Universidad Politécnica de Aguascalientes

Ingeniería en Sistemas Computacionales

Prácticas Oracle

BD 2

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Grupo de ISC06A
2022-3

Aguascalientes, Aguascalientes

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Practice 10.1

Vocabulary

Identify the vocabulary word for each definition below.

OUTER	It accepts a value from the inner query to complete its SELECT statement.
SUBQUERY OF MULTIPLE ROWS	An inner query that returns one or more rows to the outer query
SUBQUERY	An inner query that is nested within an outer query
MULTI-COLUMN SUBQUERY	An inner query that compares multiple columns at the same time
SUBQUERY OF A ROW	An inner query that returns only one row to the outer query
NON-PAIRS SUBQUERY	An inner query that compares the multiple columns one at a time in different subqueries
INNER	Another name for a subquery

Try It / Solve It

1. What is the purpose of using a subquery?

Find specific information.

2. What is a subquery?

It is an inner query that is nested inside an outer query.

Problem No:	No. Rows in Result:
What DJs on Demand d_play_list_items song_id's have the same event_id as song_id 45?	
Text Code (No image) :	
SELECT song_id FROM d_play_list_items WHERE event_id IN(SELECT event_id FROM d_play_list_items WHERE song_id =45);	
Image Result:	

.

Problem No:	No. Rows in Result:
Which events in the DJs on Demand database cost more than event_id = 100?	
Text Code (No image) :	
SELECT id, name FROM d_events WHERE cost > (SELECT cost FROM d_events WHERE id = 100);	
Image Result:	

Problem No:	No. Rows in Result:
Find the track number of the song that has the same CD number as “Party Music for All Occasions.”	
Text Code (No image) :	
SELECT track FROM d_track_listings WHERE cd_number = (SELECT cd_number FROM d_cds WHERE title = 'Party Music forAll Occasions')	
Image Result:	

Problem No:	No. Rows in Result:
List the DJs on Demand events whose theme code is the same as the code for “Tropical.”	
Text Code (No image) :	
SELECT id, name FROM d_events	

WHERE theme_code = (SELECT code FROM d_themes WHERE description = 'Tropical');
Image Result:

Problem No:	No. Rows in Result:
What are the names of the Global Fast Foods staff members whose salaries are greater than the staff member whose ID is 12? Bob Miller and Monique Tuttle.	
Text Code (No image) :	
SELECT first_name,last_name FROM f_staffs WHERE salary > (SELECT salary FROM f_staffs WHERE id = 12);	
Image Result:	

Problem No:	No. Rows in Result:
What are the names of the Global Fast Foods staff members whose staff types are not the same as Bob Miller's? Sue Doe and Monique Tuttle.	
Text Code (No image) :	

```
SELECT first_name,last_name

FROM f_staffs

WHERE staff_type != (SELECT staff_type FROM f_staffs WHERE
first_name = 'Bob' AND last_name ='Miller');
```

Image Result:

Problem No:	No. Rows in Result:
Which Oracle employees have the same department ID as the IT department? Alexander Hunold, Bruce Ernst y Diana Lorentz.	

Text Code (No image) :

```
SELECT first_name,last_name

FROM employees

WHERE department_id = (SELECT department_id FROM departments WHERE
department_name = 'IT');
```

Image Result:

Problem No:	No. Rows in Result:
What are the department names of the Oracle departments that have the same location ID as Seattle? Administration, Executive, Accounting and Contracting.	
Text Code (No image) :	
SELECT department_name FROM departments WHERE location_id = (SELECT location_id FROM locations WHERE city = 'Seattle');	
Image Result:	

11. Indicate whether the statement regarding subqueries is True or False.

a. It is good programming practice to place a subquery on the right side of the comparison operator. TRUE

b. A subquery can reference a table that is not included in the outer query's FROM clause.
TRUE

c. Single-row subqueries can return multiple values to the outer query.

FALSE

Practice 10.2

Problem No: 1	No. Rows in Result:
Write a query that returns all employees who have a higher salary than Lorentz and who are in the same department as Abel.	3

Text Code (No image) :

```
SELECT * FROM employees
where department_id = (SELECT department_id
                       FROM employees
                       Where last_name = 'Abel')
    and salary > (SELECT salary
                  FROM employees
                  WHERE last_name = 'Lorentz');
```

Image Result:

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	BONUS
1	149	Eleni	Zlotkey	EZLOTKEY	011.44.1344.429018	29-JAN-00	SA_MAN	10500	0.2	100	80	1500
2	174	Ellen	Abel	EABEL	011.44.1644.429267	11-MAY-96	SA_REP	11000	0.3	149	80	1700
3	176	Jonathon	Taylor	JTAYLOR	011.44.1644.429265	24-MAR-98	SA_REP	8600	0.2	149	80	1250

