Artist that one or more customers interested in

```
SELECT   A.FirstName, A.LastName
FROM ARTIST AS A
      WHERE EXISTS (SELECT   CAI.CustomerID
            FROM  CUSTOMER_ARTIST_INT AS CAI
               WHERE A.ArtistID = CAI.ArtistID));
```

Artists that no customer interested in

```sql
SELECT   A.FirstName, A.LastName
FROM ARTIST AS A
    WHERE NOT EXISTS (SELECT  CAI.CustomerID
            FROM  CUSTOMER_ARTIST_INT AS CAI
                WHERE A.ArtistID = CAI.ArtistID));
```

Artist that every customer interested in

```
/* *** SQL-Query-CH08-06 *** */
SELECT  A.FirstName, A.LastName
FROM    ARTIST AS A
WHERE   NOT EXISTS
        SELECT      C.CustomerID
        FROM        CUSTOMER AS C
        WHERE       NOT EXISTS
                    (SELECT      CAI.CustomerID
                     FROM        CUSTOMER_ARTIST_INT AS CAI
                     WHERE       C.CustomerID = CAI.CustomerID
                        AND      A.ArtistID = CAI.ArtistID));
```

CUSTOMER

Customer ID	LastName	FirstName	Country	Area Code	Phone Number
1000	James	Jeffery	USA	425	543-2345
1001	Smith	David	USA	970	654-9876
1015	Twilight	Tiffany	USA	360	765-5566
1033	Smathers	Fred	USA	206	876-9911
1034	Frederickson	Mary Beth	USA	303	513-8822
1036	Waming	Selma	Canada	604	988-0512
1037	Wu	Susan	USA	404	653-3465
1040	Gray	Donald	USA	707	568-4839
1041	Johnson	Lynda	USA	202	438-5498
1051	Wilkens	Chris	USA	360	876-8822

ARTIST

ArtistID	LastName	FirstName	Nationality	DateOf Birth	Date Deceased
1	Miro	Joan	Spanish	1893	1983
2	Kandinsky	Wassily	Russian	1866	1944
3	Klee	Paul	German	1879	1940
4	Matisse	Henri	French	1869	1954
5	Chagall	Marc	French	1887	1985
11	Sargent	John Singer	United States	1856	1925
17	Tobey	Mark	United States	1890	1976
18	Horiuchi	Paul	United States	1906	1999
19	Graves	Morris	United States	1920	2001

Figure 7-15: Populating the VRG Database Tables: CUSTOMER_ARTIST_INT

ArtistID	CustomerID	ArtistID	CustomerID
1	1001	17	1033
1	1034	17	1040
2	1001	17	1051
2	1034	18	1000
4	1001	18	1015
4	1034	18	1033
5	1001	18	1040
5	1034	18	1051
5	1036	19	1000
11	1001	19	1015
11	1015	19	1033
11	1036	19	1036
17	1000	19	1040
17	1015	19	1051

```
/* *** SQL-Query-CH08-06 *** */
SELECT  A.FirstName, A.LastName
FROM    ARTIST AS A
WHERE   NOT EXISTS
        SELECT      C.CustomerID
        FROM        CUSTOMER AS C
        WHERE       NOT EXISTS
                    (SELECT      CAI.CustomerID
                     FROM        CUSTOMER_ARTIST_INT AS CAI
                     WHERE       C.CustomerID = CAI.CustomerID
                          AND    A.ArtistID = CAI.ArtistID));
```

