

## ENSF 608 – Assignment 4

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Due: Nov, 27 2023

Question 1:

$\pi_{\text{FName, LName}}(\text{competitor})$

Question 2:

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

Question 3:

$\pi_{\text{competitor.CompetitorID, teacher.StudioName}}((\text{competitor}) \bowtie_{\text{TeacherID} = \text{TeacherID}} (\text{teacher}))$

Question 4:

$\pi_{\text{competitor.FName, performance.Score}}(\text{competitor} \bowtie_{\text{CompetitorID} = \text{CompetitorID}} \text{performance})$

Question 5:

$R_1 \leftarrow \text{composition} \bowtie_{\text{musicID} = \text{musicID}(\text{performance})} \bowtie_{\text{CategoryID} = \text{CategoryID}(\text{category})}$

$R_2 \leftarrow \sigma_{\text{CompTime} = '13:00:00'}(R_1)$

$\text{Result} \leftarrow \pi_{\text{Title}}(R_2)$

Question 6:

$R_1 \leftarrow \text{composition LEFT JOIN performance}$

$R_2 \leftarrow \sigma_{\text{MusicID IS NULL}}(R_1)$

$\text{Result} \leftarrow \pi_{\text{Title}}(R_2)$

Question 7:

$\pi_{\text{Score}}(\sigma_{\text{studioName} = 'MusicMastery'}(\text{performance}) \bowtie_{\text{CompetitorID} = \text{CompetitorID}(\text{competitor})} \bowtie_{\text{TeacherID} = \text{TeacherID}}(\text{teacher}))$

