Katie Stevens
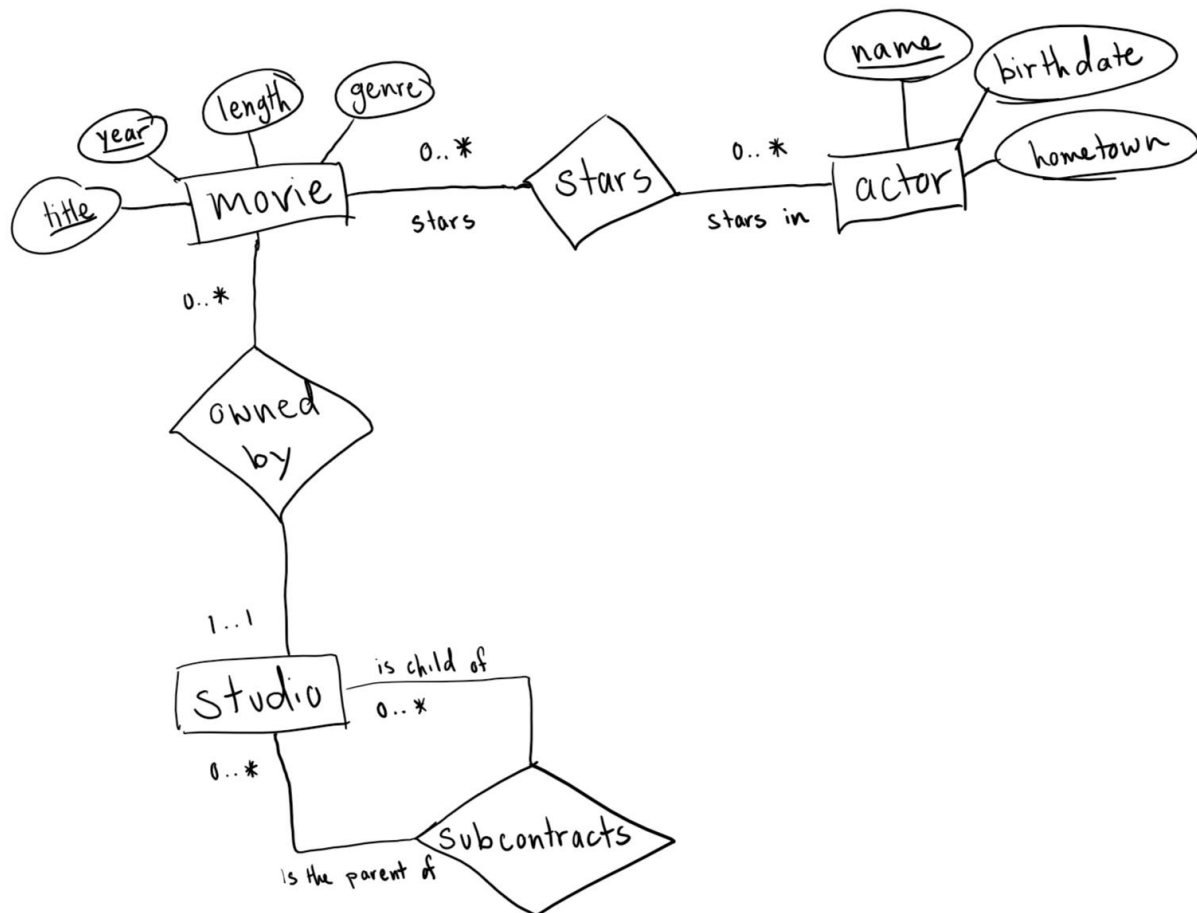
CPSC 321 01

Fall 2021

HW 4

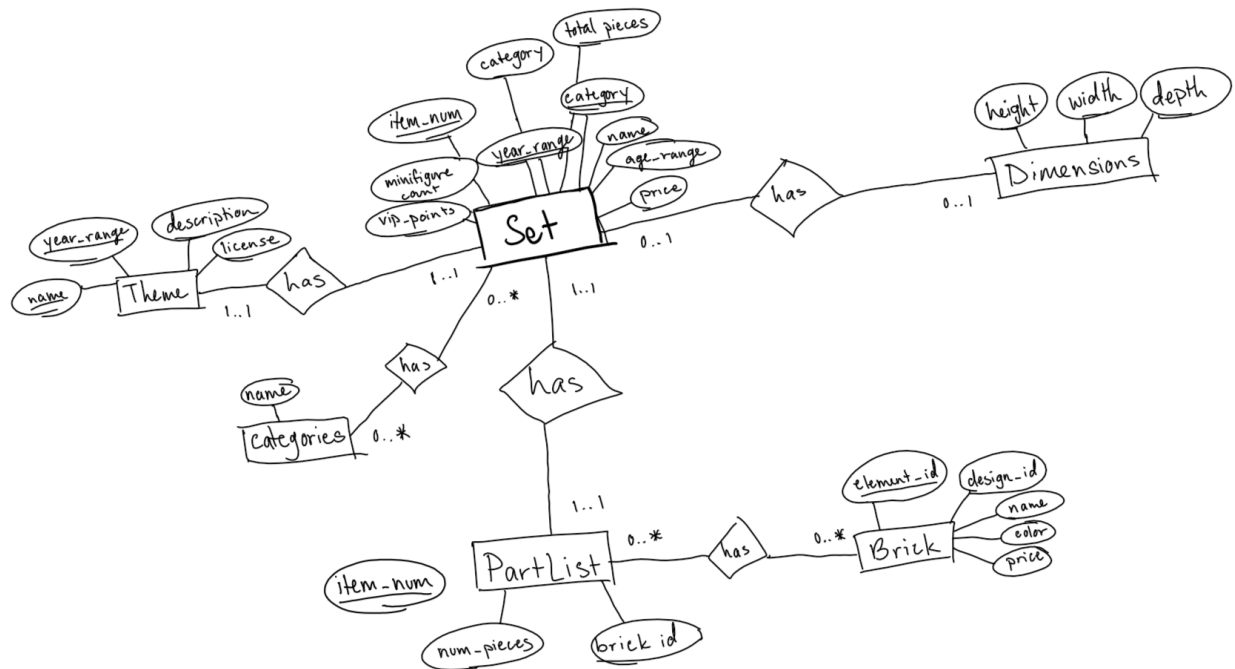**Part 1: ER Modeling**

1.

2. Translate

Bus(bus_id, type)

Route(route_id, bus_id - FK, color)

BusStop(stop_num, route_id - FK, coord)

Drives(bus_id - FK, driver_id - FK, shift)

Driver(driver_id, name)

3. Lego Set ER Diagram

4.

Set(item_num, year_range, category, name, age_range, price, minifigure_count, vip_points, total_pieces)

Category(item_num, name)

Theme(name, year_range, description, license)

Dimensions(item_num, height, width, depth)

PartList(item_num, brick_id, num_pieces)

Brick(element_id, design_id, name, color, price)

My new relational schema is pretty similar to the relational schema I made in HW-1 except I have 3 new tables, dimensions, theme, and category. I think that this new schema is more accurate because it is more specific.

5.

```
mysql> DESCRIBE course;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| crn           | int(11)       | NO   | PRI | NULL    |       |
| semester      | enum('F','S') | YES  |     | NULL    |       |
| semester_year | year(4)       | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

Part 2: Project