

資料庫入門

SQL資料變更

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課程大綱

1) 資料變更

- 取得表格資訊
- 新增資料
- 修改資料
- 刪除資料

取得表格資訊

■ 取得表格資訊

- 資料變更維護時，需清楚知道表格的詳細資訊
 - 表格欄位名稱、型態、順序和預設值
 - 表格的主索引鍵
- 影響資料維護敘述的寫法
 - 違反表格的設計架構，會產生錯誤的資料

[DESCRIBE | DESC] 表格名稱

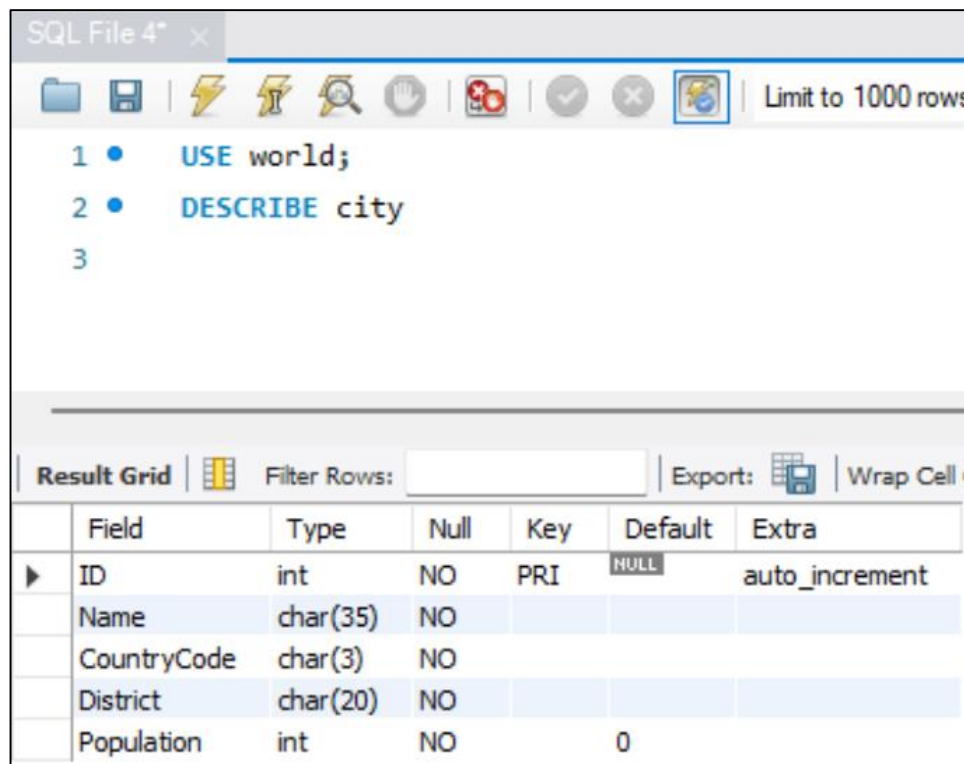
- 查詢建立表格的敘述

SHOW CREATE TABLE 表格名稱

範例

■ 檢視city表格資訊

- Field：欄位名稱
- Type：資料型態
 - 型態(長度)
- Null：是否可為NULL
- Key：PRI主索引鍵
- Default：預設值
- Extra：其他設定
 - auto_increment自動遞增



The screenshot shows a SQL client window titled "SQL File 4* x". The query window contains the following SQL commands:

```
1 • USE world;
2 • DESCRIBE city
3
```

Below the query window is a "Result Grid" showing the structure of the 'city' table. The grid has columns: Field, Type, Null, Key, Default, and Extra. The data is as follows:

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	auto_increment
Name	char(35)	NO			
CountryCode	char(3)	NO			
District	char(20)	NO			
Population	int	NO		0	

範例

■ 檢視cmdev.emp表格資訊及建立表格的敘述

SQL File 4* x

1 • USE cmdev;
2 • DESC emp;
3 • SHOW CREATE TABLE emp;

Result Grid | Filter Rows: | Export: |

	Field	Type	Null	Key	Default	Extra
►	empno	int	NO	PRI	NULL	
	ename	varchar(16)	NO		NULL	
	job	varchar(16)	YES		NULL	
	manager	int	YES		NULL	
	hiredate	date	YES		NULL	
	salary	float(7,2)	YES		NULL	
	comm	float(7,2)	YES		NULL	
	deptno	int	YES		NULL	

Result 4 x Result 5

Result Grid | Filter Rows: | Export: | Wrap Cell Center

Table	Create Table
emp	CREATE TABLE `emp` (`empno` int NOT NULL, `ename` varchar(16) NOT NULL, `job` varchar(16) DEFAULT NULL, `manager` int DEFAULT NULL, `hiredate` date DEFAULT NULL, `salary` float(7,2) DEFAULT NULL, `comm` float(7,2) DEFAULT NULL, `deptno` int DEFAULT NULL, PRIMARY KEY (`empno`)) ENGINE=InnoDB DEFAULT CHARSET=big5

Result 4 Result 5 x

新增資料

■ 新增一筆資料

- 將一筆資料新增到資料表中
- 語法

INSERT INTO 表格名稱 [(欄位名稱,...)]

VALUES (值 | 運算 | DEFAULT,...)

INSERT INTO 表格名稱

SET 欄位名稱=值|運算|DEFAULT [,...]

新增資料

■ 新增資料注意事項

- 省略欄位名稱時，依表格欄位順序填入資料
 - 所有欄位均需給值，欄位數量不足時發生錯誤
 - 使用**Default** 欄位填入預設值
- 指定欄位名稱時，依指定欄位個數與順序填入資料
 - 未指定的欄位會設定為預設值
 - 仍需遵守表格欄位是否允許**NULL**值設定

新增資料

■ 新增多筆資料

- 將多筆資料新增到資料表中
- 語法

INSERT INTO 表格名稱 [(欄位名稱,...)]

