Adin Kramer
Devmountain
Assessment 5 - Data
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Modeling a Pet Adoption Database

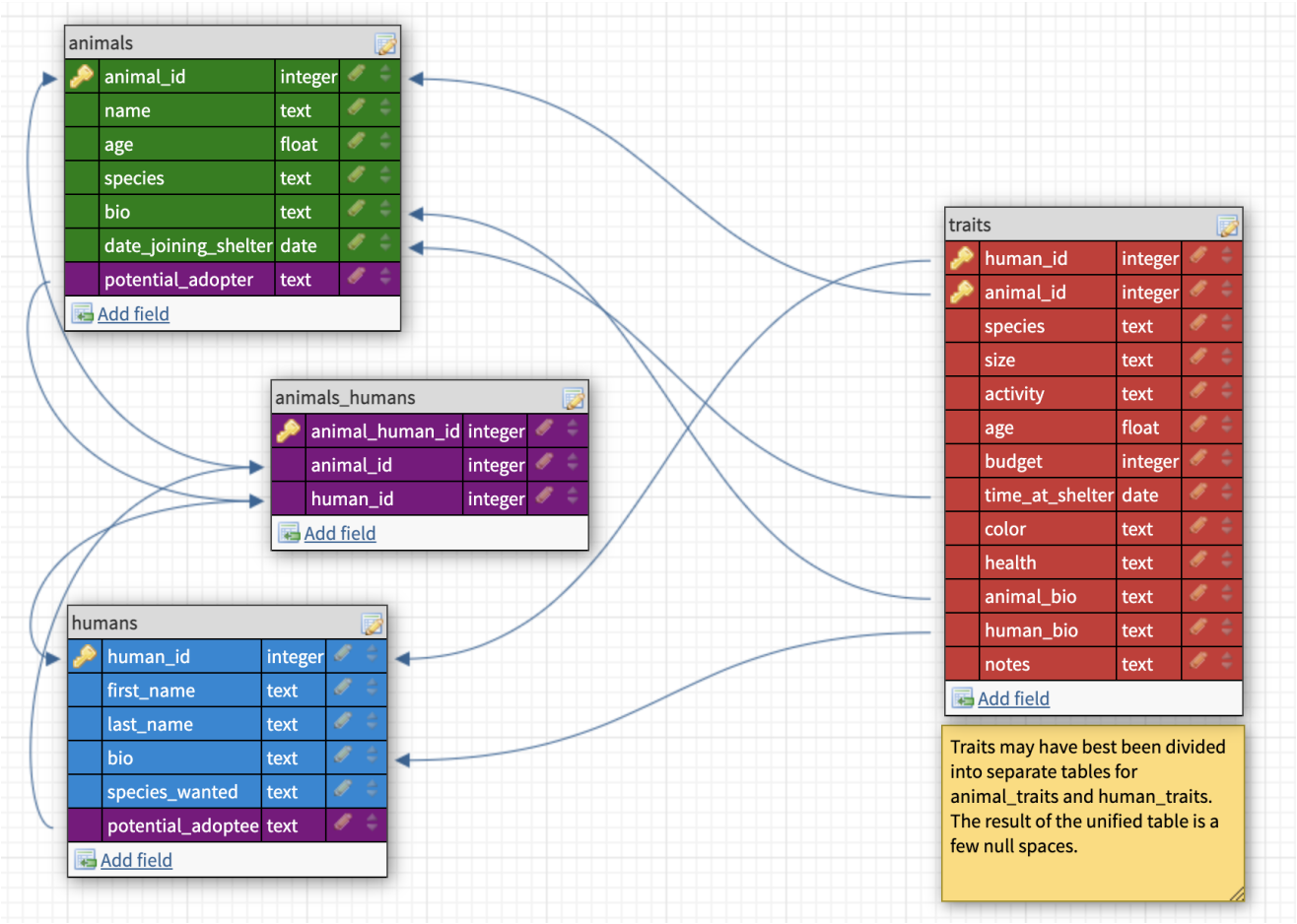
Imagine you are opening a pet adoption agency where you will rescue and care for animals and try to find them owners who are a good match for them.

Design a database with at least 4 tables for your pet adoption agency. Include any relationships between tables where you feel they are needed.

For example, you'll need an animals table. Perhaps you have an animal species table as well. The relationship between animal species and animals is one-to-many. For every one species in the species table, you could, at most, have many animals of that species in the animals table.

