Quiz_01 (2019.10.14+21) Answer

Table: **student_detail**

std_id	std_name	std_city_id	std_cell	std_address	dept_id	std_grade
4070E001	John Mike	A1	910971234	skyline Dr. no. 120	IE	90
4070E002	Wom Try	A2	91029123	station Dr. no. 11	IE	45
4070E003	Mike Fire	A1	912123456	Fire Street no 11.	IM	60
4070E004	Dave Van	A3	901233333	Make Street no. 22	ME	77
4070E005	Mike Wu	A1	91198987	Fire Dr. no 25	IE	88
4070E006	Wuber Eat	A2	92298765	Fire Dr. no 27	IM	55
4070E007	Mike Wu	A2	91198983	Water Dr. no 25	IE	22
4070E008	Wuber Eat	A3	92298753	Fire Dr. no 27	IE	99

Table: **city_detail**

std_city_id	std_city_name
A1	Taipei
A2	Tainan
A3	Kaoshiung
A4	Taichung

Table: **dept_detail**

dept_id	dept_name
IE	Information Engineer
IM	Information Management
ME	Mechanic Engineering

註:

1. 1 個 Table 可以解決,但使用了兩個以上(含)Tables,結果一樣的 SQL 敘述,扣分!(註:資料多時,因影響資料庫效能!)
2. 顯示結果需一樣,才能得該題全部分數。
3. 請將該題解題的 SQL 敘述 放於 notepad。並且編題號。
4. 公平原則,左右不坐人。

Q1: 請使用一 SQL 述敍，選取 std_city_id 代碼為 A1，且 dept_id 代碼為 IE 的學生資料, 如下 。<mark>(即，顯示住在台北的資工系學生相關資料)</mark>

std_id	std_name	std_city_id	std_cell	std_address	dept_id	std_grade
4070E001	John Mike	A1	910971234	skyline Dr. no. 120	IE	90
4070E005	Mike Wu	A1	91198987	Fire Dr. no 25	IE	88

```sql
SELECT *
FROM student_detail
WHERE std_city_id = "A1" AND dept_id = "IE"
```

Q2: 請使用一 SQL 述敍，選取 std_city_id 代碼為 A1，且 dept_id 代碼為 IE 或是 IM 的學生資料，如下。<mark>(即，顯示住在台北的資工系或是資管系的學生相關資料)</mark>

姓名	手機號碼	系代碼	系名
John Mike	910971234	IE	Information Engineer
Mike Fire	912123456	IM	Information Management
Mike Wu	91198987	IE	Information Engineer

```sql
SELECT std_name AS "姓名", std_cell AS "手機號碼", dept_detail.dept_id AS "系代碼", dept_name AS "系名"
FROM student_detail, dept_detail
WHERE ((std_city_id = "A1" AND dept_detail.dept_id = "IE") OR (std_city_id = "A1" AND dept_detail.dept_id = "IM")) AND (student_detail.dept_id = dept_detail.dept_id)
```

Q3: 請使用一 SQL 述敍，選取學生姓名相異的數目，如下。<mark>(即，顯示所有學生相異的總數)</mark>

姓名相異數
6

```sql
SELECT COUNT(DISTINCT(std_name)) AS "姓名相異數"
FROM student_detail
```

Q4. 請使用一 SQL 述敍，選取學生住在不同城市的資訊，如下。<mark>(即，顯示學生住在不同城市的學生數)</mark>

城市代碼	城市名稱	個數
A3	Kaoshiung	2
A2	Tainan	3
A1	Taipei	3

```sql
SELECT student_detail.std_city_id AS "城市代碼", city_detail.std_city_name AS "城市名稱", COUNT(*) AS "個數"
FROM student_detail, city_detail
WHERE student_detail.std_city_id = city_detail.std_city_id
GROUP BY student_detail.std_city_id DESC
```

Q5: 請使用一SQL 述敘，選取 dept_id 代碼為 IE，且成績及格的學生資料，如下。<mark>(即, 顯示資工系成績及格的學生相關資料)</mark>

姓名	成績
John Mike	90
Mike Wu	88
Wuber Eat	99

```sql
SELECT std_name AS "姓名", std_grade AS "成績"
FROM student_detail
WHERE dept_id = "IE" AND std_grade >= 60
```

Q6: 請使用一SQL 述敘，選取 dept_id 代碼為 IE，且住在 Taipei，其成績及格的學生資料，如下。<mark>(即, 顯示資工系學生住在Taipei 成績及格的學生相關資料)</mark>

姓名	成績	城市
John Mike	90	Taipei
Mike Wu	88	Taipei

```sql
SELECT std_name AS "姓名", std_grade AS "成績", city_detail.std_city_name AS "城市"
FROM student_detail, city_detail
WHERE (dept_id = "IE" AND std_grade >= 60 AND (city_detail.std_city_name = "Taipei") AND (city_detail.std_city_id = student_detail.std_city_id)
```

Q7: 請使用一SQL 述敘，選取學生成績不小於 70 分且姓名中有 Mike 字樣的學生資料，如下 。<mark>(即，顯示資工系住在 Taipei 成績及格的學生相關資料)</mark>

姓名	成績	城市	手機號碼
John Mike	90	Taipei	910971234
Mike Wu	88	Taipei	91198987

```sql
SELECT std_name AS "姓名", std_grade AS "成績", city_detail.std_city_name AS "城市", std_cell AS "手機號碼"
FROM student_detail, city_detail
WHERE (std_grade >= 70 AND std_name LIKE "%Mike%") AND
(city_detail.std_city_id = student_detail.std_city_id)
```

Q8: 請使用一SQL 述敘，選取學生住在不同城市(註: city_detail)，但居住同一城市人數大於2 的資訊，如下。<mark>(即，顯示學生住在不同城，顯示學生住在不同城市的學生數，但居住同一城市人數大於2)</mark>

城市	城市代碼	人數
Tainan	A2	3
Taipei	A1	3

```sql
SELECT city_detail.std_city_name AS "城市", city_detail.std_city_id AS "城市代碼", COUNT(*) AS "人數"
FROM student_detail, city_detail
WHERE (city_detail.std_city_id = student_detail.std_city_id)
GROUP BY city_detail.std_city_name
HAVING COUNT(*) > 2
```

2019.11.04 模擬考題

Q1: 請使用一 SQL 述敘， 選取相異的學生姓名，如下。<mark>(即, 顯示學生相異的姓名)</mark>

學生姓名
John Mike
Wom Try
Mike Fire
Dave Van
Mike Wu
Wuber Eat

```sql
SELECT DISTINCT(std_name) AS "姓名相異數"
FROM student_detail
```

Q2: 請使用一SQL 述敘，選取 dept_id 代碼為 IE 或是 ME，且成績及格的學生資料，如下。<mark>(即, 顯示資工系與機械系成績及格的學生相關資料)</mark>

姓名	學生城市代號	學生城市名稱	成績
John Mike	A1	Taipei	90
Dave Van	A3	Kaoshiung	77
Mike Wu	A1	Taipei	88
Wuber Eat	A3	Kaoshiung	99

```sql
SELECT std_name AS "姓名", student_detail.std_city_id AS "學生城市代號",
city_detail.std_city_name AS "學生城市名稱", std_grade AS "成績"
FROM student_detail, city_detail
WHERE (student_detail.dept_id = "IE" OR student_detail.dept_id = "ME") AND
(student_detail.std_city_id = city_detail.std_city_id) AND std_grade >= 60
```