Database Programming with SQL

10-1: Fundamentals of Subqueries

Practice Activities

Objectives

* Define and explain the purpose of subqueries for retrieving data
* Construct and execute a single-row subquery in the WHERE clause
* Distinguish between single-row and multiple-row subqueries

Vocabulary

Identify the vocabulary word for each definition below.

|  |  |
| --- | --- |
| Outer query | It accepts a value from the inner query to complete its SELECT  statement. |
| Multiple rows subquery | An inner query that returns one or more rows to the outer query |
| subquery | An inner query that is nested within an outer query |
|  | An inner query that compares multiple columns at the same time |
| Single row subquery | An inner query that returns only one row to the outer query |
|  | An inner query that compares the multiple columns one at a time in different subqueries |
| Inner query | Another name for a subquery |

1. What is the purpose of using a subquery?

Sa gasim informatia **intermediara** de care avem nevoie

2. What is a subquery?

E practic un select in select, e o intrebare aditionala pusa BD-ului ca sa rezolve problema principala

3. What DJs on Demand d\_play\_list\_items song\_id’s have the same event\_id as song\_id 45?

SELECT song\_id

from d\_play\_list\_items

where event\_id in (select event\_id from d\_play\_list\_items where song\_id = 45)

4. Which events in the DJs on Demand database cost more than event\_id = 100?

select name

from d\_events

where cost > (select cost from d\_events where id = 100)

5. Find the track number of the song that has the same CD number as “Party Music for All

Occasions.”

SELECT track

FROM d\_track\_listings

WHERE cd\_number = (SELECT cd\_number FROM d\_cds WHERE title = 'Party Music for All Occasions')

6. List the DJs on Demand events whose theme code is the same as the code for “Tropical.”

SELECT name

FROM d\_events

where theme\_code = (select theme\_code from d\_themes where description = 'Tropical')

7. What are the names of the Global Fast Foods staff members whose salaries are greater than the

staff member whose ID is 12?

select first\_name, last\_name

from f\_staffs

where salary > (select salary from f\_staffs where id = 12)

8. What are the names of the Global Fast Foods staff members whose staff types are not the same

as Bob Miller’s?

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')

9. Which Oracle employees have the same department ID as the IT department?

select first\_name, last\_name from employees

where department\_id = (select department\_id from departments where department\_name = 'IT')

10. What are the department names of the Oracle departments that have the same location ID as

Seattle?

SELECT department\_name

FROM departments

WHERE location\_id = ( SELECT location\_id FROM locations WHERE city = 'Seattle');

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.

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

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