

Assignment 4 | Questions 1 - 4

1. $\pi_{\text{FName, LName}}(\text{COMPETITOR})$
2. $\pi_{\text{FName, LName}}(\sigma_{\text{Instrument} = \text{"Oboe"} \text{ AND } \text{Age} < 12}(\text{COMPETITOR}))$
3. $\pi_{\text{CompetitorID, StudioName}}(\text{COMPETITOR} \bowtie_{\text{COMPETITOR.TeacherID} = \text{TEACHER.TeacherID}} \text{TEACHER})$
4. $\pi_{\text{FName, Score}}(\text{COMPETITOR} \bowtie_{\text{COMPETITOR.CompetitorID} = \text{PERFORMANCE.CompetitorID}} \text{PERFORMANCE})$

Assignment 4 | Questions 5 - 6

5. $\text{PER_CAT} \leftarrow \text{PERFORMANCE} \bowtie_{\text{PERFORMANCE.CategoryID} = \text{CATEGORY.CategoryID}} \text{CATEGORY}$

$\text{PER_CAT_COMP} \leftarrow \text{PERFORMANCE} \bowtie_{\text{PERFORMANCE.MusicID} = \text{COMPOSITION.MusicID}} \text{COMPOSITION}$

$\pi_{\text{Title}}(\sigma_{\text{CompTime} = '13:00'}(\text{PER_CAT_COMP}))$

6. $\text{COMP} \leftarrow \pi_{\text{MusicID}, \text{Title}}(\text{COMPOSITION})$

$\text{PERF} \leftarrow \pi_{\text{MusicID}}(\text{PERFORMANCE})$

$\text{COMP_PERF_DIFF} \leftarrow \text{COMP} - \text{PERF}$

$\text{COMP_NOT_SELECTED} \leftarrow \pi_{\text{Titles}}(\text{COMP_PERF_DIFF})$

Assignment 4 | Question 7-1

7. $\text{COMPETITOR_TEACH} \leftarrow \sigma_{\text{StudioName} = \text{"Music Mastery"}}(\text{COMPETITOR} \bowtie_{\text{COMPETITOR.CompetitorID} = \text{TEACHER.TeacherID}} \text{TEACHER})$

$\text{COMETITOR_TEACH_PERF} \leftarrow \text{COMPETITOR_TEACH} \bowtie_{\text{COMPETITOR.CompetitorID} = \text{PERFORMANCE.CompetitorID}} \text{PERFORMANCE}$

$\text{COMP_NOT_SELECTED} \leftarrow \pi_{\text{Score}}(\text{COMP_TEACH_PERF})$

Assignment 4 | Question 7-2

