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**UPA**

**Universidad Politécnica de Aguascalientes.**

**ISC06B**

**DATA BASE ADMINISTRATION**

# DP 10-1 PRACTICE

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**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.

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| --- | --- |
| Outer query | It accepts a value from the inner query to complete its SELECT statement. |
| Multiple-row 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 |
| Pair wise subquery | 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 |
| Non-pair wise subquery | An inner query that compares the multiple columns one at a time in different subqueries |
| Inner query | Another name for a subquery |

**Try It / Solve It**

**1.What is the purpose of using a subquery?**

Avoid performing two or more different queries when the information of one is needed by the other.

**2.** **What is a subquery?**

A select statement nested in a clause of another select statement

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

|  |  |
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| Problem No: 3 | No. Rows in Result: |
| . What DJs on Demand d\_play\_list\_items song\_id’s have the same event\_id as song\_id 45? | 3 |
| Text Code (No image) : | |
| --DP-10-1  --What DJs on Demand d\_play\_list\_items song\_id’s have the same event\_id as song\_id 45?  select id, artist, title  from d\_songs  where id in (select song\_id  from d\_play\_list\_items  where event\_id = (select event\_id  from d\_play\_list\_items  where song\_id=45)); | |
| Image Result: | |
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**4. Which events in the DJs on Demand database cost more than event\_id = 100?**

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| Problem No: 4 | No. Rows in Result: |
| Which events in the DJs on Demand database cost more than event\_id = 100? | 1 |
| Text Code (No image) : | |
| --DP-10-1  --4. Which events in the DJs on Demand database cost more than event\_id = 100?  select name, cost  from d\_events  where cost > (select cost  from d\_events  where id = 100); | |
| Image Result: | |
|  | |
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**5. Find the track number of the song that has the same CD number as “Party Music for All Occasions.”**

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| Problem No: 5 | No. Rows in Result: |
| 5. Find the track number of the song that has the same CD number as “Party Music for All Occasions.” | 2 |
| Text Code (No image) : | |
| --DP-10-1  --5. Find the track number of the song that has the same CD number as “Party Music for All Occasions.”  select track, cd\_number  from d\_track\_listings  where cd\_number = (select cd\_number  from d\_cds  where title like 'Party Music for All Occasions'); | |
| Image Result: | |
|  | |
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**6. List the DJs on Demand events whose theme code is the same as the code for “Tropical.”**

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| Problem No: 5 | No. Rows in Result: |
| --6. List the DJs on Demand events whose theme code is the same as the code for “Tropical.” | 2 |
| Text Code (No image) : | |
| --DP-10-1  --6. List the DJs on Demand events whose theme code is the same as the code for “Tropical.”  select id, name, theme\_code  from d\_events  where theme\_code = (select code  from d\_themes  where upper(description) like 'TROPICAL') | |
| Image Result: | |
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**7. What are the names of the Global Fast Foods staff members whose salaries are greater than the staff member whose ID is 12?**

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| Problem No: 5 | No. Rows in Result: |
| 7. What are the names of the Global Fast Foods staff members whose salaries are greater than the staff member whose ID is 12? | 2 |
| Text Code (No image) : | |
| --DP-10-1  --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, salary  from F\_STAFFS  where salary > (select salary  from f\_staffs  where id=12); | |
| Image Result: | |
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**8. What are the names of the Global Fast Foods staff members whose staff types are not the same as Bob Miller’s?**

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| Problem No: 5 | No. Rows in Result: |
| --8. What are the names of the Global Fast Foods staff members whose staff types are not the same as Bob Miller’s? | 2 |
| Text Code (No image) : | |
| --DP-10-1  --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, salary, staff\_type  from F\_STAFFS  where staff\_type <> (select staff\_type  from f\_staffs  where upper(first\_name) like 'BOB'  and upper (last\_name) like 'MILLER'); | |
| Image Result: | |
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**9. Which Oracle employees have the same department ID as the IT department?**

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| Problem No: 5 | No. Rows in Result: |
| --9. Which Oracle employees have the same department ID as the IT department? | 3 |
| Text Code (No image) : | |
| --DP-10-1  --9. Which Oracle employees have the same department ID as the IT department?  select first\_name, department\_id  from employees  where department\_id = (select department\_id  from departments  where UPPER(DEPARTMENT\_NAME) like 'IT') | |
| Image Result: | |
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**10.What are the department names of the Oracle departments that have the same location ID as Seattle?**

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| Problem No: 5 | No. Rows in Result: |
| ---10.What are the department names of the Oracle departments that have the same location ID as Seattle? | 4 |
| Text Code (No image) : | |
| --DP-10-1  ---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 upper(city) like 'SEATTLE'); | |
| Image Result: | |
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**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.** FALSE

**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