VALUES (值 | 運算 | DEFAULT,...) [(值 | 運算 |
DEFAULT,...),...]

範例

■ cmdev.dept 表格中加入 Shipping 部門

- 部門代號: 90
- 使用預設位置

```
SQL File 4*  dept
1 • INSERT INTO cmdev.dept
2   VALUES (90, 'SHIPPING', DEFAULT)
```

```
Query 1  dept
1  INSERT INTO dept (deptno, dname)
2  VALUES (90, 'SHIPPING');
3
```

SQL File 4* dept

```
1 • SELECT * FROM cmdev.dept;
```

Result Grid

	deptno	dname	location
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
	50	IT	NEW YORK
	90	SHIPPING	NULL
*	NULL	NULL	NULL

dept 2 x

範例

■ cmdev.dept 表格中加入Purchasing部門

- 部門代號: 80
- 位於 New York

```
SQL File 4* x dept
1 • INSERT INTO cmdev.dept (dname, deptno, location)
2   VALUES ('Purchasing', 80, 'NEW YORK')
```

SQL File 4* dept x

1 • SELECT * FROM cmdev.dept;

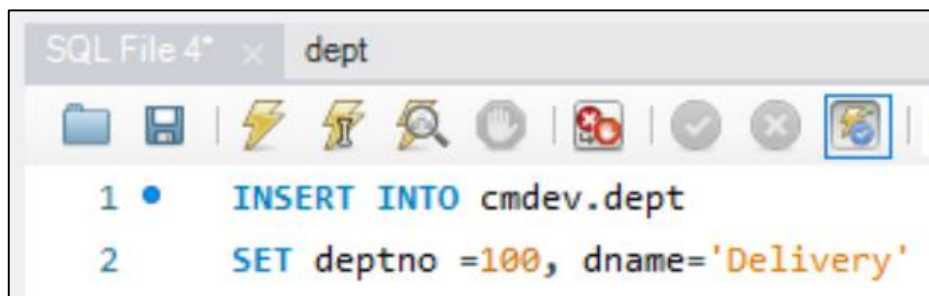
Result Grid | Filter Rows:

	deptno	dname	location
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
	50	IT	NEW YORK
	80	Purchasing	NEW YORK
	90	SHIPPING	NULL
*	NULL	NULL	NULL

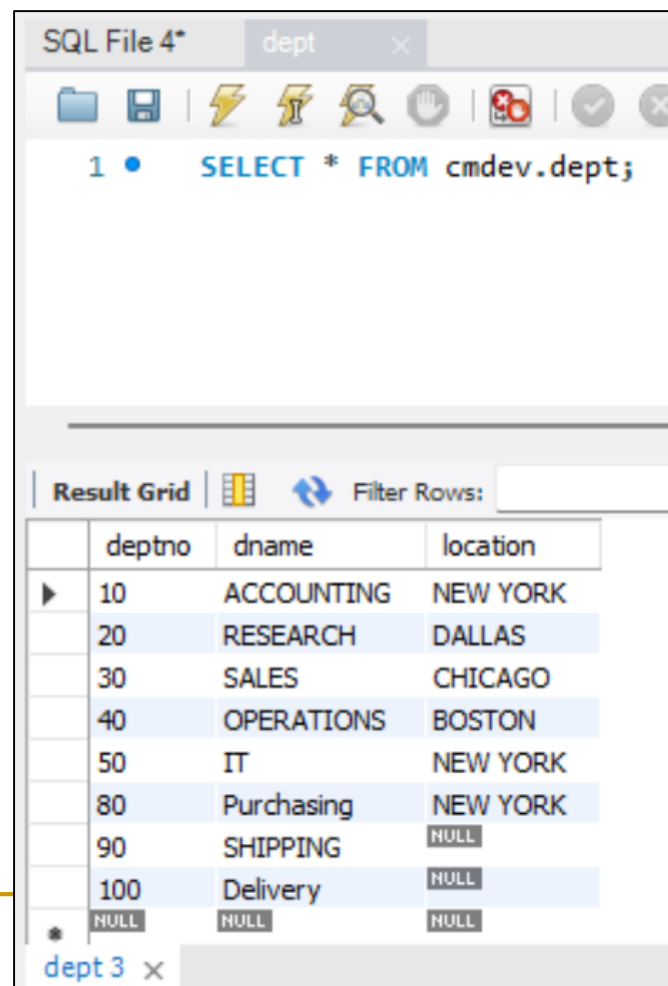
範例

■ cmdev.dept 表格中加入Delivery部門

- 部門代號: 100
- 使用預設位置
- 使用Set 語法



```
SQL File 4*  dept
1 • INSERT INTO cmdev.dept
2   SET deptno =100, dname='Delivery'
```



```
SQL File 4*  dept
1 • SELECT * FROM cmdev.dept;
```

Result Grid

	deptno	dname	location
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
	50	IT	NEW YORK
	80	Purchasing	NEW YORK
	90	SHIPPING	NULL
	100	Delivery	NULL
*	NULL	NULL	NULL

dept 3 x

■ 新增多筆員工資料至cmdev.emp表格

[illegible]

主鍵重複

- 主鍵(Primary Key)重複
 - 表格通常會設定某一個欄位為主鍵
 - 欄位值不可以重複
 - 欄位不可以為 NULL值
 - 在新增紀錄的時候就不可以違反主鍵的規定，否則會產生錯誤
 - 忽略違反主鍵的錯誤訊息
 - 不會新增資料

INSERT IGNORE INTO

違反重複索引時取代資料

- 新增資料時，違反重複索引時取代資料
 - 主鍵是索引的一種
 - 如未違反索引規定效果與INSERT相同
 - 語法

REPLACE INTO 表格名稱 [(欄位名稱,...)]

