**Section 15.3**

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1. SELECT cust.first\_name, cust.last\_name, odr.order\_number, odr.order\_total

FROM f\_customers cust, f\_orders odr

WHERE cust.id = odr.cust\_id(+)

1. SELECT emp.last\_name, dept.department\_id, dept.department\_name

FROM employees emp, departments dept

WHERE emp.department\_id = dept.department\_id(+)

1. SELECT emp.last\_name, dept.department\_id, dept.department\_name

FROM employees emp, departments dept

WHERE emp.department\_id(+) = dept.department\_id

1. Code:
   1. WHERE e.department\_id = d.department\_id(+);
   2. SELECT e.first\_name, e.last\_name, d.department\_name, d.department\_id  
      FROM employees e, departments d  
      WHERE e.department\_id = d.department\_id;
   3. WHERE e.position >= p.highest AND e.position <= p.lowest;
   4. SELECT e.employee\_id, e.last\_name, d.location\_id  
      FROM employees e, departments d  
      WHERE e.department\_id = d.department\_id
2. SELECT c.title, t.song\_id, c.cd\_number

FROM d\_cds c, d\_track\_listings t

WHERE t.cd\_number = c.cd\_number(+)

1. SELECT e.last\_name AS "Employee", e.employee\_id AS "Employee Number", e.manager\_id AS "Manager Number"

FROM employees e

WHERE e.employee\_id = e.manager\_id

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FROM employees e

WHERE e.employee\_id = e.manager\_id(+)

1. ?
2. SELECT e.last\_name, e.department\_id, d.department\_name

FROM employees e, departments d

1. SELECT l.location\_id, l.city, d.department\_name

FROM locations l, departments d

WHERE l.location\_id(+) = d.location\_id

1. SELECT e.last\_name, d.department\_id

FROM employees e, departments d

WHERE e.department\_id = d.department\_id AND e.last\_name = 'Lorentz'

1. The side of the join that gets the (+) is the side you already have the information for. For example, if you have all the locations but still need departments, the (+) would be placed on the location side since we have all the information and we want the department regardless of if it has a location or not.