Here are some relations that exist in a database for a symphony.

Person(email, name, age)

- This relation stores anyone who has signed up for our mailing list. There may be tuples in this relation that are not listed in Purchase (i.e., there may be some people who do not make purchases).

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

- Showing describes whether a show was during morning, afternoon, or evening

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 relational algebra statements to answer the following questions:

1. Find all the musicians who play the piano or the violin.
2. Find the email addresses of all the people who have signed up for our mailing list who did not purchase a ticket to a show.
3. **[Optional]** Find the songs which have been performed exactly once.
    a. This is a hard question. We include it here in case you want to play with relational algebra a bit more but we will talk much more about it later so don't worry if you can't figure out how to do this yet.