

SQL CHEAT SHEET

查詢單一表格資料

SELECT c1, c2 FROM t;

查詢 c1, c2 直欄的資料

SELECT * FROM t;

查詢所有直欄、所有橫列的資料

SELECT c1 [AS] a1, c2 [AS] a2 FROM t;

將查詢結果直欄標題依別名顯示

SELECT c1, c2 FROM t

WHERE condition;

查詢符合條件之橫列的資料

SELECT DISTINCT c1 FROM t

WHERE condition;

查詢符合條件之不重複橫列的資料

SELECT c1, c2 FROM t

ORDER BY c1 [ASC] DESC;

查詢結果依直欄值升冪或降冪排列

SELECT TOP n (PERCENT) c1, c2 FROM t

ORDER BY c1;

將查詢結果回傳前 n (百分比) 列

SELECT c1, c2 FROM t

ORDER BY c1

OFFSET n1 ROWS FETCH NEXT n2 ROWS;

將查詢結果跳過 n1 列後回傳 n2 列

查詢群組資料

SELECT aggregate(c1)

FROM t

以全表格為一組使用彙總函數計算

SELECT c1, aggregate(c2)

FROM t

GROUP BY c1;

群組資料列並使用彙總函數

SELECT c1, aggregate(c2)

FROM t

GROUP BY c1

HAVING condition;

群組資料計算後篩選群組

SQL Aggregate Functions

COUNT(expr) 回傳表列元素之筆數

SUM(expr) 回傳表列元素之加總值

AVG(expr) 回傳表列元素之平均值

MAX(expr) 回傳表列元素之最大值

MIN(expr) 回傳表列元素之最小值

使用各種運算子

SELECT c1, c2 FROM t

WHERE c1 [NOT] LIKE pattern;

使用模糊比對查詢資料

SELECT c1, c2 FROM t

WHERE c1 [NOT] IN value_list;

查詢欄位值是否在指定陣列中

SELECT c1, c2 FROM t

WHERE c1 BETWEEN low AND high;

查詢欄位值是否在兩個值之間

SELECT c1, c2 FROM t

WHERE c1 IS [NOT] NULL;

查詢欄位值是否為空值

SELECT c1, c2 FROM t1

UNION [ALL]

SELECT c1, c2 FROM t2;

將兩個查詢之結果列合併(聯集)

SELECT c1, c2 FROM t1

INTERSECT (MINUS)

SELECT c1, c2 FROM t2;

求將兩個查詢之結果列的交集(差集)

SQL CHEAT SHEET

查詢多表格資料

SELECT c1, c2
FROM t1
INNER JOIN t2 **ON** condition;
執行內部連結t1, t2

SELECT a.c1, b.c2
FROM t1 [AS] a
INNER JOIN t2 [AS] b **ON** condition;
使用表格別名執行內部連結

SELECT c1, c2
FROM t1
LEFT(RIGHT) JOIN t2 **ON** condition;
執行左(右)外部連結t1, t2

SELECT c1, c2
FROM t1
FULL OUTER JOIN t2 **ON** condition;
執行全外部連結t1, t2

SELECT c1, c2
FROM t1 **CROSS JOIN** t2;
執行交叉連結t1, t2

SELECT a.c1, b.c2
FROM t1 a
INNER JOIN t1 b **ON** condition;
執行自我連結t1

使用子查詢

SELECT c1, c2 **FROM** t1
WHERE c1 = (**SELECT** - - -);
子查詢回傳單一欄位單一值

SELECT c1, c2 **FROM** t1
WHERE c1 **IN** (**SELECT** - - -);
子查詢回傳單一欄位多個值

SELECT c1, c2 **FROM** t1
WHERE c1 > **ANY(ALL)** (**SELECT** - - -);
子查詢回傳單一欄位多個值

SELECT c1, c2 **FROM** t1
WHERE EXISTS (**SELECT** - - -);
子查詢回傳多個欄位

SELECT c1, **aggregate**(c2)
FROM t
GROUP BY c1
HAVING c1 = (**SELECT** - - -);
以子查詢之回傳值篩選群組

SELECT c1, c2 **FROM** t1
JOIN (**SELECT** - - -) t2 **ON** condition;
以子查詢進行連結

更動表格資料

INSERT INTO t(column_list)
VALUES (value_list);
新增單筆資料

INSERT INTO t(column_list)
VALUES (value_list),
 (value_list), ...;
新增多單筆資料

INSERT INTO t(column_list)
SELECT column_list
FROM t2;
自另一表格新增資料

UPDATE t
SET c1 = new_value,
 c2 = new_value
WHERE condition;
修改符合條件資料列之欄位資料

DELETE FROM t
WHERE condition;
刪除符合條件之資料列

DELETE FROM t;
刪除表格中所有資料列

SQL CHEAT SHEET

管理表格

```
CREATE TABLE t (  
  id INT PRIMARY KEY,  
  name VARCHAR NOT NULL,  
  price INT DEFAULT 0  
);
```

新增一個包含三個欄位的表格

```
SELECT c1,c2 INTO t2  
FROM t1
```

```
WHERE condition;
```

用一個既有之表格創建新表格

```
DROP TABLE t;
```

刪除表格

```
ALTER TABLE t ADD column;
```

在表格中加入欄位

```
ALTER TABLE t DROP COLUMN c1;
```

移除表格中之欄位

```
ALTER TABLE t ALTER COLUMN column;
```

修改欄位定義

```
EXEC sp_rename 't1', 't2' ;
```

將t1表格重新命名為t2

```
TRUNCATE TABLE t;
```

刪除表格中所有資料

管理限制條件

```
CREATE TABLE t(  
  c1 INT, c2 INT, c3 VARCHAR,  
  PRIMARY KEY (c1,c2)  
);  
CREATE TABLE t1(  
  c1 INT PRIMARY KEY,  
  c2 INT,  
  FOREIGN KEY (c2) REFERENCES t2(c2)  
);  
CREATE TABLE t(  
  c1 INT, c2 INT,  
  UNIQUE(c1,c2)  
);  
CREATE TABLE t(  
  c1 INT, c2 INT,  
  CHECK(c1> 0 AND c1 >= c2)  
);  
CREATE TABLE t(  
  c1 INT PRIMARY KEY,  
  c2 VARCHAR NOT NULL  
);
```

```
ALTER TABLE t ADD constraint;
```

新增限制條件

```
ALTER TABLE t DROP constraint;
```

刪除限制條件

管理檢視及索引

```
CREATE VIEW v(c1,c2) AS  
SELECT c1, c2  
FROM t;
```

以基底表格t1新增簡單檢視

```
CREATE VIEW v(c1,c2) AS  
SELECT c1, c2 FROM t  
WITH CHECK OPTION;
```

新增檢視並設定檢查選項

```
CREATE VIEW v(c1,c2) AS  
SELECT t1.c1, t2.c2 FROM t1  
JOIN t2 ON condition;
```

以基底表格t1,t2 新增複雜檢視

```
DROP VIEW view_name;
```

刪除檢視

```
CREATE INDEX idx_name  
ON t(c1,c2);
```

在表格t中以c1,c2欄位建立索引

```
CREATE UNIQUE INDEX idx_name  
ON t(c1,c2);
```

在表格t中以c1,c2欄位建立唯一索引

```
DROP INDEX idx_name ON t;
```

刪除索引