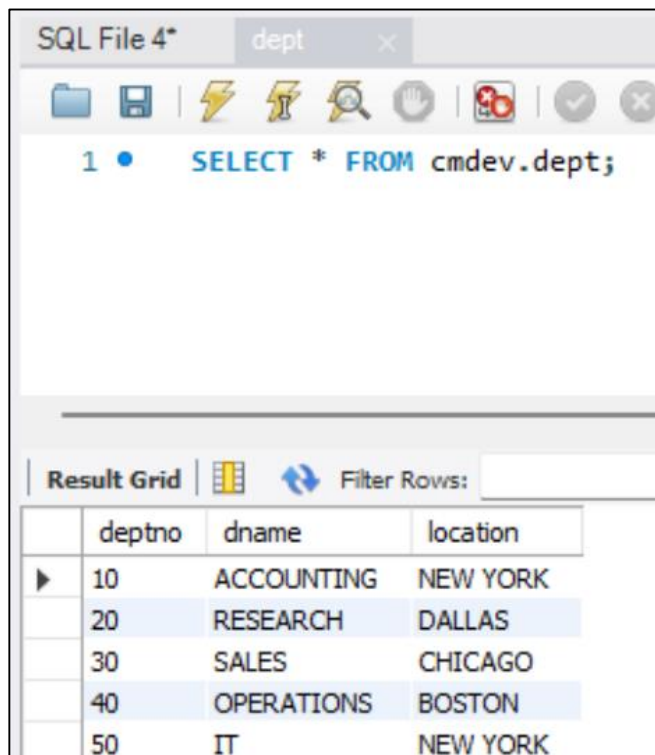
VALUES (值 | 運算 | DEFAULT,...)

REPLACE INTO 表格名稱

SET 欄位名稱=值|運算|DEFAULT [...]

範例

- cmdev.dept 表格中加入MIS部門
 - 使用重複的部門代號: 50

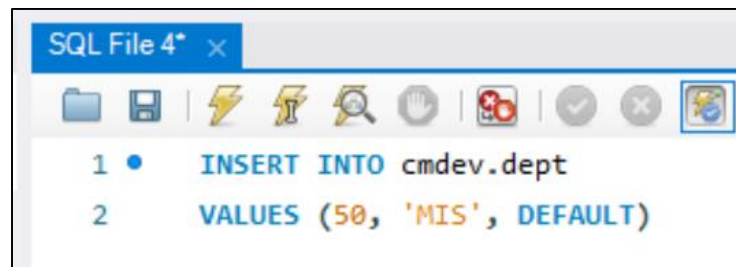


SQL File 4* dept

1 • SELECT * FROM cmdev.dept;

Result Grid

	deptno	dname	location
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
	50	IT	NEW YORK



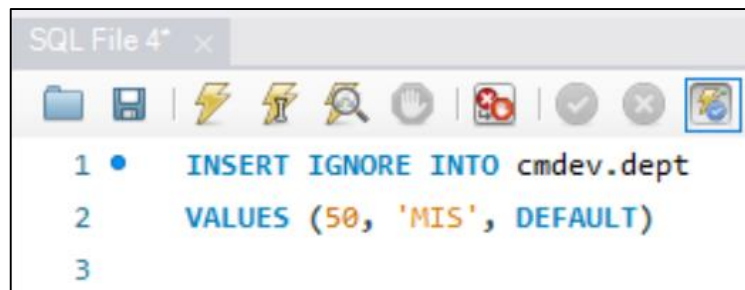
SQL File 4* x

1 • INSERT INTO cmdev.dept

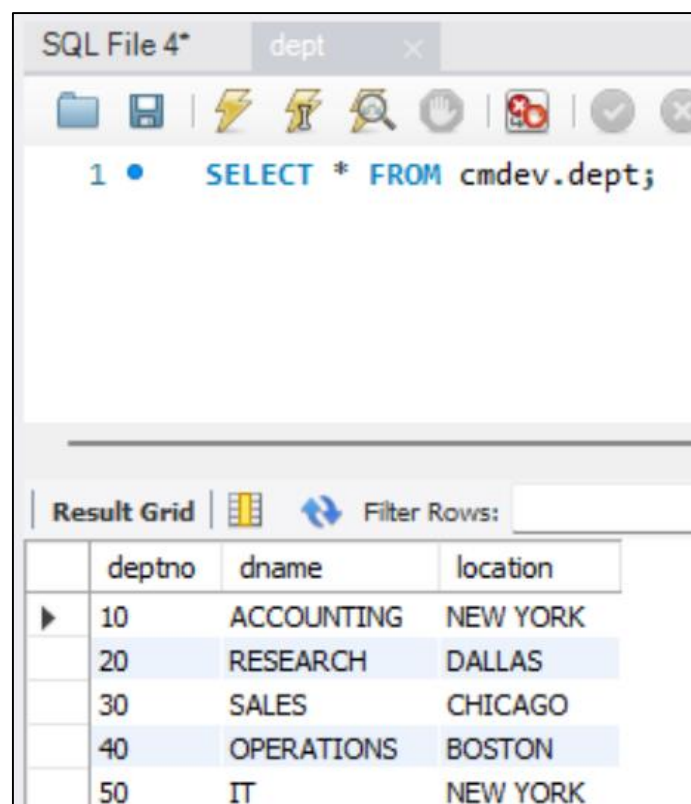
2 VALUES (50, 'MIS', DEFAULT)

