

CSCI 3287
Final Project Relational Algebra
Abdur Khan

Q1.

View1 $\leftarrow \pi_{\text{PetID}, \text{Service}, \text{DateOfService}} (\text{PET} \bowtie \text{PET.PetID} = \text{MEDICAL.MedicalPetID} \text{ MEDICAL})$

Q2.

View2 $\leftarrow \pi_{\text{SUM}(\text{Cost}), \text{Service}, \text{DateOfService}} \leftarrow \text{Service}, \text{SUM}(\text{Cost}) \sigma_{\text{DateOfService} > "2020/01/01"} \text{ MEDICAL}$

Q3.

View3 $\leftarrow \pi_{\text{PetName}, \text{Status}, \text{LengthOfStay}} (\text{PET} \bowtie \text{PET.PetID} = \text{ADOPTIONAdoptionPetID} \text{ ADOPTION}) \sigma_{\text{ADOPTION.AdoptionPetID} = \text{NULL}}$

Q4.

View4 $\leftarrow \pi_{\text{PetName}, \text{OwnerName}, \text{Status}, \text{AdoptionDate}} (\text{PET} \bowtie \text{PET.PetID} = \text{Adoption.AdoptionPetID} \text{ ADOPTION})(\text{OWNER} \bowtie \text{OWNER.OwnerID} = \text{ADOPTION.AdoptionOwnerID} \text{ ADOPTION})$

Q5.

View5 $\leftarrow \pi_{\text{PetName}, \text{Age}, \text{HealthStatus}, \text{Species}, \text{ArrivalDate}} (\text{PET} \bowtie \text{PET.PetID} = \text{ADOPTIONAdoptionPetID} \text{ ADOPTION})$

Q6.

View6 $\leftarrow \pi_{\text{PetName}, \text{Species}, \text{OwnerName}} \sigma_{\text{ADOPTION.AdoptionPetID} = \text{NULL}} (\text{OWNER} \bowtie \text{OWNER.Preference} = \text{PET.Species} \text{ PET})(\text{PET} \bowtie \text{PET.PetID} = \text{ADOPTIONAdoptionPetID} \text{ ADOPTION})$

Q7.

View7 $\leftarrow \pi_{\text{Breed}, \text{COUNT}(\text{AdoptionPetID}) \rightarrow \text{AdoptionCount}} (\text{PET} \bowtie \text{PET.PetID} = \text{ADOPTIONAdoptionPetID} \text{ ADOPTION})$