Problem No: 2	No. Rows in Result:
Write a query that returns all employees who have the same job ID as Rajs and who were hired after Davies.	4

Text Code (No image) :

```
select * from employees --ST_CLERK, 29-JAN-97
where job_id = 'ST_CLERK'; and hire_date > (select hire_date from
employees where employee_id = 142);
```

Image Result:

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	BONUS
1	141	Trenna	Rajs	TRAJS	650.121.8009	17-OCT-95	ST_CLERK	3500	(null)	124	50	(null)
2	142	Curtis	Davies	CDAVIES	650.121.2994	29-JAN-97	ST_CLERK	3100	(null)	124	50	(null)
3	143	Randall	Matos	RMATOS	650.121.2874	15-MAR-98	ST_CLERK	2600	(null)	124	50	(null)
4	144	Peter	Vargas	PVARGAS	650.121.2004	09-JUL-98	ST_CLERK	2500	(null)	124	50	(null)

Problem No: 3	No. Rows in Result:
Which DJs on Demand events have the same theme code which event ID = 100?	2

Text Code (No image) :

```
select * from d_events
where theme_code = (select theme_code from d_events where id =100);
```

Image Result:

	ID	NAME	EVENT_DATE	DESCRIPTION	COST	VENUE_ID	PACKAGE_CODE	THEME_CODE	CLIENT_NUMBER
1	100	Peters Graduation	14-MAY-04	Party for 200, red, white, blue motif	8000	100	112	200	5922
2	105	Vigil wedding	28-APR-04	Black tie at Four Season hotel	10000	220	200	200	6133

Problem No: 4	No. Rows in Result:
What is the type of staff of Global Fast Foods jobs that have a lower salary than any type of kitchen staff job?	2

Text Code (No image) :

```
SELECT staff_type, MIN(salary)
FROM f_staffs
Group By staff_type
HAVING MIN(salary) > (SELECT salary
                      FROM f_staffs
                      WHERE staff_type = 'Cook');
```

Image Result:

	STAFF_TYPE	MIN(SALARY)
1	Manager	60

Problem No: 5	No. Rows in Result:
Write a query that returns a list of department IDs and median salaries where the department median salary is greater than Ernst's salary.	6

Text Code (No image) :

```
SELECT department_id, ROUND(AVG(salary),2)
FROM employees
GROUP BY department_id
HAVING AVG(salary) > (SELECT salary
                      FROM employees
                      WHERE last_name = 'Ernst');
```

Image Result:

	DEPARTMENT_ID	ROUND(AVG(SALARY),2)
1	90	19333.33
2	110	10150
3	80	10033.33
4	(null)	7000
5	60	6400
6	20	9500

Problem No: 6	No. Rows in Result:
Return the department ID and minimum salary of all employees, grouped by department ID, who have a minimum salary greater than the minimum salary of employees whose department ID is not equal to 50.	6

Text Code (No image) :

```
SELECT department_id, MIN(salary)
FROM employees
WHERE department_id != 50
GROUP BY department_id;
```

Image Result:

	DEPARTMENT_ID	MIN(SALARY)
1	10	4400
2	20	6000
3	60	4200
4	80	8600
5	90	17000
6	110	8300

Practice 10.3

Objectives

• Correctly use the comparison operators IN, ANY, and ALL in multiple-row subqueries

• Describe what happens if a multiple-row subquery returns a null value

• Construct and execute a multiple-row subquery in the WHERE clause or HAVING clause

• Understand when multiple-row subqueries should be used, and when it is safe to use a single-row subquery

• Distinguish between pair-wise and non-pair-wise subqueries

• Create a query using the EXISTS and NOT EXISTS operators to test for returned rows from the subquery

Try It / Solve It

1. What will be returned by a query if it has a subquery that returns a null?

Nothing, it is a null value.

2. Write a query that returns jazz and pop songs. Write a multi-row subquery and use the d_songs and d_types tables. Include the id, title, duration, and the artist name.

SELECT id, title, duration, artist FROM d_songs WHERE type_code IN (SELECT code FROM d_types WHERE description IN ('Jazz', 'Pop'))

	ID	TITLE	DURATION	ARTIST
1	48	Meet Me At the Altar	6 min	Bobby West
2	45	Its Finally Over	5 min	The Hobbits
3	46	Im Going to Miss My Teacher	2 min	Jane Pop

3. Find the last names of all employees whose salaries are the same as the minimum salary for any department.

SELECT last_name FROM employees WHERE salary in (SELECT MIN(salary) FROM employees GROUP BY department_id);

	LAST_NAME
1	Kochhar
2	De Haan
3	Whalen
4	Gietz
5	Taylor
6	Grant
7	Vargas
8	Ernst
9	Lorentz
10	Fay

4. Which Global Fast Foods employee earns the lowest salary? Hint: You can use either a single-row or a multiple-row subquery.

