

Intro to Data Science for Business – BUS 314
SQL Quiz

You are the manager of the Lexington Regional Zoo. Using the `zookeeper` schema on the MySQL practice server, create SQL queries to answer the following business questions. Copy and paste your queries from Workbench into this document. Even if your query does not run, submit what you have for partial credit. Each query is worth 4 points total.

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Part 1 – single table queries

1. In preparation for tax season, return all details about the employees of the zoo:
2. What animal species are currently held by the zoo?
3. How many animal houses does the Lex Zoo feature?
4. There has been some flooding in parts of the zoo. Which animal houses are in the western section of the zoo campus (i.e., have "w" at the end of their building location)?

Intro to Data Science for Business – BUS 314
SQL Quiz

5. You need to send out a reminder email to all zoo employees who have not yet added their cell phone number to their employee record. Generate a list of names of these employees:
6. What is the average size of an animal house at the Lex Zoo, in square feet? Label the column "area."
7. How many animals live at the Lexington Zoo, in total?
8. How old is the youngest animal at the zoo, in months?
9. You've received a food shipment but cannot read the name of the animal house it belongs to because the address label is smeared. So that you can attempt to deliver the package yourself, get the names and building locations of all animal houses beginning with an "a" and ending with "iary".

10. You need to spray for parasites and have on hand two fogger cannisters rated for zoo buildings sized 1000 square feet to 20,000 square feet. You want to tackle the largest houses first. To this end, report a list of the 2 biggest animal houses whose areas fall within the foggers' range. Do not use =, <=, or >=.
11. Which species have already gotten rfid_tags? Return your results in alphabetical order.
12. Get the average age of all mammals (lions, gorillas, beluga whales, and kangaroos) at the Lex Zoo using IN:
13. Because you need to plan ahead for the mating exchange program between the Lex Zoo and the San Diego Zoo, generate a list of how many animals there are of each sex in the zoo:
14. What is the average age of all the *male* animals in the Lex Zoo that are beyond adolescence, which is older than 2 years?

Intro to Data Science for Business – BUS 314
SQL Quiz

15. What is the average square footage of all the animals houses that have only one employee assigned to them?
16. Generate a report of the number of animals within each general building location. Only report numbers for locations with an average animal house size greater than 4000 square feet. Return the results sorted by average square footage, largest to smallest.

Part 2 – two-table queries (5 points each)

17. What is the name of the animal house staffed by Jessica Rabbit?
18. Which animal house has the most employees assigned to it?
19. How many houses contain animals *without* rfid tags?

Intro to Data Science for Business – BUS 314
SQL Quiz

20. What is the smallest animal house to be staffed by its own vet tech?

Part 3 – BONUS – three-table query

21. Get a list of building locations where there is a dedicated vet tech in the house.