範例

■ 忽略違反主鍵的錯誤訊息



```
SQL File 4* x
1 • INSERT IGNORE INTO cmdev.dept
2   VALUES (50, 'MIS', DEFAULT)
3
```



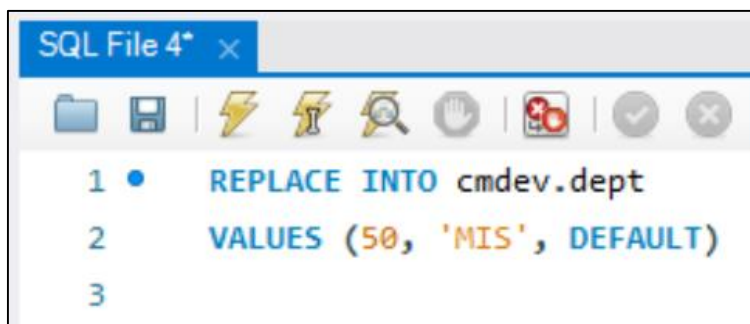
```
SQL File 4* dept x
1 • SELECT * FROM cmdev.dept;
```

Result Grid

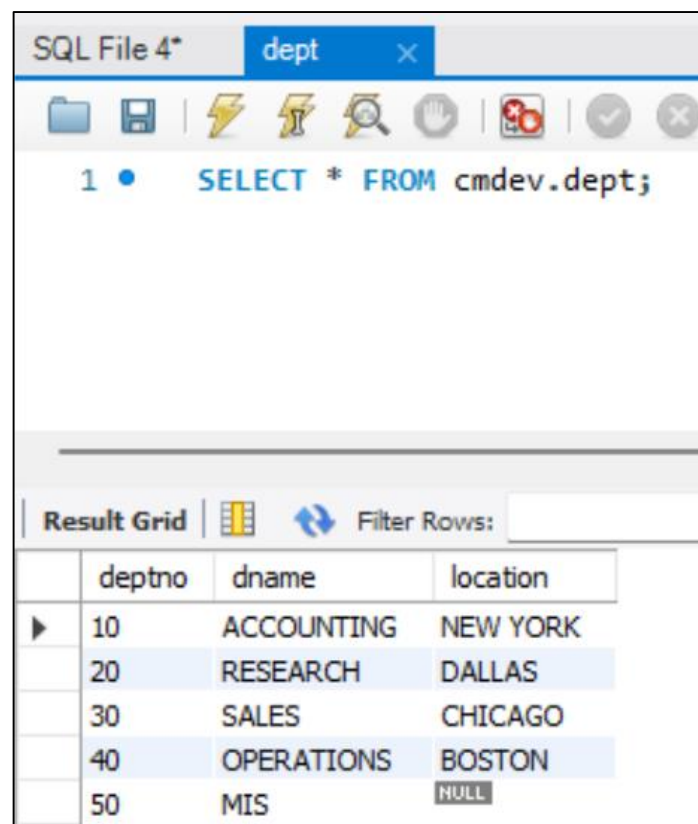
	deptno	dname	location
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
	50	IT	NEW YORK

範例

- 新增主鍵重複時取代資料



```
SQL File 4* x
1 • REPLACE INTO cmdev.dept
2   VALUES (50, 'MIS', DEFAULT)
3
```



```
SQL File 4* dept x
1 • SELECT * FROM cmdev.dept;
```

Result Grid | Filter Rows:

	deptno	dname	location
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
	50	MIS	NULL

違反重複索引時執行修改

- 新增資料時，違反重複索引時執行修改

- 資料計數

- 資料不存在時新增一筆，計數為 1
 - 資料已存在時，計數遞增

- 語法

INSERT INTO

ON DUPLICATE KEY UPDATE 欄位=運算式[,...]

範例

```
SQL File 4* x
1 • SELECT *
2   FROM cmdev.travel
3   WHERE empno=7900 AND
4         location='BOSTON'
```

Result Grid | Filter Rows:

	empno	location	counter
*	NULL	NULL	NULL

Result Grid | Filter Rows:

	empno	location	counter
▶	7900	Boston	1
*	NULL	NULL	NULL

```
SQL File 4* x
1 • INSERT INTO cmdev.travel
2   VALUES (7900, 'Boston', 1)
```

```
SQL File 4* x
1 • UPDATE cmdev.travel
2   SET counter=counter+1
3   WHERE empno=7900 AND
4         location='Boston'
```

範例

- 使用ON DUPLICATE KEY 改寫

```
SQL File 4* x
[Icons] Don't Limit
1 • INSERT INTO cmdev.travel
2   VALUES (7900, 'Boston', 1)
3   ON DUPLICATE KEY UPDATE counter=counter+1
4
```

Result Grid | [Icon] Filter Rows:

	empno	location	counter
*	NULL	NULL	NULL

Result Grid | [Icon] Filter Rows:

▶	7900	Boston	1
*	NULL	NULL	NULL

Result Grid | [Icon] Filter Rows:

▶	7900	Boston	2
*	NULL	NULL	NULL

修改資料

■ 修改資料

- ❑ 修改已經儲存在表格中的記錄
- ❑ 語法

UPDATE [IGNORE] 表格名稱

SET 欄位名稱=值|運算|DEFAULT [...]