DOE

SELECT last_name

FROM f_staffs

WHERE NVL(salary,0) = (SELECT MIN(NVL(salary,0)) FROM f_staffs);

DOE

SELECT last_name

FROM f_staffs

WHERE NVL(salary,0) = (SELECT MIN(NVL(salary,0)) FROM f_staffs);

	LAST_NAME
1	Doe

5. Place the correct multiple-row comparison operators in the outer query WHERE clause of each of the following:

SELECT last_name FROM f_staffs WHERE NVL(salary,0) = (SELECT MIN(NVL(salary,0)) FROM f_staffs);

a. Which CDs in our d_cds collection were produced before “Carpe Diem” was produced? WHERE year ____<_____ (SELECT year ...

b. Which employees have salaries lower than any one of the programmers in the IT department? WHERE salary _____(SELECT salary ...

c. What CD titles were produced in the same year as “Party Music for All Occasions” or “Carpe Diem”? WHERE year ____<ANY_____(SELECT year …

d. What song title has a duration longer than every type code 77 title? WHERE duration ____>ALL_____(SELECT duration ...

6. If each WHERE clause is from the outer query, which of the following are true?

__V__a. WHERE size > ANY -- If the inner query returns sizes ranging from 8 to 12, the value 9 could be returned in the outer query.

__F__b. WHERE book_number IN -- If the inner query returns books numbered 102, 105, 437, and 225 then 325 could be returned in the outer query.

__F__c. WHERE score <= ALL -- If the inner query returns the scores 89, 98, 65, and 72, then 82 could be returned in the outer query.

__V__d. WHERE color NOT IN -- If the inner query returns red, green, blue, black, and then the outer query could return white.

__F__e. WHERE game_date = ANY -- If the inner query returns 05-Jun-1997, 10-Dec-2002, and 2-Jan-2004, then the outer query could return 10-Sep-2002.

7. The goal of the following query is to display the minimum salary for each department whose minimum salary is less than the lowest salary of the employees in department 50. However, the subquery does not execute because it has five errors. Find them, correct them, and run the query.

SELECT department_id

FROM employees

WHERE MIN(salary)

HAVING MIN(salary) > GROUP BY department_id

SELECT MIN(salary)

WHERE department_id < 50;

ANSWER:

SELECT department_id, MIN(salary)

FROM employees

GROUP BY department_id

HAVING MIN(salary) < (SELECT MIN(salary) FROM employees WHERE department_id = 50);

8. Which statements are true about the subquery below?

SELECT employee_id, last_name FROM employees WHERE salary = (SELECT MIN(salary) FROM employees GROUP BY department_id);

___F___ a. The inner query could be eliminated simply by changing the WHERE clause to WHERE MIN (salary).

___V___ b. The query wants the names of employees who make the same salary as the smallest salary in any department.

___F___ c. The query first selects the employee ID and last name, and then compares that to the salaries in every department.

___V___ d. This query will not execute.

9. Write a pair-wise subquery listing the last_name, first_name, department_id, and manager_id for all employees that have the same department_ id and manager_id as employee 141. Exclude employee 141 from the result set.

SELECT last_name, first_name, department_id, manager_id FROM employeesWHERE (NVL(department_id,-1), NVL(manager_id,-1)) = (SELECT NVL(department_id,-1), NVL(manager_id,-1) FROM employees WHERE employee_id = 141) AND employee_id != 141;

	LAST_NAME	FIRST_NAME	DEPARTMENT_ID	MANAGER_ID
1	Davies	Curtis	50	124
2	Matos	Randall	50	124
3	Vargas	Peter	50	124

10. Write a non-pair-wise subquery listing the last_name, first_name, department_id, and manager_id for all employees that have the same department_ id and manager_id as employee 141.

SELECT last_name, first_name, department_id, manager_id FROM employees WHERE NVL(department_id, -1) = (SELECT NVL(department_id, -1) FROM employees WHERE employee_id = 141)AND NVL(manager_id, -1) = (SELECT NVL(manager_id, -1) FROM employees WHERE employee_id = 141) AND employee_id != 141;

	LAST_NAME	FIRST_NAME	DEPARTMENT_ID	MANAGER_ID
1	Davies	Curtis	50	124
2	Matos	Randall	50	124
3	Vargas	Peter	50	124

Practice 10.4

1. Explain the main difference between correlated and non-correlated subqueries?
A correlated subquery depends upon the outer query and cannot execute in isolation, but a regular or non-correlated subquery doesn't depend on the outer query and can execute in isolation.

