

Here are some relations that exist in a database for an orchestra.

Person(email, name, age)

- This relation stores anyone who has signed up for our mailing list. Tuples in this relation may not be listed in Purchase.

Show(id, year, month, day, showing, attendanceNumber)

- Showing describes whether a show was during morning, afternoon, or evening
- {year, month, day, showing} is a candidate key for Show

Song(composer, title)

SongsPerformed(showID, composer, title)

- showID is a foreign key referring to Show
- composer and title are foreign keys referring to attributes of the same name in Song

Purchase(email, showID, price)

- email is a foreign key referring to the email attribute in Person
- showID is a foreign key referring to Show

Musician(id, name, instrument, position, nationality)

PerformedIn(id, showID)

- id refers to the attribute of the same name in Musician
- showID is a foreign key referring to Show

Write SQL statements to answer the following questions:

1. Find the email addresses of people who attended a show in January 2019.

Do you need DISTINCT? Why or why not?

2. Find the year, month, day, and attendance numbers of all shows that had a Canadian musician perform in it.
3. Find the names of all musicians who play the flute.

Do you need DISTINCT? Why or why not?