[WHERE 條件]

[ORDER BY 排序]

[LIMIT 數字]

範例

- cmdev.emp表格中7369員工加薪100元

emp

```
1 • SELECT empno, ename, salary FROM cmdev.emp;
```

Result Grid

	empno	ename	salary
▶	7369	SMITH	800.00
	7499	ALLEN	1600.00
	7521	WARD	1250.00
	7566	JONES	2975.00
	7654	MARTIN	1250.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1100.00
	7900	JAMES	950.00
	7902	FORD	3000.00
	7934	MILLER	1300.00
*	NULL	NULL	NULL

Query 1

```
1 • UPDATE cmdev.emp
2   SET salary = salary + 100
3   WHERE empno=7369;
4
```

	empno	ename	salary
▶	7369	SMITH	900.00
	7499	ALLEN	1600.00
	7521	WARD	1250.00
	7566	JONES	2975.00
	7654	MARTIN	1250.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1100.00
	7900	JAMES	950.00
	7902	FORD	3000.00
	7934	MILLER	1300.00
*	NULL	NULL	NULL

範例

- cmdev.emp表格中薪水小於1500元的員工加薪100元

emp

```
1 • SELECT empno, ename, salary FROM cmdev.emp;
```

Result Grid

	empno	ename	salary
▶	7369	SMITH	800.00
	7499	ALLEN	1600.00
	7521	WARD	1250.00
	7566	JONES	2975.00
	7654	MARTIN	1250.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1100.00
	7900	JAMES	950.00
	7902	FORD	3000.00
	7934	MILLER	1300.00
*	NULL	NULL	NULL

SQL File 4*

```
1 • UPDATE cmdev.emp
2   SET salary = salary + 100
3   WHERE salary < 1500
```

	empno	ename	salary
▶	7369	SMITH	900.00
	7499	ALLEN	1600.00
	7521	WARD	1350.00
	7566	JONES	2975.00
	7654	MARTIN	1350.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1200.00
	7900	JAMES	1050.00
	7902	FORD	3000.00
	7934	MILLER	1400.00
*	NULL	NULL	NULL

範例

- cmdev.emp表格中所有員工加薪100元

```
SQL File 4* x
[Icons]
1 • UPDATE cmdev.emp
2   SET salary = salary + 100
3
```

	empno	ename	salary
▶	7369	SMITH	900.00
	7499	ALLEN	1600.00
	7521	WARD	1350.00
	7566	JONES	2975.00
	7654	MARTIN	1350.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1200.00
	7900	JAMES	1050.00
	7902	FORD	3000.00
	7934	MILLER	1400.00
*	NULL	NULL	NULL

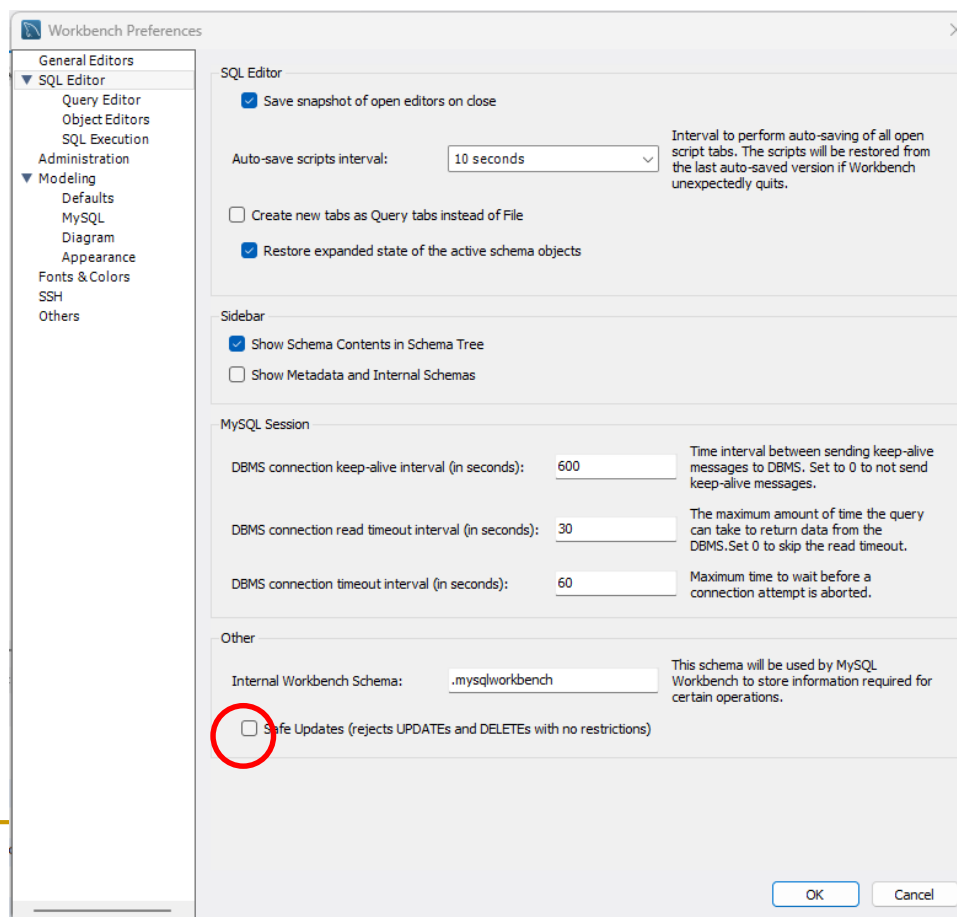
	empno	ename	salary
▶	7369	SMITH	1000.00
	7499	ALLEN	1700.00
	7521	WARD	1450.00
	7566	JONES	3075.00
	7654	MARTIN	1450.00
	7698	BLAKE	2950.00
	7782	CLARK	2550.00
	7788	SCOTT	3100.00
	7839	KING	5100.00
	7844	TURNER	1600.00
	7876	ADAMS	1300.00
	7900	JAMES	1150.00
	7902	FORD	3100.00
	7934	MILLER	1500.00
*	NULL	NULL	NULL

取消安全模式

■ MySQL預設安全模式：修改資料必需使用主鍵

48 16:47:49 UPDATE cmdev.emp SET salary = salary + 100 Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE that uses a KEY column. To disable safe mode, toggle the option in Preferences -> SQL Editor and reconnect.