2. Write a query that lists the highest earners for each department. Include the last_name, department_id, and the salary for each employee.

```
WITH salario as (SELECT nvl(department_id, '0'), max(salary) from employees
                    GROUP by nvl(department_id, '0'))
select last_name, department_id, salary
from employees
where (nvl(department_id, '0'), salary) in (SELECT * from salario);
```

3. Examine the following select statement and finish it so that it will return the last_name, department_id, and salary of employees who have at least one person reporting to them. So we are effectively looking for managers only. In the partially written SELECT statement, the WHERE clause will work as it is. It is simply testing for the existence of a row in the subquery.

```
select last_name, department_id, salary
from employees outer
where employee_id in (select distinct manager_id
                      from employees inner
                      where manager_id is not null)
order by department_id;
```

4. Using a WITH clause, write a SELECT statement to list the job_title of those jobs whose maximum
salary is more than half the maximum salary of the entire company. Name your subquery MAX_CALC_SAL. Name the columns in the result JOB_TITLE and JOB_TOTAL, and sort the
result on JOB_TOTAL in descending order.
Hint: Examine the jobs table. You will need to join JOBS and EMPLOYEES to display the job_title.

```
WITH max_calc_sal as (SELECT MAX(max_salary)/2 FROM jobs)
SELECT job_title
FROM jobs
WHERE jobs.max_salary > (SELECT * FROM max_calc_sal )
```

Practice 12.1

1. Give two examples of why it is important to be able to alter the data in a database.
    - It is important to make changes to the databases, because if the changes were not made, they would lose their usefulness.

-

2. DJs on Demand just purchased four new CDs. Use an explicit INSERT statement to add each CD to the copy_d_cds table. After completing the entries, execute a SELECT * statement to verify your work.

CD_Number	Title	Producer	Year
97	Celebrate the Day	R & B Inc.	2003
98	Holiday Tunes for All Ages	Tunes are Us	2004
99	Party Music	Old Town Records	2004
100	Best of Rock and Roll	Old Town Records	2004

```
create table copy_d_cds
as select * from d_cds
where 1=2;

insert all
   into copy_d_cds (cd_number, title, producer, year) values (97, 'Celebrate the Day','R '||chr(38)||'
B Inc.','2003')
   into copy_d_cds (cd_number, title, producer, year) values (98,'Holiday Tunes for All Ages','Tunes
are Us','2004')
   into copy_d_cds (cd_number, title, producer, year) values (99,'Party Music','Old Town
Records','2004')
   into copy_d_cds (cd_number, title, producer, year) values (100,'Best of Rock and Roll','Old Town
Records','2004')
select 1 from dual;

select * from copy_d_cds;
```

	CD_NUMBER	TITLE	PRODUCER	YEAR
1	97	Celebrate the Day	R & B Inc.	2003
2	98	Holiday Tunes for All Ages	Tunes are Us	2004
3	99	Party Music	Old Town Records	2004
4	100	Best of Rock and Roll	Old Town Records	2004

3. DJs on Demand has two new events coming up. One event is a fall football party and the other event is a sixties theme party. The DJs on Demand clients requested the songs shown in the table for their events. Add these songs to the copy_d_songs table using an implicit INSERT statement.

ID	Title	Duration	Type_Code
52	Surfing Summer	Not known	12
53	Victory Victory	5 min	12

```
create table copy_d_songs
as select * from d_songs
where 1=2;

alter table copy_d_songs drop column artist;

insert all
   into copy_d_songs values (52, 'Surfing Summer','Not Known','',12)
   into copy_d_songs values (53,'Victory Victory','5 min','',12)
select 1 from dual;
```

	ID	TITLE	DURATION	TYPE_CODE
1	52	Surfing Summer	Not Known	12
2	53	Victory Victory	5 min	12

4. Add the two new clients to the copy_d_clients table. Use either an implicit or an explicit INSERT.

Client_Number	First_Name	Last_Name	Phone	Email
6655	Ayako	Dahish	3608859030	dahisha@harbor.net
6689	Nick	Neuville	9048953049	nnicky@charter.net

```
create table copy_d_clients
as select * from d_clients
where 1=2;

insert all
   into copy_d_clients values (6655,'Ayako','Dahish',3608859030,'dahisha@harbor.net')
   into copy_d_clients values (6689,'Nick','Neuville',9048953049,'nnicky@charter.net')
select 1 from dual;
```

