



IBM Information Management software

Maintaining Data



Unit Objectives



After completing this unit, you should be able to:

- Create a simple table to test DML statements
- Create a view
- Insert rows into a table
- Update data in a table
- Delete rows from a table
- Drop a table

TESTEMP Table

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-04	38250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00
000111	SMITH	C01	1998-06-25	25000.00	-

Create Table TESTEMP

```
CREATE TABLE TESTEMP
(EMPNO          CHAR(6)          NOT NULL,
LASTNAME       VARCHAR(15)     NOT NULL,
WORKDEPT      CHAR(3)          ,
HIREDATE       DATE            ,
SALARY         DECIMAL(9,2)    ,
BONUS         DECIMAL(9,2)    )
```

```
-- IN DB_NAME.TS_NAME
```

```
-- or
```

```
-- IN DATABASE DB_NAME
```

```
-- or
```

```
-- IN TS_NAME
```

Create View PERSINFO

```
CREATE VIEW PERSINFO AS
SELECT  EMPNO, LASTNAME,
        SALARY AS YEAR_SAL
FROM    TESTEMP
WHERE   WORKDEPT = 'C01'
```

```
SELECT *
FROM PERSINFO
```



EMPNO	LASTNAME	YEAR_SAL
000030	KWAN	38250.00
000111	SMITH	25000.00

Inserting Rows into the Table

```
INSERT INTO TESTEMP  
VALUES ('000111', 'SMITH', 'C01', '1998-06-25', 25000, NULL)
```

OR

```
INSERT INTO TESTEMP  
(EMPNO, LASTNAME, WORKDEPT, HIREDATE, SALARY)  
VALUES ('000111', 'SMITH', 'C01', '1998-06-25', 25000)
```



<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	25000.00	-

Insert Multiple Rows

```
INSERT INTO TESTEMP  
SELECT EMPNO, LASTNAME, WORKDEPT, HIREDATE, SALARY, BONUS  
FROM EMPLOYEE  
WHERE EMPNO <= '000050'
```

```
SELECT * FROM TESTEMP
```



<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	25000.00	-
000113	JONES	C01	2001-06-25	25000.00	-
000114	THOMPSON	C01	2001-06-25	25000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	38250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00

Update Columns (1 of 2)

Before:

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	25000.00	-
000113	JONES	C01	2001-06-25	25000.00	-
000114	THOMPSON	C01	2001-06-25	25000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	38250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00

```
UPDATE TESTEMP  
SET BONUS = 500,  
    SALARY = 26000  
WHERE EMPNO = '000111'
```



After:

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	26000.00	500.00
000113	JONES	C01	2001-06-25	25000.00	-
000114	THOMPSON	C01	2001-06-25	25000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	38250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00

Update Columns (2 of 2)

Before:

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	26000.00	500.00
000113	JONES	C01	2001-06-25	25000.00	-
000114	THOMPSON	C01	2001-06-25	25000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	38250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00

UPDATE TESTEMP
SET SALARY = SALARY + 1000
WHERE WORKDEPT = 'C01'



After:

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	27000.00	500.00
000113	JONES	C01	2001-06-25	26000.00	-
000114	THOMPSON	C01	2001-06-25	26000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	39250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00

Delete Rows

Before:

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000111	SMITH	C01	1998-06-25	27000.00	500.00
000113	JONES	C01	2001-06-25	26000.00	-
000114	THOMPSON	C01	2001-06-25	26000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	39250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00


DELETE FROM TESTEMP
WHERE EMPNO = '000111'



After:

<u>EMPNO</u>	<u>LASTNAME</u>	<u>WORKDEPT</u>	<u>HIREDATE</u>	<u>SALARY</u>	<u>BONUS</u>
000113	JONES	C01	2001-06-25	26000.00	-
000114	THOMPSON	C01	2001-06-25	26000.00	-
000010	HAAS	A00	1965-01-01	52750.00	1000.00
000020	THOMPSON	B01	1973-10-10	41250.00	800.00
000030	KWAN	C01	1975-04-05	39250.00	800.00
000050	GEYER	E01	1949-08-17	40175.00	800.00

Drop Table TESTEMP



Now test table TESTEMP
is no longer needed.

DROP TABLE TESTEMP



**VIEW PERSINFO is
automatically dropped**

Reminders



- You must be authorized to execute CREATE/DROP table statements
- You must be authorized to execute statements which change table content
- Dropping a table drops dependent objects
- Search condition in the WHERE clause qualifies rows to be updated or deleted
- Inserting a row into a view actually inserts the row into the table on which the view is based
- Updating a row of a view updates the row of the table on which the view is based
- Omitting the WHERE clause of an UPDATE or DELETE statement causes all rows of the table or view to be updated or deleted

Checkpoint



1. True or False? You must **explicitly** be authorized to INSERT data rows in your own table.
2. To delete all rows of a table and its description, you must execute
 - a. DROP TABLE table name
 - b. DELETE FROM table name and DROP TABLE table name
 - c. DELETE FROM table name

Checkpoint Solutions



1. False. The owner of a table has all privileges on the table.
2. a, b

Unit Summary



Having completed this unit, you should be able to:

- Create a simple table to test DML statements
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- Delete rows from a table
- Drop a table