



## CSE 311L(Database Management System)

### LAB-Week 07 (Part A)

## Manipulating Data

### Topics:

- ▶ Copying Rows from Another Table
- ▶ Updating Rows in a Table
- ▶ Updating Rows Based on Another Table
- ▶ Example of Merging Rows

### Copying Rows from Another Table

```
INSERT INTO sales_reps(id, name, salary, commission_pct)
SELECT employee_id, last_name, salary, commission_pct
FROM employees
WHERE job_id LIKE '%REP%';
```

### Updating Rows in a Table

```
UPDATE employees
SET department_id = 70
WHERE employee_id = 113;
```

### Updating Rows Based on Another Table

```
UPDATE copy_emp
SET department_id =(SELECT department_id
                    FROM employees
                    WHERE employee_id = 100)
WHERE job_id      = (SELECT job_id
                    FROM employees
                    WHERE employee_id = 200);
```

## Example of Merging Rows

```
MERGE INTO copy_emp c
      USING employees e
      ON (c.employee_id = e.employee_id)
WHEN MATCHED THEN
      UPDATE SET
        c.first_name = e.first_name,
        c.last_name = e.last_name,
        c.email = e.email,
        c.phone_number = e.phone_number,
        c.hire_date = e.hire_date,
        c.job_id = e.job_id,
        c.salary = e.salary,
        c.commission_pct = e.commission_pct,
        c.manager_id = e.manager_id,
        c.department_id = e.department_id
WHEN NOT MATCHED THEN
      INSERT VALUES(e.employee_id, e.first_name, e.last_name,
        e.email, e.phone_number, e.hire_date, e.job_id,
        e.salary, e.commission_pct, e.manager_id,
        e.department_id);
```

### Activity 01:

Create a table that has some fields similar to employees table. Then insert 5 rows to the new table. Afterwards, merge the new table and the employees table to a new table based on employee number.



## CSE 311L(Database Management System)

### LAB-Week 07 (Part B)

## Managing Tables

### Topics:

- ▶ The ALTER TABLE Statement
- ▶ Adding a Column
- ▶ Modifying a Column
- ▶ Dropping a Column
- ▶ Changing the Name of an Object
- ▶ Truncating a Table
- ▶ Add PRIMARY KEY/ FOREIGN KEY constraints
- ▶ CREATE VIEW

### The ALTER TABLE Statement

Use the ALTER TABLE statement to:

- Add a new column
- Modify an existing column
- Define a default value for the new column
- Drop a column

### Adding a Column

```
ALTER TABLE dept80  
ADD (job_id VARCHAR2(9));
```

### Modifying a Column

```
ALTER TABLE dept80  
MODIFY (last_name VARCHAR2(30));
```

### Dropping a Column

```
ALTER TABLE dept80  
DROP COLUMN job_id;
```

### Dropping a Table

```
DROP TABLE dept80;
```

### Changing the Name of an Object

```
RENAME dept TO detail_dept;
```

## Truncating a Table

```
TRUNCATE TABLE detail_dept;
```

## Add PRIMARY KEY/ FOREIGN KEY constraints

```
ALTER TABLE employees
ADD CONSTRAINT emp_manager_fk
FOREIGN KEY(manager_id)
REFERENCES employees(employee_id);
```

## Creating a View

- Create a view by using column aliases in the subquery.

```
CREATE VIEW salvu50
AS SELECT employee_id ID_NUMBER, last_name NAME,
        salary*12 ANN_SALARY
FROM employees
WHERE department_id = 50;
View created.
```

### Activity 01:

Create the EMP table based on the following table instance chart..

Name	Null?	Type
ID		NUMBER(7)
LAST_NAME		VARCHAR2(25)
FIRST_NAME		VARCHAR2(25)
DEPT_ID		NUMBER(7)

- Modify the EMP table to allow for longer employee last names. Confirm your modification.
- Create the EMPLOYEES2 table based on the structure of the EMPLOYEES table. Include only the EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, SALARY, and DEPARTMENT\_ID columns. Name the columns in your new table ID, FIRST\_NAME, LAST\_NAME, SALARY , and DEPT\_ID, respectively.
- Drop the EMP table.
- Rename the EMPLOYEES2 table as EMP.
- Drop the FIRST\_NAME column from the EMP table. Confirm your modification by checking the description of the table.