■ 取消安全模式



修改資料注意事項

■ 修改資料注意事項

□ IGNORE 避免出現錯誤訊息

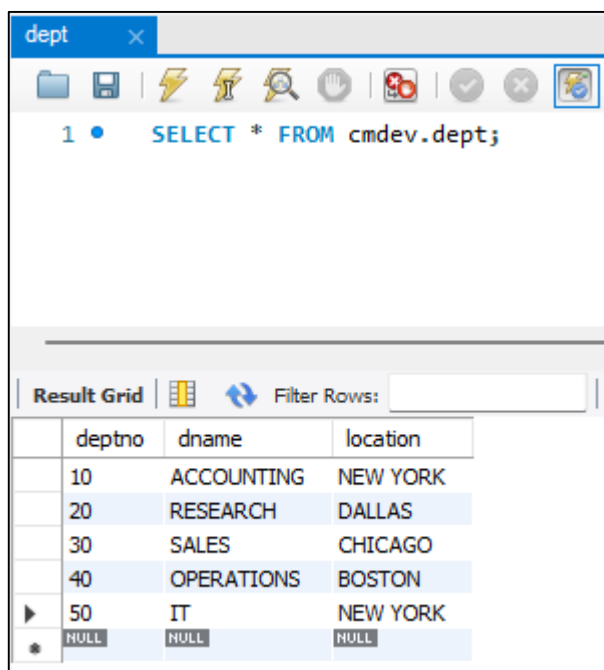
- 主鍵發生錯誤，不會修改資料
- 非主鍵欄位發生錯誤，該欄位填入預設值，沒問題的欄位會被修改

□ ORDER BY 排序 LIMIT 數字

- 先執行排序
- 在限定修改資料的數量

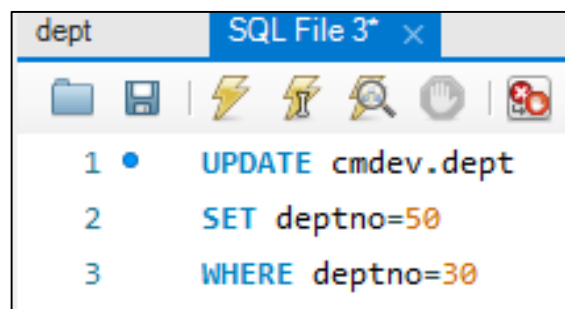
範例

- cmdev.dept表格中將部門編號50的部門編號改為30
 - 觀察錯誤訊息



The screenshot shows a SQL IDE window titled 'dept'. The query editor contains the statement: `1 • SELECT * FROM cmdev.dept;`. Below the editor, the 'Result Grid' is displayed with the following data:

	deptno	dname	location
	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON
▶	50	IT	NEW YORK
*	NULL	NULL	NULL



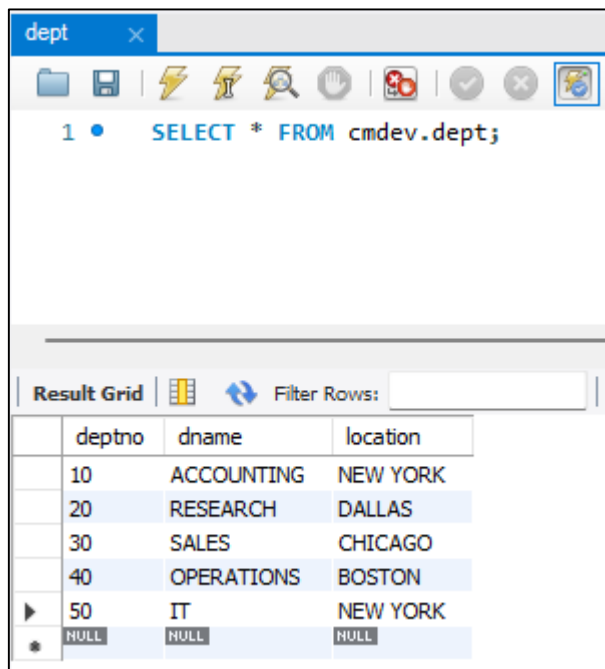
The screenshot shows a SQL IDE window titled 'dept' with a tab labeled 'SQL File 3*'. The query editor contains the following statements:

```
1 • UPDATE cmdev.dept
2   SET deptno=50
3   WHERE deptno=30
```



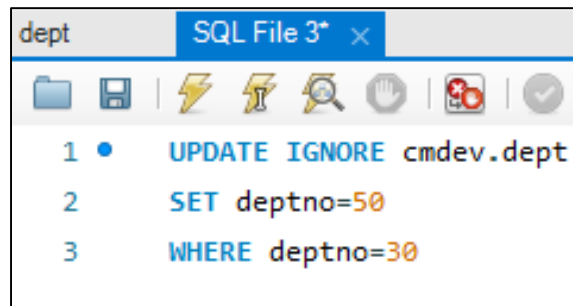
範例

- cmdev.dept表格中將部門編號50的部門編號改為30
 - 忽略錯誤訊息
 - 檢視是否更新成功



The screenshot shows a SQL client window titled 'dept'. The query editor contains the statement: `1 • SELECT * FROM cmdev.dept;`. Below the query, the 'Result Grid' tab is active, displaying a table with the following data:

deptno	dname	location
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON
50	IT	NEW YORK
NULL	NULL	NULL



