

# 175. Combine Two Tables

July 10, 2017 | 149.8K views

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Table: **Person**

Column Name	Type
PersonId	int
FirstName	varchar
LastName	varchar

PersonId is the primary key column for this table.

Table: **Address**

Column Name	Type
AddressId	int
PersonId	int
City	varchar
State	varchar

AddressId is the primary key column for this table.

Write a SQL query for a report that provides the following information for each person in the Person table, regardless if there is an address for each of those people:

FirstName, LastName, City, State

## Solution

Approach: Using **outer join** [Accepted]

### Algorithm

Since the *PersonId* in table **Address** is the foreign key of table **Person**, we can join this two table to get the address information of a person.

Considering there might not be an address information for every person, we should use **outer join** instead of the default **inner join**.

### MySQL

```
select FirstName, LastName, City, State
from Person left join Address
on Person.PersonId = Address.PersonId
;
```

Note: Using **where** clause to filter the records will fail if there is no address information for a person because it will not display the name information.

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tiffanymiao11 ★45 July 12, 2018 4:33 AM

why the left join is accepted instead of full join?

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spanangi ★55 June 22, 2018 12:12 PM

```
select a.FIRSTNAME, a.LASTNAME, b.CITY, b.STATE from PERSON a, ADDRESS b where
a.PERSONID = b.PERSONID;
```

I ran this query and it worked with no issues even with null values in columns. Any particular reason this isn't to be written in this fashion?

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skloganat ★41 August 13, 2018 11:21 AM

Oracle SQL- syntax:-

```
select firstname, lastname, city, state
from person
left join address on person.personid = address.personid;
```

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shivamraj96 ★12 September 18, 2018 1:11 AM

can we use natural join here

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Lbrucel ★14 September 21, 2018 10:28 PM

Why does the solution above read, "Approach: Using outer join [Accepted]" yet the code shows *left join*?

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Siomon ★8 May 2, 2018 6:07 PM

```
SELECT Person.FirstName, Person.LastName, Address.City, Address.State FROM Person NATURAL LEFT
JOIN Address;
```

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iristectorumgh ★6 February 23, 2019 8:57 AM

```
select * from Person
join Address on Person.PersonId = Address.PersonId
```

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utf88 ★6 April 3, 2019 3:16 PM

```
select FirstName,LastName,City,State
from Person p
left join Address a
on p.PersonId=a.PersonId
;
```

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kalyansahu ★6 March 11, 2019 7:39 AM

I would rather not use left outer join unless I have to. Query optimization must be kept in mind.

```
select
FirstName, LastName, City, StateName
from person
```

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yangyizmm ★5 August 18, 2018 12:30 PM

Can't I use " full outer join"? It judged my code error, why?

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