	CLIENT_NUMBER	FIRST_NAME	LAST_NAME	PHONE	EMAIL
1	6655	Ayako	Dahish	3608859030	dahisha@harbor.net
2	6689	Nick	Neuville	9048953049	nnicky@charter.net

5. Add the new client's events to the copy_d_events table. The cost of each event has not been determined at this date

ID	Name	Event_Date	Description	Cost	Venue_ID	Package_Code	Theme_Code	Client_Number
110	Ayako Anniversary	07-Jul-2004	Party for 50, sixties dress, decorations		245	79	240	6655
115	Neuville Sports Banquet	09-Sep-2004	Barbecue at residence, college allumni, 100 people		315	87	340	6689

```
create table copy_d_events
as select * from d_events
where 1=2;

insert all
    into copy_d_events values (110,'Ayako Anniversary',to_date('07/07/2004','dd/mm/yyyy'),'Party for
50, sixties dress, decorations',0,245,79,240,6655)
    into copy_d_events values (115,'Neuville Sports
Banquet',to_date('09/07/2004','dd/mm/yyyy'),'Barbecue at residence, college allumni, 100
people',0,315,87,340,6689)
select 1 from dual;
```

	ID	NAME	EVENT_DATE	DESCRIPTION	COST	VENUE_ID	PACKAGE_CODE	THEME_CODE	CLIENT_NUMBER
1	110	Ayako Anniversary	07-JUL-04	Party for 50, sixties dress, decorations	0	245	79	240	6655
2	115	Neuville Sports Banquet	09-JUL-04	Barbecue at residence, college allumni, 100 people	0	315	87	340	6689

6. Create a table called rep_email using the following statement: CREATE TABLE rep_email (id NUMBER(3) CONSTRAINT rel_id_pk PRIMARY KEY, first_name VARCHAR2(10), last_name VARCHAR2(10), email_address VARCHAR2(10)) Populate this table by running a query on the employees table that includes only those employees who are REP's.

```
INSERT INTO  rep_email(id ,first_name,last_name,email_address)
 SELECT employee_id,first_name, last_name, email
 FROM employees
 WHERE job_id LIKE '%REP%';

 select *from  rep_email;
```

	ID	FIRST_NAME	LAST_NAME	EMAIL_ADDRESS
1	174	Ellen	Abel	EABEL
2	176	Jonathon	Taylor	JTAYLOR
3	178	Kimberely	Grant	KGRANT
4	202	Pat	Fay	PFAY

Practice 12.2

I. Identify the vocabulary word for each definition below.

UPDATE	Modifies existing rows in a table

Correlated subquery UPDATE	Retrieves information from one table & uses the information to update another table
Integrity Constraint	Ensures that the data adheres to a predefined set of rules
Correlated subquery DELETE	Deletes information on a linked table based on what was deleted on the other table
Delete	Removes existing rows from a table

Problem No: 1	No. Rows in Result:
Monique Tuttle, the manager of Global Fast Foods, sent a memo requesting an immediate change in prices. The price for a strawberry shake will be raised from $3.59 to $3.75, and the price for fries will increase to $1.20. Make these changes to the copy_f_food_items table.	2

Text Code (No image) :

```
--create the copy of the table "f_food_items"
CREATE TABLE copy_f_food_items
AS (SELECT * FROM f_food_items);
--update the price for strawberry shake
UPDATE copy_f_food_items
SET price = 3.75
WHERE food_item_number = 93;
--update the price for fries
UPDATE copy_f_food_items
SET price = 1.20
WHERE food_item_number = 90;
--show the result
select food_item_number, description, price
from copy_f_food_items;
```

Image Result:

	FOOD_ITEM_NUMBER	DESCRIPTION	PRICE
1	90	Fries	1.09
2	93	Strawberry Shake	3.75

Problem No: 2	No. Rows in Result:
Bob Miller and Sue Doe have been outstanding employees at Global Fast Foods. Management has decided to reward them by increasing their overtime pay. Bob Miller will receive an additional $0.75 per hour and Sue Doe will receive an additional $0.85 per hour. Update the copy_f_staffs table to show these new values. (Note: Bob Miller currently doesn't get overtime pay. What function do you need to use to convert a null value to 0?)	2

Text Code (No image) :

```
--create the copy of the table f_staffs
CREATE TABLE copy_f_staffs AS (SELECT * FROM f_staffs);
--update the overtime rate for Bob Miller
update copy_f_staffs SET overtime_rate = nvl2(overtime_rate,
overtime_rate + 0.75, 0.75)
where id = 9;
--update the overtime rate for Sue Doe
update copy_f_staffs SET overtime_rate = nvl2(overtime_rate,
overtime_rate + 0.85, 0.85)
where id = 12;
```

Image Result:

	ID	FIRST_NAME	LAST_NAME	OVERTIME_RATE
1	9	Bob	Miller	0.75
2	12	Sue	Doe	11.1

Problem No: 3

No. Rows in Result: 4

Add the orders shown to the Global Fast Foods copy_f_orders table:

ORDER_NUMBER	ORDER_DATE	ORDER_TOTAL	CUST_ID	STAFF_ID
5680	June 12, 2004	159.78	145	9
5691	09-23-2004	145.98	225	12
5701	July 4, 2004	229.31	230	12

Text Code (No image) :

```
--create a copy from the table f_orders
CREATE TABLE copy_f_orders AS (SELECT * FROM f_orders);
--insert of values
INSERT INTO copy_f_orders VALUES (5680, TO_DATE('June 12, 2004',
'Month dd, yyyy'), 159.78, 145, 9);
INSERT INTO copy_f_orders VALUES (5691, TO_DATE('09-23-2004',
'mm/dd/yyyy'), 145.98, 225,12);
INSERT INTO copy_f_orders VALUES (5701, TO_DATE('July 4, 2004',
'Month dd, yyyy'), 229.31, 230, 12);
--show the table copy_f_orders
select * from copy_f_orders
order by order_number;
```

Image Result:

	ORDER_NUMBER	ORDER_DATE	ORDER_TOTAL	CUST_ID	STAFF_ID
1	5678	10-DEC-02	103.02	123	12
2	5680	12-JUN-04	159.78	145	9
3	5691	23-SEP-04	145.98	225	12
4	5701	04-JUL-04	229.31	230	12

Problem No: 4	No. Rows in Result:
Add the new customers shown below to the copy_f_customers table. You may already have added Katie Hernandez. Will you be able to add all these records successfully?	2

ID	FIRST_ NAME	LAST_ NAME	ADDRESS	CITY	STATE	ZIP	PHONE_NUMBER
145	Katie	Hernandez	92 Chico Way	Los Angeles	CA	98008	8586667641
225	Daniel	Spode	1923 Silverado	Denver	CO	80219	7193343523
230	Adam	Zum	5 Admiral Way	Seattle	WA		4258879009

Text Code (No image) :

```
--creates the copy of the table f_customers
create table copy_f_customers as (select * from f_customers);
--insert the values into the copy table
INSERT INTO copy_f_customers VALUES (145,'Katie','Hernandez','92
Chico','Los Angeles','CA',98008,8586667641);
--
INSERT INTO copy_f_customers VALUES (225,'Daniel','Spode','1923
Silverado','Denver','CO',80219,7193343523);
--
INSERT INTO copy_f_customers
(id,first_name,last_name,address,city,state,zip,phone_number)
VALUES (230,'Adam','Zum','5 Admiral
Way','Seattle','WA',4258879009);

*it was not possible to add “Adam Zum” because the field ‘Zip’
cannot be null or blank; must have a number.
```

Image Result:

	ID	FIRST_NAME	LAST_NAME	ADDRESS	CITY	STATE	ZIP	PHONE_NUMBER
1	145	Katie	Hernandez	92 Chico	Los Angeles	CA	98008	8586667641
2	225	Daniel	Spode	1923Silverado	Denver	CO	80219	7193343523

Problem No: 5	No. Rows in Result:
Sue Doe has been an outstanding Global Foods staff member and has been given a salary raise. She will now be paid the same as Bob Miller. Update her record in copy_f_staffs.	2

Text Code (No image) :

```
update copy_f_staffs
set salary = (select salary from copy_f_staffs
              where id = 9)
where id = 12;
```

Image Result:

	ID	FIRST_NAME	LAST_NAME	SALARY
1	12	Sue	Doe	10
2	9	Bob	Miller	10

Problem No: 6	No. Rows in Result:
Global Fast Foods is expanding their staff. The manager, Monique Tuttle, has hired Kai Kim. Not all information is available at this time, but add the information shown here.	1

ID	FIRST_NAME	LAST_NAME	BIRTHDATE	SALARY	STAFF_TYPE
25	Kai	Kim	3-Nov-1988	6.75	Order Taker

Text Code (No image) :

```
insert into copy_f_staffs (id, first_name, last_name, birthdate,
salary, staff_type)
VALUES (25, 'Kai', 'Kim', TO_DATE('03-Nov-1998', 'dd, mon, yyyy'),
6.75, 'Order Taker');
```

Image Result:

	ID	FIRST_NAME	LAST_NAME	BIRTHDATE	SALARY	OVERTIME_RATE	TRAINING	STAFF_TYPE	MANAGER_ID	MANAGER_BUDGET	MANAGER_TARGET
1	25	Kai	Kim	03-NOV-98	6.75	(null)	(null)	Order Taker	(null)	(null)	(null)

