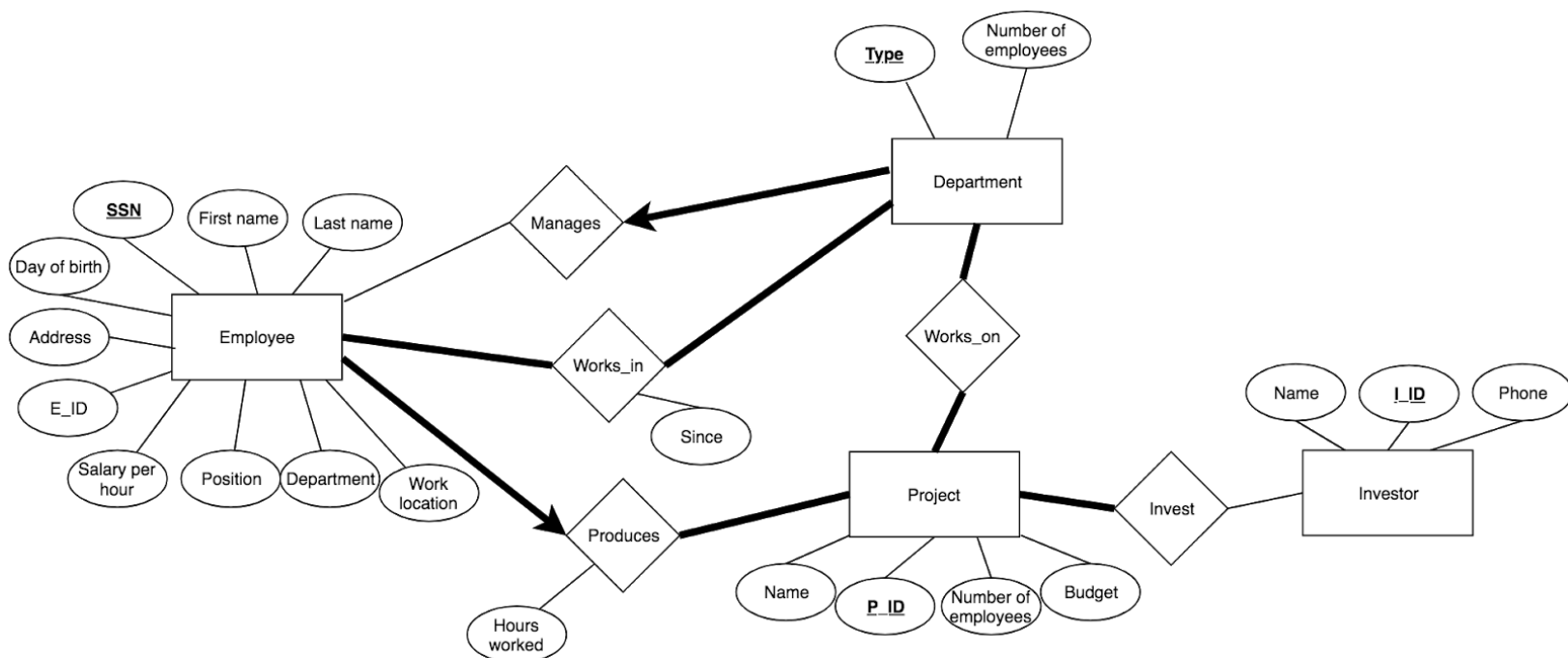CSC 675 Project Phase 1
Group members: Haiyin Huang, Tony Chen, Zhewei Zhang, Daniel Herrera
Date: 3/8/2018

Description: This is a database for a research institute.

- Every employee has a unique SSN, first name, last name, Date of birth, address, ID #, salary/hour, position, department, and location.
- Every department has a unique type, and number of employee.
- Every project has a unique ID #, name, number of employees, and budget.
- Every Investor has a unique ID #, phone #, and name.
- Each department has one & only one manager.
- Each department works on at least one project.
- Each employee produces at most one project.
- Each investor invests at least one project.
- Each employee work in only one department.
- Each project has at least one investor.

ER diagram:

Relation Schema:

Employee (<u>SSN: integer,</u> FirstName: string, LastName: string, DayOfBirth: string, Address: string, E_ID: integer, SalaryPerHour: integer, Position: string, Department: string, WorkLocation: string)

Department (<u>Type: string</u>, NumberOfEmployees: integer)

Project (<u>P_ID: integer</u>, Name: string, NumberOfEmployees: integer, Budget: integer)

Investor (<u>I_ID: integer</u>, Name: string, Phone: integer)

Manages (<u>SSN: integer</u>, <u>Type: string</u>)

Works_in (<u>SSN: integer</u>, <u>Type: string</u>, Since: string)

Produces (<u>SSN: integer</u>, <u>P_ID: integer</u>, HoursWorked: integer)

Works_on (<u>Type: string</u>, <u>P_ID: integer</u>)

Invest (<u>I_ID: integer</u>, <u>P_ID: integer</u>)

Logical Schema: