

## Datalog 1 In-class Exercise

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Write Datalog statements to answer the following questions:

1. Find the year, month, date, and attendance numbers of all shows that had a Canadian musician perform in it.

Ans(Y,M,D): Show(S,Y,M,D,\_,N), PerformedIn(I,S), Musician(I,\_,\_,\_, 'Canadian')

2. Find the showIDs of shows where the symphony performed songs by Mozart and Beethoven.

Ans(S): SongsPerformed(S, 'Mozart', T), SongsPerformed(S, 'Beethoven', I)

3. Find the showIDs of shows where the symphony performed at least one song by Mozart or Beethoven.

Ans(S): SongsPerformed(S, 'Mozart', T)

Ans(S): SongsPerformed(S, 'Beethoven', T)

4. Find the songs that have been performed by every violinist in the orchestra. You can safely assume that if a musician is performing in a show, they will play every song in that show.

Ans(C, T): SongsPerformed(S,C,T), PerformedIn(I,S), Musician(I,\_, 'Violin',\_,\_)