Problem No: 7	No. Rows in Result:
Now that all the information is available for Kai Kim, update his Global Fast Foods record to include the following: Kai will have the same manager as Sue Doe. He does not qualify for overtime. Leave the values for training, manager budget, and manager target as null.	2

Text Code (No image) :

```
UPDATE copy_f_staffs set manager_id = (select manager_id
from copy_f_staffs where id = 12), overtime_rate = 0
where id = 25;
```

Image Result:

	ID	FIRST_NAME	LAST_NAME	BIRTHDATE	SALARY	OVERTIME_RATE	TRAINING	STAFF_TYPE	MANAGER_ID	MANAGER_BUDGET	MANAGER_TARGET
1	12	Sue	Doe	01-JUL-80	10	11.1	(null)	Order Taker	19	(null)	(null)
2	25	Kai	Kim	03-NOV-98	6.75	0	(null)	Order Taker	19	(null)	(null)

Problem No: 8	No. Rows in Result:
Execute the following SQL statement. Record your results.	

DELETE from departments WHERE department_id = 60;	

Text Code (No image) :

```
DELETE from departments
WHERE department_id = 60;

--It is not possible to delete the department_id = 60 because
other registers or tables depend on it. The department_id is used
as an foreign key for other table that already had registers with
that department
```

Image Result:

Problem No: 9	No. Rows in Result:
Kim Kai has decided to go back to college and does not have the time to work and go to school. Delete him from the Global Fast Foods staff. Verify that the change was made.	3

Text Code (No image) :

```
delete from copy_f_staffs where id = 25;
SELECT * FROM copy_f_staffs;
```

Image Result:

	ID	FIRST_NAME	LAST_NAME	BIRTHDATE	SALARY	OVERTIME_RATE	TRAINING	STAFF_TYPE	MANAGER_ID	MANAGER_BUDGET	MANAGER_TARGET
1	12	Sue	Doe	01-JUL-80	10	11.1	(null)	Order Taker	19	(null)	(null)
2	9	Bob	Miller	19-MAR-79	10	0.75	Grill	Cook	19	(null)	(null)
3	19	Monique	Tuttle	30-MAR-69	60	(null)	(null)	Manager	(null)	50000	70000

Problem No: 10	No. Rows in Result:
Create a copy of the employees table and call it lesson7_emp; Once this table exists, write a correlated delete statement that will delete any employees from the lesson7_employees table that also exist in the job_history table.	

Text Code (No image) :

```
create table lesson_7_emp as (select * from employees);

DELETE from lesson_7_emp e
where e.employee_id in (select e.employee_id
                        from job_history h
                        where e.employee_id = h.employee_id);
```

```
select l.employee_id
from lesson_7_emp l
where l.employee_id in(select j.employee_id
                       from job_history j);
```

Image Result:

Practice 12.3

Problem 1.
When would you want a DEFAULT value?
Answer
When creating a row, no value is specified and I want the field to have a default value. For example, a column can be created and I want it to be populated with the current time when the row is created.

Problem 2.	
Currently, the Global Foods F_PROMOTIONAL_MENUS table START_DATE column does not have SYSDATE set as DEFAULT. Your manager has decided she would like to be able to set the starting date of promotions to the current day for some entries. This will require three steps:	
a. In your schema, Make a copy of the Global Foods F_PROMOTIONAL_MENUS table using the following SQL statement:	CREATE TABLE copy_f_promotional_menus AS (SELECT * FROM f_promotional_menus)
b. Alter the current START_DATE column attributes using:	ALTER TABLE copy_f_promotional_menus MODIFY(start_date DATE DEFAULT SYSDATE)

	COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1	CODE	VARCHAR2(3 BYTE)	Yes	(null)	1	(null)
2	NAME	VARCHAR2(30 BYTE)	No	(null)	2	(null)
3	START_DATE	DATE	No	SYSDATE	3	(null)
4	END_DATE	DATE	Yes	(null)	4	(null)
5	GIVE_AWAY	VARCHAR2(80 BYTE)	Yes	(null)	5	(null)

c. INSERT the new information and check to verify the results. INSERT a new row into the copy_f_promotional_menus table for the manager's new promotion. The promotion code is 120. The name of the promotion is 'New Customer.' Enter DEFAULT for the start date and '01-Jun-2005' for the ending date. The giveaway is a 10% discount coupon. What was the correct syntax used?	INSERT INTO copy_f_promotional_menus (code,name,start_date,end_date,give_away) VALUES('120','New Customer',DEFAULT,TO_DATE('01-Jun-2005','dd-Mon-yyyy'),' 10% discount coupon');

3	120	New Customer	04-OCT-22	01-JUN-05	10% discount coupon

Problem 3.

