

## Database Programming with SQL

### 6-1: Cross Joins and Natural Joins

#### Practice Activities

##### Objectives

- Construct and execute a natural join using ANSI-99 SQL join syntax
- Create a cross join using ANSI-99 SQL join syntax
- Explain the importance of having a standard for SQL as defined by ANSI
- Describe a business need for combining information from multiple data sources

##### Vocabulary

Identify the vocabulary word for each definition below.

CROSS JOIN	Returns the Cartesian product from two tables.
NATURAL JOIN	Joins two tables based on the same column name.

##### Try It / Solve It

Use the Oracle database for problems 1-3.

1. Create a cross-join that displays the last name and department name from the employees and departments tables.
2. Create a query that uses a natural join to join the departments table and the locations table. Display the department id, department name, location id, and city.
3. Create a query that uses a natural join to join the departments table and the locations table. Restrict the output to only department IDs of 20 and 50. Display the department id, department name, location id, and city.

```
1.SELECT last_name, department_name  
FROM employees CROSS JOIN departments;
```

```
2.SELECT department_id,department_name, location_id, city  
FROM departments NATURAL JOIN locations;
```

```
3.  
SELECT department_id,department_name, location_id, city  
FROM departments NATURAL JOIN locations  
WHERE department_id in (20, 50);
```