

# CS220 - Final Project



Zoo database management application

Group: RVFBM - Clark University

# 1. Inception

\_An application which helps a zoo administrators to manage information about their employees, animals, and visitors

\_Interaction with the database is done through web browser

\_Language used: Python, SQL, and simple HTML forms for users to input data

## 2. Requirement Analysis

\_The database needs to contains:

- + Information about visitors
- + Information about employees, and the department a particular employee is working for
- + Information about animals in the zoo, and their locations and feeding calendars
- + Information about credential to login

## 2. Requirement Analysis

\_The functionalities of the application:

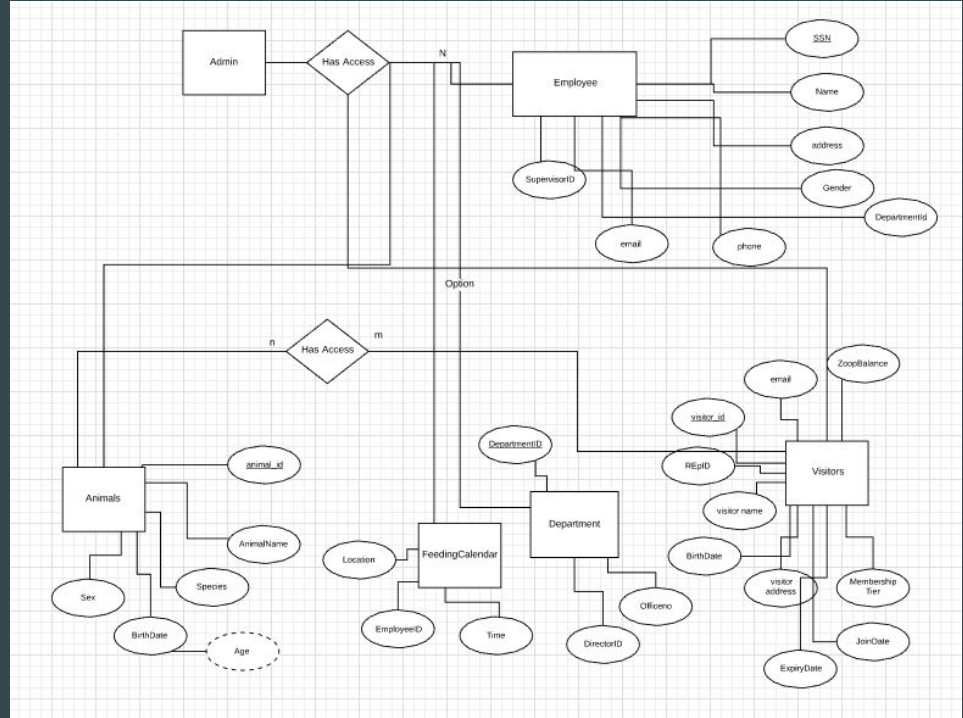
- + Update, list, delete employee information
- + Show list of animals, show foreign animals, show oldest animal, and show nearby feeding time
- + Insert visitors, update visitors, and delete visitor

\_Based on credentials that a user will have access to particular functionalities

# 3. Design

\_ES schema design:

