

Assignment #2 - Aquarium

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Our main goal in this project is to model an aquarium as a database. We have created a list of entities and business rules which can be seen below. From now on, we will create an ER diagram using these entities and business rules. The ER diagram will be created on [lucidchart.com](https://www.lucidchart.com). From that ER diagram, we will then create a logical design for our database. Lastly, we will create the database using SQL, deciding the best programming language before starting this process. Modeling an aquarium as a database will allow us to practice the skills taught in this course. The topic is new and original, allowing us to use the knowledge we have learned in class in a completely new topic. This allows for practicing our skills in a new environment.

Business Rules:

1. The employees in the aquarium include Caretaker, veterinarians, security guard, janitor.
2. All employees have ID, first name, last name, birthday, shifts, hire date registered in the system.
3. Caretakers are assigned to tanks and look after at least one tank.
4. Caretakers feed animals according to their diets.
5. Veterinarians make periodical checkups for animals.
6. Each animal has a health record including their significant health issues and last checkup dates.
7. All animals have ID, species, diet, feeding time, gender.
8. All exhibits have ID, location, tank count, animal family type.
9. Each exhibit contains one or many tanks and each tank is part of exactly one exhibit.
10. Each tank contains one or many animals and each animal is in exactly one tank.
11. All tanks have ID, exhibit name, capacity, type, plus caretakers and veterinarians assigned.
12. Each janitor can clean one or many tanks and each tank only has one janitor.
13. Live measurements are done for water in the tanks, including temperature, ph, and clarity.
14. Each species has its own diet that the caretakers feed them.
15. The aquarium has multiple security guards.
16. Security guards have ID, shift hours and work days.