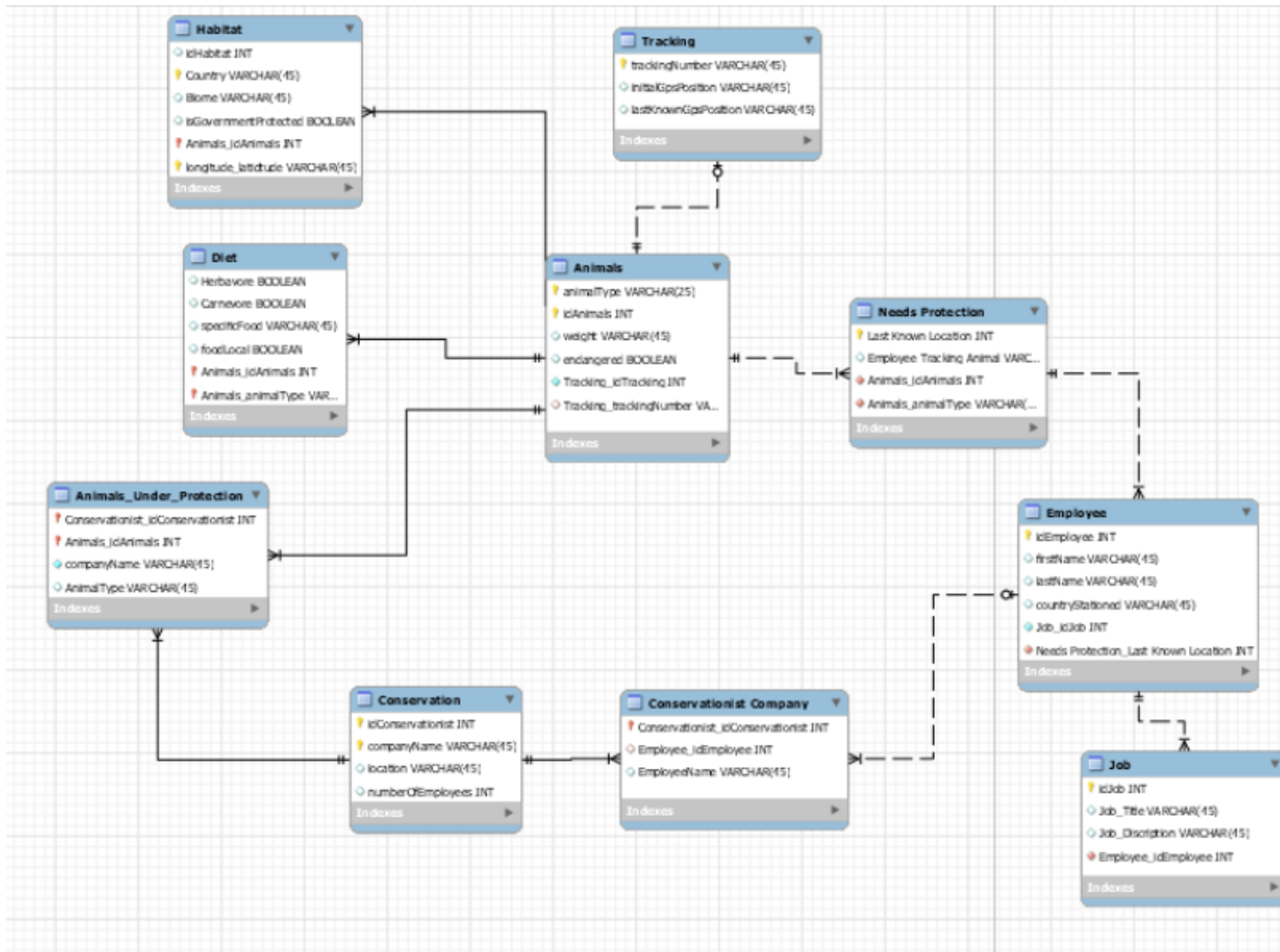


ER Diagram

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October 10, 2017

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2 Overview

For my ER Model I chose to do field biology in the form of a conservationist effort. There are a few things needed for such a model. The conservation, and the animals are the most important things. The animals have a diet, a habitat, and a tracking device with a unique ID. The conservation need employees, a company or non-profit associated with it, and a location around the world they are working from. Each employee also has a one to many jobs it performs. This can be any number of things such as local veterinarian, caretaker, ect.

3 Entity Types

Habitat(country, Biome, IsGovernmentProtected, longitude_latitude, Animals_idAnimals)

Diet(idDiet, *Herbavore*, *Carnavore*, *SpecificFood*, *foodLocal*)

Animals(animalType, idAnimals, *weight*, *endangered*, diet_idDiet, trackingID)

Tracking(trackingNumber, *initalGpsPosition*, *lastKnownGpsPosition*)

Employee(idEmployee, *firstName*, *lastName*, *countryStationed*)

Jobs(IdJob, *JobTitle*, *JobDiscription*, *EmployeeId*)

Most keys were pretty simple habitat key is a combination of physical location on the globe and a country name since that will always be unique. Diet and animal have a foreign key of animalID and animalType. Animal has a combination of ID and animal type for its keys. Tracking makes sense as a unique number since that is what it would be in the wild. Each employee would have an ID, and personal information like a first and last name, SSN that could be used as a key.

4 Relationship Types

Conservationist Company (conservationist_idConservationist, employee_idEmployee, *employeeName*)

Animals_under_protection(Conservationist_idConservationist, Animals_idAnimals, *companyName*, *AnimalT*)

5 Alpha Contributions

1. An Animal has a Diet. it can eat one to many things, and the animal has total participation.
2. An animal may live in many different locations, and a habitat might house many different animals.
3. An animal has a diet, a habitat, and may have a place in which its under protection
4. An animal might have protection of a conservation, or need protection of a conservation.
5. An employee has a job or many jobs.
6. The diet table has many values that are only boolean.
7. Since an employee can have multiple jobs, this would be multi-valued.

6 Beta Contributions

1. An Animal either has or lacks a tracking device, but any tracking device in use, has an animal attached.
2. A conservation might have one or many animals living at it, but it may not have any animals at a given time.
3. An employee has a job title, and a job description. It also has a company it works for.
- 5.A Diet needs an animal to exist.