LINK TO PROJECT → https://dbdesigner.page.link/UAAmYewW2VFhkPdW7

CyberImage of project



➔ Brainstorming tables and data pieces (**bold** = REFERENCE)

- Animals
  - animal_id
  - animal_name
  - animal_age
  - animal_species
  - animal_bio
  - adopter
  - date_joined_shelter
- Humans
  - human_id
  - first_name
  - last_name
  - human_bio
  - species_wanted
  - adoptee
- Traits (This table describes traits of the animal and traits that the human is looking for in their adoptee. Traits include species of animal, how active animal is, color, size. So if table says 'species' that either pertains to the animal's species or the human's desired species
  - **animal_id or human_id**
  - **species**
  - subspecies (e.g. german shepherd, huskie)
  - size
  - activity
  - age
  - budget/price
  - **time_at_shelter**
  - color
  - **bio**
  - other_notes
- Animals_Humans
  - animal_human_id
  - **animal_id**
  - **human_id**

➔ Relationships

- One-to-One
  -
- One-to-Many
  - Human to Traits
  - Animal to Traits

- Many-to-Many
    - animals to humans (humans may have many potential adoptees and animals may have many potential adopters

➔ Tables (**bold** = REFERENCE)

- Animals
- Humans
- Traits
- Animals_Humans

AUTOGENERATED SQL

```
CREATE TABLE "public.animals" (
     "animal_id" serial NOT NULL,
     "name" TEXT NOT NULL,
     "age" FLOAT NOT NULL,
     "species" TEXT NOT NULL,
     "bio" TEXT NOT NULL,
     "date_joining_shelter" DATE NOT NULL,
     "potential_adopter" TEXT NOT NULL,
     CONSTRAINT "animals_pk" PRIMARY KEY ("animal_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.humans" (
     "human_id" serial NOT NULL,
     "first_name" TEXT NOT NULL,
     "last_name" TEXT NOT NULL,
     "bio" TEXT NOT NULL,
     "species_wanted" TEXT NOT NULL,
     "potential_adoptee" TEXT NOT NULL,
     CONSTRAINT "humans_pk" PRIMARY KEY ("human_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.traits" (
     "human_id" serial NOT NULL,
     "animal_id" serial NOT NULL,
     "species" TEXT NOT NULL,
```

```
      "size" TEXT NOT NULL,
      "activity" TEXT NOT NULL,
      "age" FLOAT NOT NULL,
      "budget" integer NOT NULL,
      "time_at_shelter" DATE,
      "color" TEXT NOT NULL,
      "health" TEXT NOT NULL,
      "animal_bio" TEXT,
      "human_bio" TEXT,
      "notes" TEXT NOT NULL,
      CONSTRAINT "traits_pk" PRIMARY KEY ("human_id","animal_id")
) WITH (
  OIDS=FALSE
);



CREATE TABLE "public.animals_humans" (
      "animal_human_id" serial NOT NULL,
      "animal_id" integer NOT NULL,
      "human_id" integer NOT NULL,
      CONSTRAINT "animals_humans_pk" PRIMARY KEY ("animal_human_id")
) WITH (
  OIDS=FALSE
);



ALTER TABLE "animals" ADD CONSTRAINT "animals_fk0" FOREIGN KEY
("potential_adopter") REFERENCES "animals_humans"("human_id");

ALTER TABLE "humans" ADD CONSTRAINT "humans_fk0" FOREIGN KEY
("potential_adoptee") REFERENCES "animals_humans"("human_id");

ALTER TABLE "traits" ADD CONSTRAINT "traits_fk0" FOREIGN KEY
("human_id") REFERENCES "humans"("human_id");
ALTER TABLE "traits" ADD CONSTRAINT "traits_fk1" FOREIGN KEY
("animal_id") REFERENCES "animals"("animal_id");
ALTER TABLE "traits" ADD CONSTRAINT "traits_fk2" FOREIGN KEY
("time_at_shelter") REFERENCES "animals"("date_joining_shelter");
ALTER TABLE "traits" ADD CONSTRAINT "traits_fk3" FOREIGN KEY
("animal_bio") REFERENCES "animals"("bio");
ALTER TABLE "traits" ADD CONSTRAINT "traits_fk4" FOREIGN KEY
("human_bio") REFERENCES "humans"("bio");
```

```
ALTER TABLE "animals_humans" ADD CONSTRAINT "animals_humans_fk0"
FOREIGN KEY ("animal_id") REFERENCES "animals"("animal_id");
ALTER TABLE "animals_humans" ADD CONSTRAINT "animals_humans_fk1"
FOREIGN KEY ("human_id") REFERENCES "humans"("human_id");
```