## UNIVERSITY OF OKLAHOMA

# Database Management CS/DSA-4513

## Project 2

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Section:001

Instructor: Dr.Le Gruenwald

Group Project Number: 17

**Group Members:** 

Catherine Ha

Sekar Rizky Rachmawati

Yunjie Wen

Score:

### Problem 1:

- a) Write a description for the attached ER diagram
  - Company has a name and location. Name is a unique identification. Each company can
    be owed by a parent company. A date is associated with the acquired action. Each
    parent company can have many child companies, but each child company can only have
    one parent company.
  - Reservation agreement has an ID and payment. ID is the unique identification. A date is
    recorded when companies, reservation agreements, and venues make a reservation.
    The date can be recorded when zero or more companies, zero or more reservation
    agreements, and zero or more venues, participate in making a reservation.
  - A Venue is a place to hold activities. Each venue is uniquely identified by the
    combination of name and address. A venue also has an organizer. Venue can be an
    unstaffed venue or a staffed one, or neither of them, but the venue can't be both a
    staffed and an unstaffed venue
  - The total area available is kept track of for an unstaffed venue and the budget is noted for a staffed venue.
  - Each Venue has one or more rooms. Each room has an unique number. Each room also
    has a capacity. Multiple rooms may be associated with one venue. A room has at least
    one venue associated with the room.
  - A Staff member has an id as unique identification. A staff member has a name, which
    includes a first name and last name, and phone numbers.
  - Staff members work on jobs. A job has an unique id. Each job has a start date, end date, and payment properties. A staff member can work on many jobs. A job might have many staff members that entitled to the job.
  - One staffed venue employs at least one or many staff members. A staff member must be employed by at least one staffed venue. A staffed venue may employ staff members.
  - Each staff member working on jobs can sign contracts. A contract has unique contract
    id, in addition to the date the contract was signed and the contract details. A contract can
    only be signed by one staff member that works on a job.

#### b) Relational Database

Venue(name, address, organizer)

Room(venue name, address, number, capacity)

Unstaffed\_Venue(name, address,total\_area)

Staffed\_Venue(name, address, budget)

Company(name,location)

Owned\_by(<u>child\_company\_name</u>, parent\_company\_name,date\_acquired)

Company(name, location)

Reservation\_Agreement(<u>id</u>,payment)

Reserves(id, name, name address, date)

Staff\_Member(id, first\_name, last\_name)

Staff\_phone(staff\_id, phone\_number)

Job(job\_id, start\_date,end\_date, payment)

Works on(staff id, job id)

Employs(venue name, venue address, staff id)

Contract id,date\_signed,details)

Signs(contract id, staff id)

