

cia (name 國家, region 地區, area 面積, population 人口, gdp 國民生產總值)

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- a Show the name, region and population of all countries. 列出所有國家、地區、人口
- b Give the name and the per capita GDP for those countries with a population of at least 200 million. 列出人口至少 2×10^8 的國家名稱、人均收入(=GDP/人口)
- c Show the name and population (in millions 10^6) for the countries of 'South America' 列出所有南美國家的名稱、及人口 (以百萬為位)
- d Show the population for 'France', 'Germany' & 'Italy' 列出法國、德國、義大利的人口
- e Identify the countries whose names include the word 'United'. 名稱包含 United 的國家
- f Which countries have populations larger than 'United States'? 哪些國家人口比美國多
- g List the regions that contain 'Iraq' or 'Iran' 以上國家屬哪些地區?
- h List all details of countries in the regions containing 'Iraq' or 'Iran'
列出以上國家所屬地區內的所有國家及其資料
- i Show the European countries with a per capita GDP greater than that of 'United Kingdom' 有哪些歐洲國家的人均收入，要比英國多?
- j Which country has a population that is more than Kenya but less than Canada?
哪些國家的人口比肯雅少，但比加拿大多?
- k Which countries have a GDP greater than ANY European country?
哪些國家的總收入，比任何一個歐洲國家還要多?
- l Find the largest country in each region. 列出每個地區，面積最大的國家名稱
- m Find the region in which all countries have a population of less than 1
哪個地區，區內的所有國家人口均少於 1?
- n* Some countries have populations at least three times that of any of their neighbors (in the same region). Give the countries and regions.
有些國家的人口，是同區任何國家的人口至少 3 倍，試列出國家名稱、及所屬地區。
- o The names and population densities for the very large countries (over 3×10^6)
哪些國家的面積大於 3×10^6 ，列出名稱、人口密度(人口/面積)
- p Find those very small (less than 4×10^5) but very rich (GDP over 10^{12}) countries.
找出所有面積少於 4×10^5 ，但非常富有(GDP 多於 10^{12})的國家
- q Which of following is/are country name(s)? Ceylon, Iran, Persia and Sri Lanka
以上哪些名字是國家名稱?
- r What are the countries beginning with 'D'? 哪些國家的名稱是以'D'字開頭?
- s Which countries are not too small and not too big ($4 \times 10^5 - 3 \times 10^6$)? 面積中等的國家

2 Aggregate 總結性 functions 函數 such as COUNT, SUM, MAX, MIN and AVG

- a Show the total population of the world. 全球總人口多少?
- b List all the regions without repetition. 列出所有地區名稱 (不可重複)
How many regions are there? 共有多少個地區?
- c List the countries with GDP greater than the whole of Africa
哪些國家的 GDP 大於所有非洲國家的 GDP 總和?
- d For each region, show the region and number of countries. 地區及區內有多少國家
- d₂* Find the largest and the 2nd largest countries (with areas) of each region.
列出地區名稱、及區內面積最大的 2 個國家 (必須顯示面積)
- e For each region, show the region and number of countries with populations of at least 10 million (10^7). 每個地區，人口至少 10^7 的有國家多少?
- f List the regions with total populations of at least 100 million (10^8).
哪些地區的總人口至少有 10^8 ，列出地區名稱及總人口
- g The total population and GDP of Europe. 歐洲的總人口 及 GDP
- h Show the large countries (over 3×10^6) in descending order of population.
列出面積大於 3×10^6 的國家，按人口(由大至小)排列
- i The regions with total populations and areas, sorted by population.
列出每地區的總人口、及總面積，按人口排列
- j The regions with total populations and areas, sorted by population. 同上，
Include only those regions with names that include 'America'. 但只顯示美洲國家
- k Show the countries with area smaller than 'United Kingdom'
but with larger population than UK. 哪些國家面積比 UK 小，但人口卻比 UK 多?
- l How many regions are there? 全球共分多少個地區?

