

CMSC 23500: Introduction to Databases

Homework 2
Andrew Yang
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Q1

- A1. $\pi_{pname}(\sigma_{visitsperyear < 100}(P))$
- A2. $\pi_{ssn}(\sigma_{pname == \text{"Yellowstone"}}(P \bowtie R))$
- A3. $\pi_{lname}(\sigma_{pop < 2000000}(S \bowtie P \bowtie R))$

Q2

- B1. $\pi_{lname}(\sigma_{sname == \text{"Yesterday"}}(S \bowtie W \bowtie P))$
- B2. $\pi_{sname}(\sigma_{lname == \text{"Rogers"} \wedge fname == \text{"Richard"}}(S \bowtie W \bowtie P))$
- B3. $\pi_{sname}((\sigma_{iname == \text{"flute"}}(R \bowtie I)) \bowtie T \bowtie S)$
- B4. $\pi_{lname}(\sigma_{iname == \text{"guitar"}}(R \bowtie P))$
- B5. $\pi_{fname, lname}(\sigma_{iname == \text{"tuba"} \wedge writerID == playerID}(I \bowtie \rho_{tID, playerID, iID}(R) \bowtie T \bowtie (\rho_{sID, writerID, lname, fname}(W \bowtie P))))$