A   B   C

ArtistID	CustomerID
1	1001
1	1034

A	CustomerID
	1001
	1034

B Complement of A	CustomerID
	1000
	1015
	1033
	1036
	1037
	1040
	1041
	1051

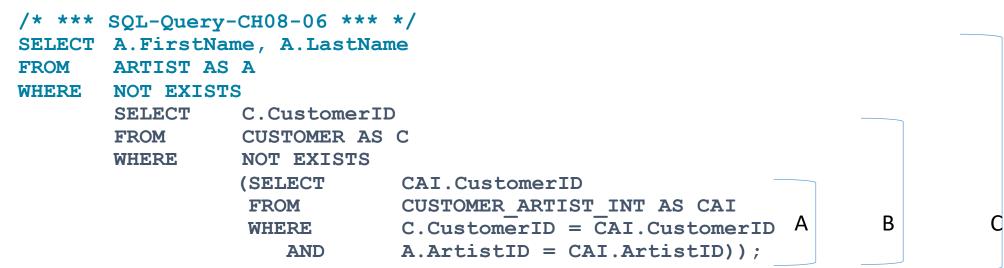| **C** As B returns result, it means True, No Exists means False So ArtistId=1, not listed in the final list	Title | Copy

```
/* *** SQL-Query-CH08-06 *** */
SELECT  A.FirstName, A.LastName
FROM    ARTIST AS A
WHERE   NOT EXISTS
        SELECT      C.CustomerID
        FROM        CUSTOMER AS C
        WHERE       NOT EXISTS
                    (SELECT      CAI.CustomerID
                     FROM        CUSTOMER_ARTIST_INT AS CAI
                     WHERE       C.CustomerID = CAI.CustomerID
                        AND      A.ArtistID = CAI.ArtistID));
```
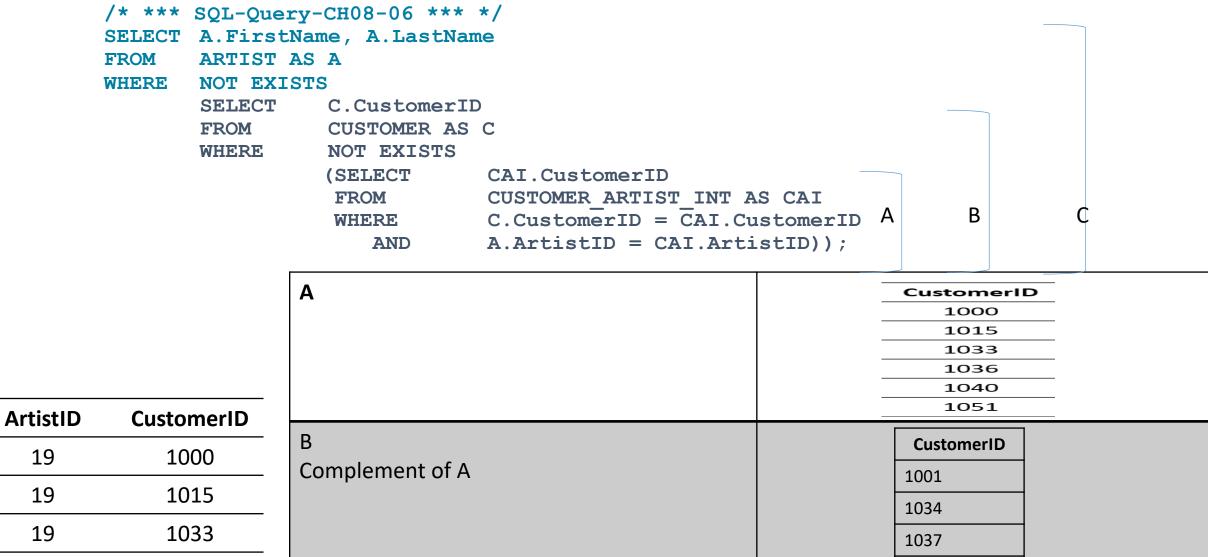
A   B   C

ArtistID	CustomerID
5	1001
5	1034
5	1036

A

CustomerID
1001
1034
1036

B
Complement of A

CustomerID
1000
1015
1033
1037
1040
1041
1051

C
As B returns result, it means True,
No Exists means False
So ArtistId=5, not listed in the final list

Title	Copy

```
/* *** SQL-Query-CH08-06 *** */
SELECT  A.FirstName, A.LastName
FROM    ARTIST AS A
WHERE   NOT EXISTS
        SELECT    C.CustomerID
        FROM      CUSTOMER AS C
        WHERE     NOT EXISTS
                  (SELECT      CAI.CustomerID
                   FROM        CUSTOMER_ARTIST_INT AS CAI
                   WHERE       C.CustomerID = CAI.CustomerID
                       AND     A.ArtistID = CAI.ArtistID));
```

A   B   C

ArtistID	CustomerID
19	1000
19	1015
19	1033
19	1036
19	1040
19	1051

A

CustomerID
1000
1015
1033
1036
1040
1051

B
Complement of A

CustomerID
1001
1034
1037
1041

C
As B returns result, it means True,
No Exists means False
So ArtistId=19, not listed in the final list

Title	Copy