The screenshot shows a SQL client window titled 'dept' with a tab labeled 'SQL File 3*'. The query editor contains the following three-line statement:

```
1 • UPDATE IGNORE cmdev.dept
2   SET deptno=50
3   WHERE deptno=30
```

範例

■ cmdev.emp表格中修改員工資料

- ❑ 薪水改成文字字串
- ❑ 檢視錯誤訊息

```
SQL File 3* x emp
1 • UPDATE cmdev.emp
2   SET salary='Hello', comm=1000
3   WHERE empno=7369
```

SQL File 3* emp x

```
1 • SELECT empno, ename, salary, comm
2   FROM cmdev.emp;
```

Result Grid | Filter Rows: | Edit

	empno	ename	salary	comm
▶	7369	SMITH	1000.00	NULL
	7499	ALLEN	1700.00	300.00
	7521	WARD	1450.00	500.00
	7566	JONES	3075.00	NULL
	7654	MARTIN	1450.00	1400.00
	7698	BLAKE	2950.00	NULL
	7782	CLARK	2550.00	NULL
	7788	SCOTT	3100.00	NULL
	7839	KING	5100.00	NULL
	7844	TURNER	1600.00	0.00
	7876	ADAMS	1300.00	NULL
	7900	JAMES	1150.00	NULL
	7902	FORD	3100.00	NULL
	7934	MILLER	1500.00	NULL
*	NULL	NULL	NULL	NULL

範例

- 忽略不合理值錯誤訊息，檢視修改結果

SQL File 3* emp

```
1 • SELECT empno, ename, salary, comm
2   FROM cmdev.emp;
```

Result Grid

	empno	ename	salary	comm
▶	7369	SMITH	1000.00	NULL
	7499	ALLEN	1700.00	300.00
	7521	WARD	1450.00	500.00
	7566	JONES	3075.00	NULL
	7654	MARTIN	1450.00	1400.00
	7698	BLAKE	2950.00	NULL
	7782	CLARK	2550.00	NULL
	7788	SCOTT	3100.00	NULL
	7839	KING	5100.00	NULL
	7844	TURNER	1600.00	0.00
	7876	ADAMS	1300.00	NULL
	7900	JAMES	1150.00	NULL
	7902	FORD	3100.00	NULL
	7934	MILLER	1500.00	NULL
*	NULL	NULL	NULL	NULL

SQL File 3* emp

```
1 • UPDATE IGNORE cmdev.emp
2   SET salary='Hello', comm=1000
3   WHERE empno=7369
```

	empno	ename	salary	comm
▶	7369	SMITH	0.00	1000.00
	7499	ALLEN	1700.00	300.00
	7521	WARD	1450.00	500.00
	7566	JONES	3075.00	NULL
	7654	MARTIN	1450.00	1400.00
	7698	BLAKE	2950.00	NULL
	7782	CLARK	2550.00	NULL
	7788	SCOTT	3100.00	NULL
	7839	KING	5100.00	NULL
	7844	TURNER	1600.00	0.00
	7876	ADAMS	1300.00	NULL
	7900	JAMES	1150.00	NULL
	7902	FORD	3100.00	NULL
	7934	MILLER	1500.00	NULL
*	NULL	NULL	NULL	NULL

範例

- cmdev.emp表格中前三個員工加薪100元

```
SQL File 3* x emp
1 • UPDATE cmdev.emp
2   SET salary=salary+100
3   LIMIT 3
4
```

	empno	ename	salary
▶	7369	SMITH	1000.00
	7499	ALLEN	1700.00
	7521	WARD	1450.00
	7566	JONES	3075.00
	7654	MARTIN	1450.00
	7698	BLAKE	2950.00
	7782	CLARK	2550.00
	7788	SCOTT	3100.00
	7839	KING	5100.00
	7844	TURNER	1600.00
	7876	ADAMS	1300.00
	7900	JAMES	1150.00
	7902	FORD	3100.00
	7934	MILLER	1500.00
*	NULL	NULL	NULL

	empno	ename	salary
▶	7369	SMITH	1100.00
	7499	ALLEN	1800.00
	7521	WARD	1550.00
	7566	JONES	3075.00
	7654	MARTIN	1450.00
	7698	BLAKE	2950.00
	7782	CLARK	2550.00
	7788	SCOTT	3100.00
	7839	KING	5100.00
	7844	TURNER	1600.00
	7876	ADAMS	1300.00
	7900	JAMES	1150.00
	7902	FORD	3100.00
	7934	MILLER	1500.00
*	NULL	NULL	NULL

範例

- cmdev.emp表格中最低薪三個員工加薪100元
- cmdev.emp表格中最高薪三個員工加薪100元

```
SQL File 3* x emp
1 • UPDATE cmdev.emp
2   SET salary=salary+100
3   ORDER BY salary
4   LIMIT 3
5
```

```
SQL File 3* x emp
1 • UPDATE cmdev.emp
2   SET salary=salary+100
3   ORDER BY salary DESC
4   LIMIT 3
5
```

	empno	ename	salary
▶	7369	SMITH	1100.00
	7900	JAMES	1150.00
	7876	ADAMS	1300.00
	7654	MARTIN	1450.00
	7934	MILLER	1500.00
	7521	WARD	1550.00
	7844	TURNER	1600.00
	7499	ALLEN	1800.00
	7782	CLARK	2550.00
	7698	BLAKE	2950.00
	7566	JONES	3075.00
	7788	SCOTT	3100.00
	7902	FORD	3100.00
	7839	KING	5100.00
*	NULL	NULL	NULL

