

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 total number of attendees for each day there was a show. Don't forget that a single day can have multiple shows!
2. Find the total number of Canadian musicians per instrument.
3. For all the shows where the audience's average age is greater than the average age of our mailing list, what songs were performed?