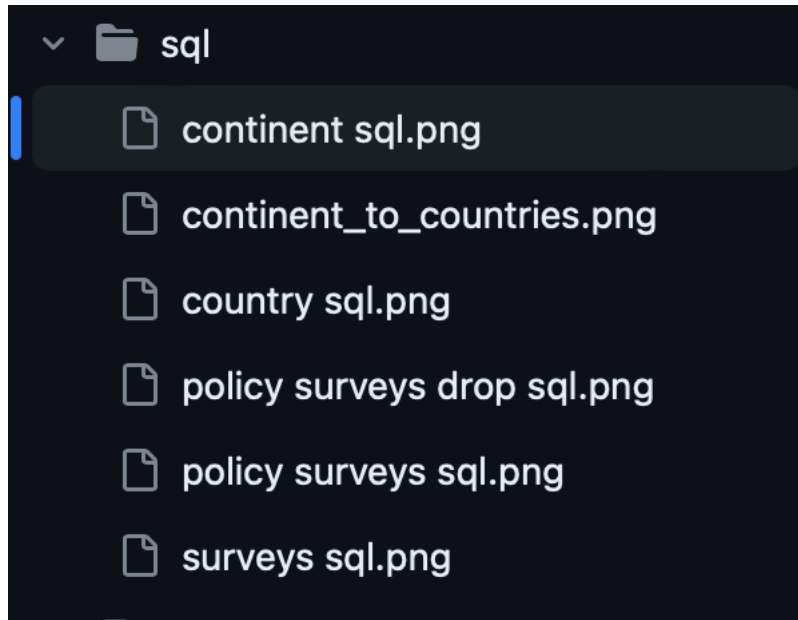

<schema>

Path: NYCU-DB-lab2/1.3 scheme/scheme 3.png

<how to create the table>

Path: NYCU-DB-lab2/sql

\<the result of creating tables\>

Path: NYCU-DB-lab2/table csv.zip

Basicly, all datas from original csv file have no repeat group and all attributes are single value and atomic. We can say the original table are already 1NF.

\<test normal form \>

table	cause	result
country	all non-trivial functional dependencies $\alpha \rightarrow \beta$ in F^+, α are super key.	BCNF

continent	all non-trivial functional dependencies $\alpha \rightarrow \beta$ in F^+, α are super key.	BCNF
Contient_to_countries	all non-trivial functional dependencies $\alpha \rightarrow \beta$ in F^+, α are super key.	BCNF
Policy_surveys	all non-trivial functional dependencies $\alpha \rightarrow \beta$ in F^+, α are super key.	BCNF
statistic	all non-trivial functional dependencies $\alpha \rightarrow \beta$ in F^+, α are super key.	BCNF
surveys	all non-trivial functional dependencies $\alpha \rightarrow \beta$ in F^+, α are super key.	BCNF

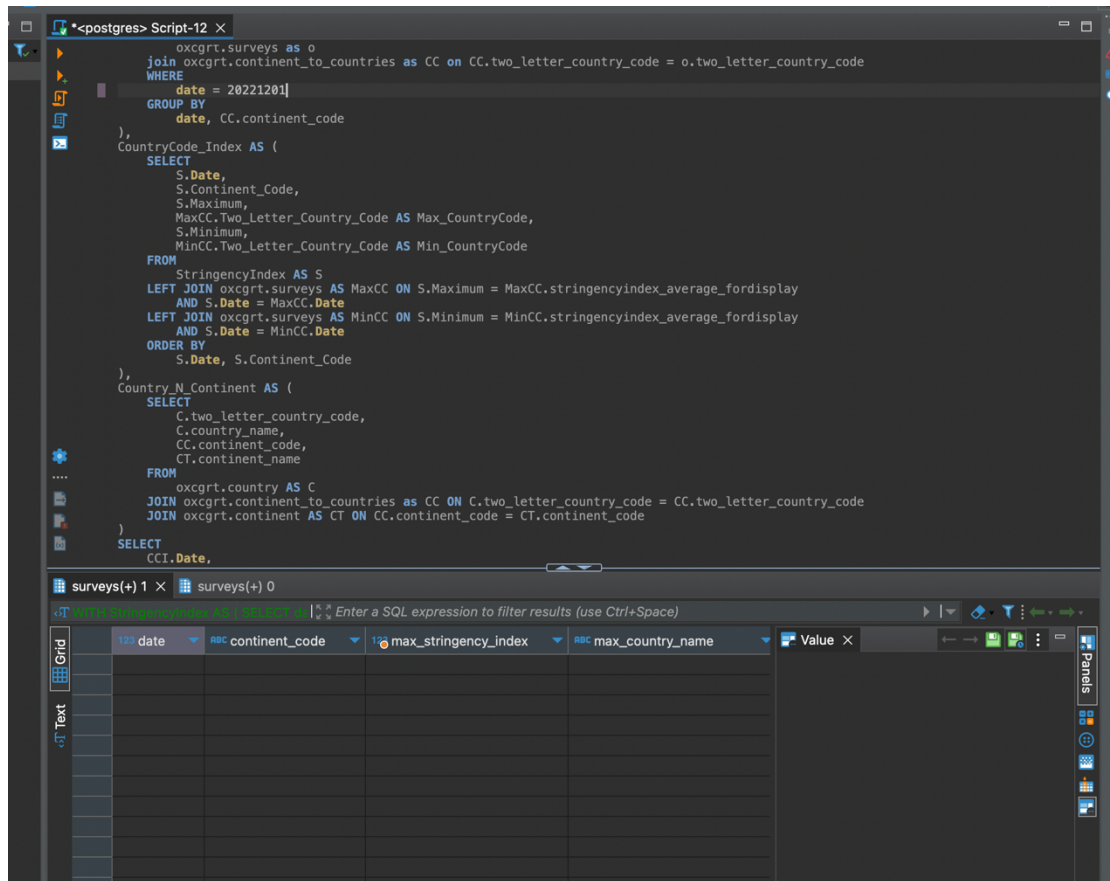| table	functional dependency
country	Two_Letter_Country_Code -> R

	Three_Letter_Country_Code -> R Country_Name -> R Country_Number -> R
continent	Continent_Code -> Continent_Name Continent_Name -> Continent_Code
Continen_to_countries	{Continent_Code, Two_Letter_Country_Code} -> R
Policy_surveys	{Two_Letter_Country_Code, Date} -> R
statistic	{Two_Letter_Country_Code, Date} -> R
surveys	{Two_Letter_Country_Code, Date} -> R

6.The SQL statements (in .sql file) and output results of 4a (10pts)

Path: NYCU-DB-lab2/資料庫 HW2

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Repletion: 2021/12/01 is no data(below)

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Repletion: 2021/12/01 is no data(below)

8.Database auto-update (from the data provider's GitHub repo) strategy and implementation (bonus 20pts)

I have uploaded here.

NYCU-DB-lab2 Private

Updated on Dec 14, 2023
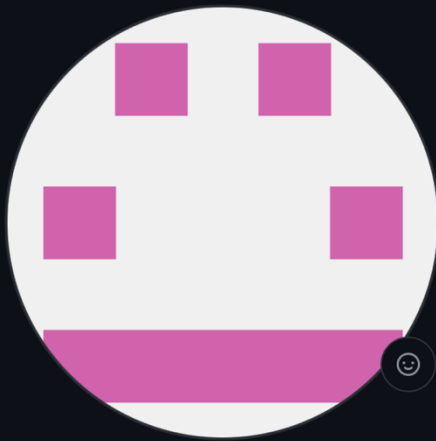
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