3 (ACME accounts) Invoices and receipts 發票、收據

table: **customer** 顧客資料

cust_id	cust_name	cust_addr
C001	Wile E Coyote	www.hotmail.com
C002	Sylvester	www.warnerbros.com
C003	Tom Brown	www.mgmt.com
C004	Elmer Fudd	www.yahoo.com
C005	Dick Dastardly	www.email.com

table: **product** 產品編號、名稱、單價

prod_code	description 產品名稱	unit_price
P001	Anvil	75
P002	Portable holes	5
P003	Horseshoe magnet	80
P004	TNT	50
P005	Bomb	50
P006	Elastic band	2
P007	Rocket roller skates	80
P008	Space ship	60000000
P009	Road sign "Diversion Left"	30
P010	Road sign "Diversion Right"	30

table: **shipped** 貨物付運

cust_id	ship_date	prod_code	quantity
C001	10-Jul-98	P003	1
C001	22-Jul-98	P004	2
C001	22-Jul-98	P005	12
C001	23-Jul-98	P005	12
C001	23-Jul-98	P006	1
C001	23-Jul-98	P007	1
C005	01-Jan-98	P008	1

table: **receipt** 收據

cust_id	rec_date	pay_term	amount
C001	15-Jul-98	Cheque	80
C001	23-Jul-98	Cash	700
C005	10-Feb-98	DD	5
C005	10-Mar-98	DD	5
C005	10-Apr-98	DD	5
C005	10-May-98	DD	5
C005	10-Jun-98	DD	5
C005	10-Jul-98	DD	5

- How many customers are listed on the database? 數據庫中有多少個顧客?
- Identify customers 'C001', 'C005' 顧客名稱
- Identify products 'P001', 'P007' 產品名稱
- How many receipts are on the system? 數據庫中有多少張收據?
- View the payments made by customer 'C001' 顧客'C001' 的付款情況
- View the shipments made to customer 'C001' by date order 顧客的貨物付運情況
- Prepare a list of all items purchased by customer 'C001'. Show the date, the product description, the unit price, the quantity shipped and the total value (quantity * price). 顧客'C001' 訂購產品清單 (包括: 日期、產品名稱、單價、數量、總值)
- Calculate the total value of all items shipped to customer 'C001' on '23-JUL-1998'. 顧客'C001' 在'23-JUL-1998'的訂單總值多少
- Prepare a shipping statement 貨物付運單 for customer 'C001' it should show the date, the legend 'Delivery' and the total value of the products shipped on each day. 必須顯示每日付運貨品總值
- Prepare a receipts statement 收據 for customer 'C001' it should show the date, the notes(pay-term 付款方式) and the amount received 收到款項.

- k Use the UNION command to prepare a full statement 單據 for customer 'C001'. It should be laid out 如下顯示 as follows. (Note that the values shown below are not correct.) You may be able to use " or NULL for blank values - if necessary use 0.

10-JUL-1998	Delivery	100.00
15-JUL-1998	Cheque	100.00
22-JUL-1998	Delivery	210.00
23-JUL-1998	Delivery	45.00
23-JUL-1998	Cash	255.00

- l Create a list showing the outstanding balance 結餘 for each customer 顧客.

4 Edinburgh Buses 愛丁堡巴士路線

Self-Join

- f. Give a list of all the services which connect stops 115 and 191. ('Haymarket' & 'Portabello') 哪些巴士線會經過(連接)以下兩站 115,191?

- g. Give a list of the services which connect the stops 'Craiglockhart' and 'Tollcross' 哪些巴士線會經過(連接)以下兩站 'Craiglockhart' and 'Tollcross'?

- h. Give a list of the stops which may be reached from 'Craiglockhart' by taking one bus. Include the details of the appropriate service.

由 'Craiglockhart' 出發，若只乘一輛巴士(不轉車)，可以到達哪些巴士站？請同時列出巴士服務資料。

- i. Show how it is possible to get from Sighthill to Craiglockhart.

顯示如何由 Sighthill 乘巴士到達 Craiglockhart?

You might intersect all the places from Craiglockhart with all the places from Sighthill. This would at least be a start.