

```

1  --INNER JOIN
2  SELECT * FROM customer
3  INNER JOIN actor
4  ON customer.first_name = actor.first_name

```

Data Output Explain Messages Notifications

| | customer_id integer | store_id smallint | first_name character varying (45) | last_name character varying (45) | email character varying (50) | address_id smallint |
|----|------------------------|----------------------|--------------------------------------|-------------------------------------|------------------------------------|------------------------|
| 1 | 1 | 1 | Mary | Smith | mary.smith@sakilacustomer.org | 5 |
| 2 | 1 | 1 | Mary | Smith | mary.smith@sakilacustomer.org | 5 |
| 3 | 6 | 2 | Jennifer | Davis | jennifer.davis@sakilacustomer.org | 10 |
| 4 | 8 | 2 | Susan | Wilson | susan.wilson@sakilacustomer.org | 12 |
| 5 | 8 | 2 | Susan | Wilson | susan.wilson@sakilacustomer.org | 12 |
| 6 | 11 | 2 | Lisa | Anderson | lisa.anderson@sakilacustomer.org | 15 |
| 7 | 15 | 1 | Helen | Harris | helen.harris@sakilacustomer.org | 19 |
| 8 | 16 | 2 | Sandra | Martin | sandra.martin@sakilacustomer.org | 20 |
| 9 | 16 | 2 | Sandra | Martin | sandra.martin@sakilacustomer.org | 20 |
| 10 | 21 | 1 | Michelle | Clark | michelle.clark@sakilacustomer.org | 25 |
| 11 | 22 | 1 | Laura | Rodriguez | laura.rodriguez@sakilacustomer.org | 26 |
| 12 | 26 | 2 | Jessica | Hall | jessica.hall@sakilacustomer.org | 30 |

| activebool boolean | create_date date | last_update timestamp without time zone | active integer | actor_id integer | first_name character varying (45) | last_name character varying (45) | last_update timestamp |
|-----------------------|---------------------|--|-------------------|---------------------|--------------------------------------|-------------------------------------|--------------------------|
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 198 | Mary | Keitel | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 66 | Mary | Tandy | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 4 | Jennifer | Davis | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 110 | Susan | Davis | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 101 | Susan | Davis | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 178 | Lisa | Monroe | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 17 | Helen | Voight | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 0 | 30 | Sandra | Peck | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 0 | 23 | Sandra | Kilmer | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 70 | Michelle | Mcconaughey | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 159 | Laura | Brody | 2013-05-26 14:49:45.738 |
| true | 2006-02-14 | 2013-05-26 14:49:45.738 | 1 | 67 | Jessica | Bailey | 2013-05-26 14:49:45.738 |

```

1  --INNER JOIN - Let's Explore
2  SELECT * FROM customer;
3  SELECT * FROM payment;
4  --both have customer_id so join them
5
6  SELECT * FROM customer
7  INNER JOIN payment
8  ON customer.customer_id = payment.customer_id
9  WHERE email LIKE 'p%'

```

Data Output Explain Messages Notifications




| | customer_id integer | store_id smallint | first_name character varying (45) | last_name character varying (45) | email character varying (50) | address_id smallint |
|----|------------------------|----------------------|--------------------------------------|-------------------------------------|----------------------------------|------------------------|
| 1 | 341 | 1 | Peter | Menard | peter.menard@sakilacustomer.org | 346 |
| 2 | 341 | 1 | Peter | Menard | peter.menard@sakilacustomer.org | 346 |
| 3 | 341 | 1 | Peter | Menard | peter.menard@sakilacustomer.org | 346 |
| 4 | 341 | 1 | Peter | Menard | peter.menard@sakilacustomer.org | 346 |
| 5 | 341 | 1 | Peter | Menard | peter.menard@sakilacustomer.org | 346 |
| 6 | 341 | 1 | Peter | Menard | peter.menard@sakilacustomer.org | 346 |
| 7 | 385 | 1 | Phillip | Holm | phillip.holm@sakilacustomer.org | 390 |
| 8 | 385 | 1 | Phillip | Holm | phillip.holm@sakilacustomer.org | 390 |
| 9 | 385 | 1 | Phillip | Holm | phillip.holm@sakilacustomer.org | 390 |
| 10 | 393 | 1 | Philip | Causey | philip.causey@sakilacustomer.org | 398 |
| 11 | 393 | 1 | Philip | Causey | philip.causey@sakilacustomer.org | 398 |
| 12 | 393 | 1 | Philip | Causey | philip.causey@sakilacustomer.org | 398 |

```

1  --OUTER JOIN
2  --3 types: Full, Left, Right
3  --Left outer join contains all of Table A and clashing values from
4  --Full outer join joins everything from Table A and Table B
5  --Can also use outer join to exclude their inner values by using
6  --"WHERE TableA.id IS NULL OR TableB.id IS NULL"
7
8  --PRACTICE
9  SELECT film.film_id, film.title, inventory_id
10 FROM film
11 LEFT OUTER JOIN inventory ON inventory.film_id=film.film_id
12 WHERE inventory.film_id is NULL
13 ORDER BY film.film_id;

```

Data Output Explain Messages Notifications

| |  film_id integer |  title character varying (255) |  inventory_id integer | |
|----|--|--|---|--|
| 1 | 14 | Alice Fantasia | [null] | |
| 2 | 33 | Apollo Teen | [null] | |
| 3 | 36 | Argonauts Town | [null] | |
| 4 | 38 | Ark Ridgemont | [null] | |
| 5 | 41 | Arsenic Independence | [null] | |
| 6 | 87 | Boondock Ballroom | [null] | |
| 7 | 108 | Butch Panther | [null] | |
| 8 | 128 | Catch Amistad | [null] | |
| 9 | 144 | Chinatown Gladiator | [null] | |
| 10 | 148 | Chocolate Duck | [null] | |
| 11 | 171 | Commandments Express | [null] | |
| 12 | 192 | Crossing Divorce | [null] | |
| 13 | 195 | Crowds Telemark | [null] | |

```

1  --UNION
2
3  SELECT customer_id FROM customer
4  UNION ALL
5  SELECT customer_id from payment
6  ORDER BY customer_id

```

Data Output Explain Messages Notifications

| | customer_id integer | |
|----|------------------------|--|
| 1 | 1 | |
| 2 | 1 | |
| 3 | 1 | |
| 4 | 1 | |
| 5 | 1 | |
| 6 | 1 | |
| 7 | 1 | |
| 8 | 1 | |
| 9 | 1 | |
| 10 | 1 | |
| 11 | 1 | |
| 12 | 1 | |
| 13 | 1 | |