	empno	ename	salary
▶	7369	SMITH	1200.00
	7900	JAMES	1250.00
	7876	ADAMS	1400.00
	7654	MARTIN	1450.00
	7934	MILLER	1500.00
	7521	WARD	1550.00
	7844	TURNER	1600.00
	7499	ALLEN	1800.00
	7782	CLARK	2550.00
	7698	BLAKE	2950.00
	7566	JONES	3075.00
	7788	SCOTT	3100.00
	7902	FORD	3100.00
	7839	KING	5100.00
*	NULL	NULL	NULL

	empno	ename	salary
▶	7369	SMITH	1200.00
	7900	JAMES	1250.00
	7876	ADAMS	1400.00
	7654	MARTIN	1450.00
	7934	MILLER	1500.00
	7521	WARD	1550.00
	7844	TURNER	1600.00
	7499	ALLEN	1800.00
	7782	CLARK	2550.00
	7698	BLAKE	2950.00
	7566	JONES	3075.00
	7788	SCOTT	3200.00
	7902	FORD	3200.00
	7839	KING	5200.00
*	NULL	NULL	NULL

刪除資料

■ 刪除資料

- ❑ 刪除表格中的記錄
- ❑ 語法

DELETE [IGNORE] FROM 表格名稱

[WHERE 條件]

[ORDER BY 排序]

[LIMIT 數字]

刪除所有資料

- 刪除所有資料

- 語法

TRUNCATE [TABLE] 表格名稱

- 效能比**DELETE** 好

範例

- 刪除薪水小於**1500**元的員工
- 刪除所有員工資料

	empno	ename	salary
▶	7369	SMITH	1200.00
	7499	ALLEN	1800.00
	7521	WARD	1550.00
	7566	JONES	3075.00
	7654	MARTIN	1450.00
	7698	BLAKE	2950.00
	7782	CLARK	2550.00
	7788	SCOTT	3200.00
	7839	KING	5200.00
	7844	TURNER	1600.00
	7876	ADAMS	1400.00
	7900	JAMES	1250.00
	7902	FORD	3200.00
	7934	MILLER	1500.00
*	NULL	NULL	NULL

```
emp  SQL File 3* x
1 • DELETE FROM cmdev.emp
2   WHERE salary < 1500
3
```

	empno	ename	salary
▶	7499	ALLEN	1800.00
	7521	WARD	1550.00
	7566	JONES	3075.00
	7698	BLAKE	2950.00
	7782	CLARK	2550.00
	7788	SCOTT	3200.00
	7839	KING	5200.00
	7844	TURNER	1600.00
	7902	FORD	3200.00
	7934	MILLER	1500.00
*	NULL	NULL	NULL

```
emp  SQL File 3* x
1 • DELETE FROM cmdev.emp
2
```

	empno	ename	salary
*	NULL	NULL	NULL

範例

- 刪除前三筆的員工

```
emp  SQL File 3* x
1  •  DELETE FROM cmdev.emp
2  LIMIT 3
3
```

	empno	ename	salary
▶	7369	SMITH	800.00
	7499	ALLEN	1600.00
	7521	WARD	1250.00
	7566	JONES	2975.00
	7654	MARTIN	1250.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1100.00
	7900	JAMES	950.00
	7902	FORD	3000.00
	7934	MILLER	1300.00
*	NULL	NULL	NULL

	empno	ename	salary
▶	7566	JONES	2975.00
	7654	MARTIN	1250.00
	7698	BLAKE	2850.00
	7782	CLARK	2450.00
	7788	SCOTT	3000.00
	7839	KING	5000.00
	7844	TURNER	1500.00
	7876	ADAMS	1100.00
	7900	JAMES	950.00
	7902	FORD	3000.00
	7934	MILLER	1300.00
*	NULL	NULL	NULL

範例

- 刪除薪水最低的三個員工資料
- 刪除薪水最高的三個員工資料

	empno	ename	salary
▶	7900	JAMES	950.00
	7876	ADAMS	1100.00
	7654	MARTIN	1250.00
	7934	MILLER	1300.00
	7844	TURNER	1500.00
	7782	CLARK	2450.00
	7698	BLAKE	2850.00
	7566	JONES	2975.00
	7788	SCOTT	3000.00
	7902	FORD	3000.00
	7839	KING	5000.00
*	NULL	NULL	NULL

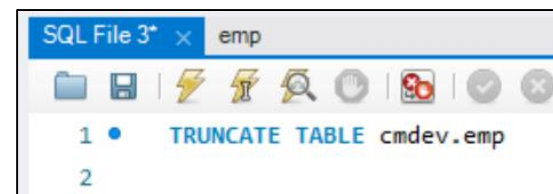
```
emp  SQL File 3* x
1 • DELETE FROM cmdev.emp
2   ORDER BY salary
3   LIMIT 3
4
```

	empno	ename	salary
▶	7934	MILLER	1300.00
	7844	TURNER	1500.00
	7782	CLARK	2450.00
	7698	BLAKE	2850.00
	7566	JONES	2975.00
	7788	SCOTT	3000.00
	7902	FORD	3000.00
	7839	KING	5000.00
*	NULL	NULL	NULL

```
emp  SQL File 3* x
1 • DELETE FROM cmdev.emp
2   ORDER BY salary DESC
3   LIMIT 3
4
```

	empno	ename	salary
▶	7934	MILLER	1300.00
	7844	TURNER	1500.00
	7782	CLARK	2450.00
	7698	BLAKE	2850.00
	7566	JONES	2975.00
*	NULL	NULL	NULL

- ## ■ 使用TRUNCATE TABLE 刪除表格所有內容

[illegible][illegible]