Allison Plumb, the event planning manager for DJs on Demand, has just given you the following list of CDs she acquired from a company going out of business. She wants a new updated list of CDs in inventory in an hour, but she doesn't want the original D_CDS table changed. Prepare an updated inventory list just for her.

a. Assign new cd_numbers to each new CD acquired.

b. Create a copy of the D_CDS table called manager_copy_d_cds. What was the correct syntax used?

```
create table manager_copy_d_cds
as(select * from d_cds)
```

c. INSERT into the manager_copy_d_cds table each new CD title using an INSERT statement. Make up one example or use this data:
20, 'Hello World Here I Am', 'Middle Earth Records', '1998'
What was the correct syntax used?

```
insert into manager_copy_d_cds
values (20, 'Hello World Here I Am',
'Middle Earth Records', '1998')
```

	CD_NUMBER	TITLE	PRODUCER	YEAR
1	90	The Celebrants Live in Concert	Old Town Records	1997
2	91	Party Music for All Occasions	The Music Man	2000
3	92	Back to the Shire	Middle Earth Records	2002
4	93	Songs from My Childhood	Old Town Records	1999
5	94	Carpe Diem	R and B Inc.	2000
6	95	Here Comes the Bride	The Music Man	2001
7	96	Graduation Songbook	Tunes Are Us	1998
8	98	Whirled Peas	Old Town Records	2004
9	20	Hello World Here I Am	Middle Earth Records	1998

d. Use a merge statement to add to the manager_copy_d_cds table, the CDs from the original table. If there is a match, update the title and year. If not, insert the data from the original table. What was the correct syntax used?

```
MERGE INTO manager_copy_d_cds tgt
USING d_cds src
ON (src.cd_number = tgt.cd_number)
WHEN MATCHED THEN UPDATE
SET  tgt.title = src.title,
tgt.producer = src.producer,
tgt.year = src.year
WHEN NOT MATCHED THEN INSERT
VALUES (src.cd_number, src.title,
src.producer, src.year);
```

	CD_NUMBER	TITLE	PRODUCER	YEAR
1	90	The Celebrants Live in Concert	Old Town Records	1997
2	91	Party Music for All Occasions	The Music Man	2000
3	92	Back to the Shire	Middle Earth Records	2002
4	93	Songs from My Childhood	Old Town Records	1999
5	94	Carpe Diem	R and B Inc.	2000
6	95	Here Comes the Bride	The Music Man	2001
7	96	Graduation Songbook	Tunes Are Us	1998
8	98	Whirled Peas	Old Town Records	2004
9	20	Hello World Here I Am	Middle Earth Records	1998

Problem 4.

Run the following 3 statements to create 3 new tables for use in a Multi-table insert statement. All 3 tables should be empty on creation, hence the WHERE 1=2 condition in the WHERE clause.

CREATE TABLE sal_history (employee_id, hire_date, salary) AS SELECT employee_id, hire_date, salary FROM employees WHERE 1=2;

CREATE TABLE mgr_history (employee_id, manager_id, salary) AS SELECT employee_id, manager_id, salary FROM employees WHERE 1=2;

CREATE TABLE special_sal (employee_id, salary) AS SELECT employee_id, salary FROM employees WHERE 1=2;

Once the tables exist in your account, write a Multi-Table insert statement to first select the employee_id, hire_date, salary, and manager_id of all employees. If the salary is more than 20000 insert the employee_id and salary into the special_sal table. Insert the details of employee_id, hire_date, and salary into the sal_history table. Insert the employee_id, manager_id, and salary into the mgr_history table.

a. Use a merge statement to add to the manager_copy_d_cds table, the CDs from the original table. If there is a match, update the title and year. If not, insert the data from the original table. What was the correct syntax used?

```
INSERT FIRST
WHEN salary > 20000 THEN
INTO special_sal
VALUES(employee_id, salary)
ELSE
INTO sal_history
VALUES(employee_id, hire_date,
salary)
INTO mgr_history
VALUES(employee_id, manager_id,
salary)
SELECT employee_id, salary,
hire_date, manager_id
FROM employees;
```

SELECT COUNT(*) as rows_in_mgr_history FROM mgr_history;
SELECT COUNT(*) as rows_in_special_sal FROM special_sal;
SELECT COUNT(*) as rows_in_sal_history FROM sal_history;

	ROWS_IN_SPECIAL_SAL
1	1

	ROWS_IN_SAL_HISTORY
1	19

	ROWS_IN_MGR_HISTORY
1	19