**Declaration of Array Types**

CREATE TABLE sal\_emp (

name text,

pay\_by\_quarter integer[],

schedule text[][]

);

pay\_by\_quarter integer ARRAY[4],

pay\_by\_quarter integer ARRAY,

INSERT INTO sal\_emp

VALUES ('Bill',

'{10000, 10000, 10000, 10000}',

'{{"meeting", "lunch"}, {"training", "presentation"}}');

INSERT INTO sal\_emp

VALUES ('Carol',

'{20000, 25000, 25000, 25000}',

'{{"breakfast", "consulting"}, {"meeting", "lunch"}}');

The result of the previous two inserts looks like this:

SELECT \* FROM sal\_emp;

name | pay\_by\_quarter | schedule

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Bill | {10000,10000,10000,10000} |{{meeting,lunch},{training,presentation}}

Carol | {20000,25000,25000,25000} | {{breakfast,consulting},{meeting,lunch}}

(2 rows)

**The ARRAY constructor syntax can also be used:**

INSERT INTO sal\_emp

VALUES ('Bill',

ARRAY[10000, 10000, 10000, 10000],

ARRAY[['meeting', 'lunch'], ['training', 'presentation']]);

INSERT INTO sal\_emp

VALUES ('Carol',

ARRAY[20000, 25000, 25000, 25000],

ARRAY[['breakfast', 'consulting'], ['meeting', 'lunch']]);

### Accessing Arrays

SELECT name FROM sal\_emp WHERE pay\_by\_quarter[1] <> pay\_by\_quarter[2];

name

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Carol

(1 row)

SELECT pay\_by\_quarter[3] FROM sal\_emp;

pay\_by\_quarter

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10000

25000

(2 rows)

### Modifying Arrays

UPDATE sal\_emp SET pay\_by\_quarter = '{25000,25000,27000,27000}'

WHERE name = 'Carol';

UPDATE sal\_emp SET pay\_by\_quarter = ARRAY[25000,25000,27000,27000]

WHERE name = 'Carol';

An array can also be updated at a single element:

UPDATE sal\_emp SET pay\_by\_quarter[4] = 15000

WHERE name = 'Bill';