

1. Retrieve the first and lastname of each competitor.

$\pi_{FName, LName} (COMPETITOR)$

2. Retrieve the first and last name of all competitors under the age of twelve who play the oboe

$\pi_{FName, LName} (\sigma_{Age < 12 \text{ AND } Instrument = 'Oboe'} (COMPETITOR))$

3. Retrieve all competitor ID numbers and the name of the music studio that they belong to.

$\pi_{CompetitorID, StudioName} (COMPETITOR \bowtie_{Teacher = TeacherID} TEACHER)$

4. Retrieve the first name and score earned by each competitor.

$\pi_{FName, Score} (COMPETITOR \bowtie_{CompetitorID = CompetitorID} PERFORMANCE)$

SEQUENCE of RELATIONAL ALGEBRA EXPRESSIONS

5. Retrieve the titles of all compositions that will performed during categories scheduled for 12:00pm

$\sigma_{CompTime = '13.00'} (CATEGORY \bowtie_{CategoryID = CategoryID} PERFORMANCE \bowtie_{MusicID = MusicID} COMPOSITION)$

6. Retrieve the titles of all compositions that have not been selected by any Performers

$\pi_{Title} (COMPOSITION - \pi_{MusicID} (PERFORMANCE))$

7. Queues and Trees: Retrieve a list of all score values that were earned by competitors belonging to the Music Mastery Studio

$\pi_{Score} (\sigma_{StudioName = 'MusicMastery'} (TEACHER \bowtie_{TeacherID = TeacherID} COMPETITOR \bowtie_{CompetitorID = CompetitorID} PERFORMANCE))$

Query Tree