- + [Link to ES](#) diagram
- + Then we transform it to relational schema



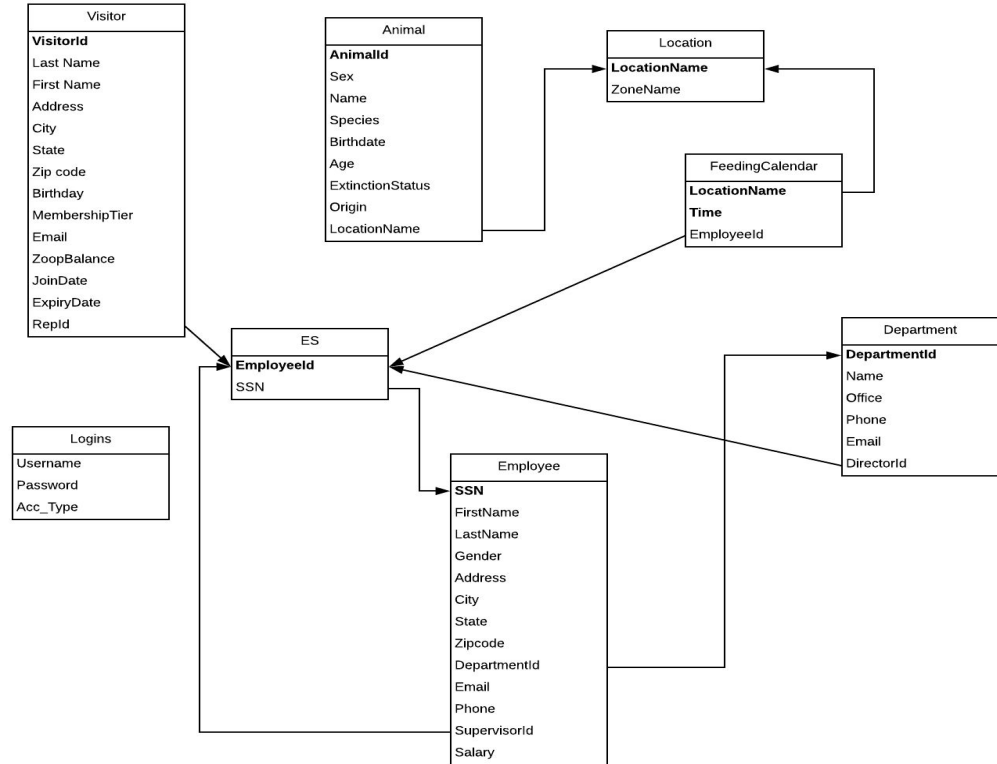
# 3. Design

\_Relational schema design:

+Link to schema

+Make sure that our

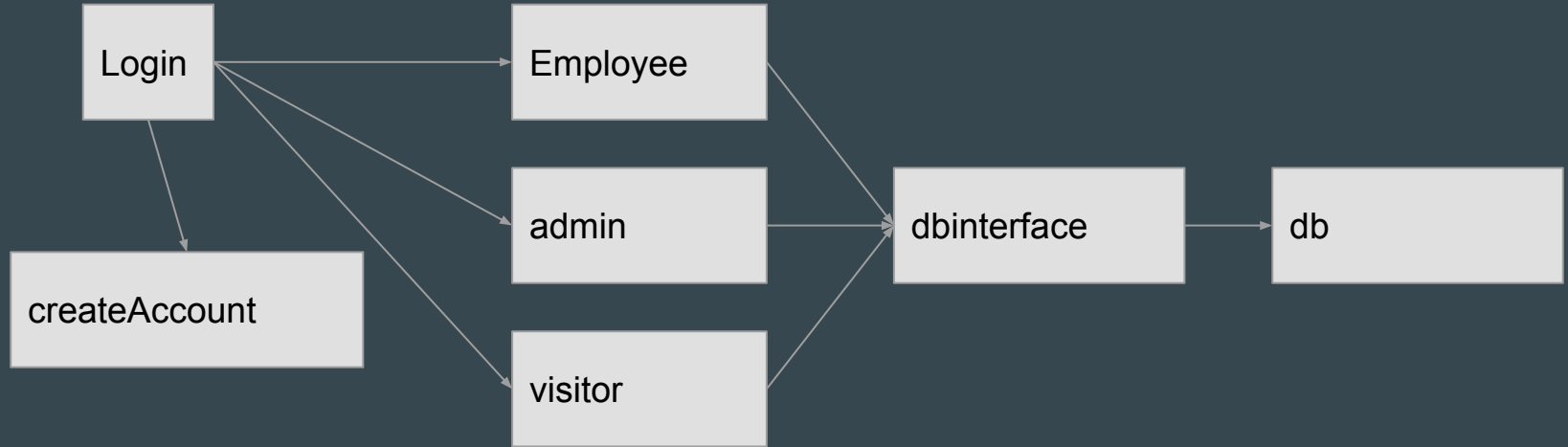
Schema meet 3NF



## 4. Demo

\_In total, we have multiple Python script and html file for the application

\_Flow:



## 5. Lesson

\_We had a hand-on experience on Python, SQL, HTML, and how to use Python to interact with database

\_An experience of design a real world database such as designing, constraints, and 3NF transformation

\_Lesson on how to combine HTML form and table to receive information from users and print out the result for them



## 5. Lesson

\_Things that we would've done differently:

- + We should've settled down on the database considering everything such as constraint, conflict, and necessary data before implementing it

\_Things that we would do if we have more time:

- + Fully test the application
- + Take security into consideration (future improvement) - session cookies and be stricter with login credentials