Zac Fotell
CPSC 312
October 12 2021

HW #4

①

Movie (title, year, length, genre) — Acts In (0..*, 1..*) — Actor (name, DOB, hometown)
Movie — Produces (0..*) — Studio (name, address) (1..*)
Studio (0..*) — Subcontracts (0..*) — ChildStudio (name, address)

②
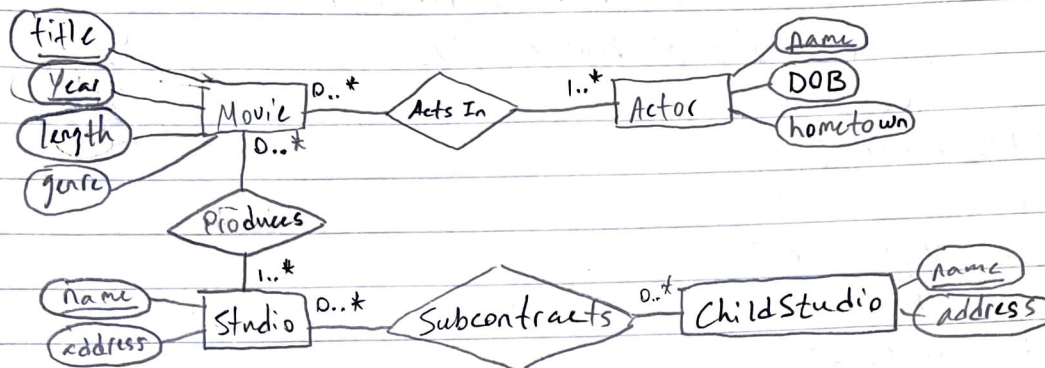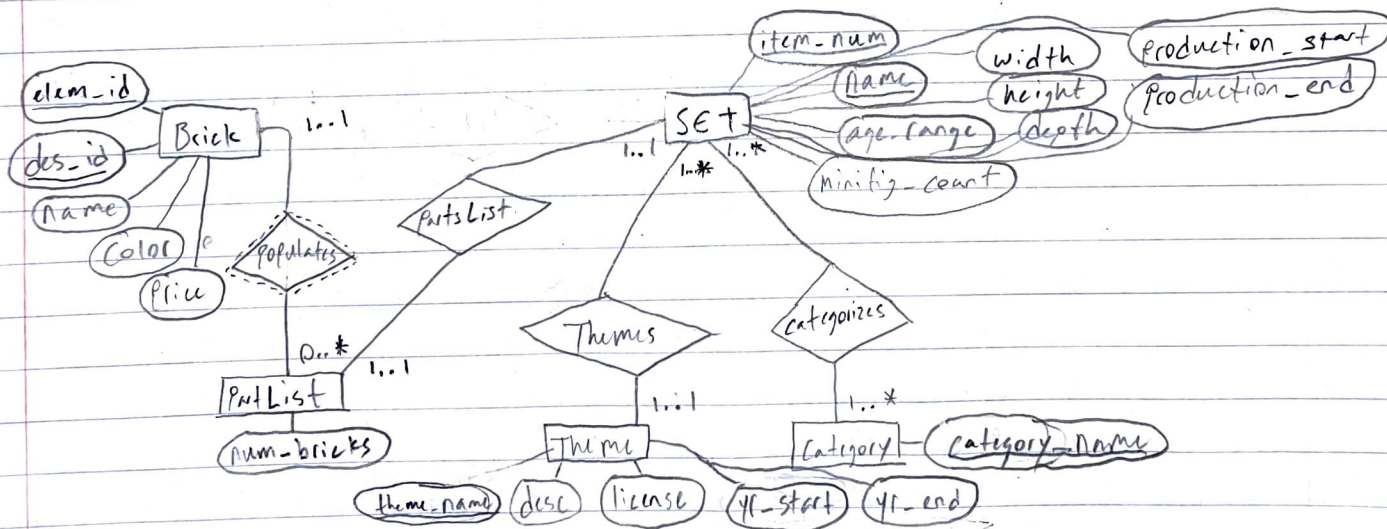
Bus (bus_id, type, shift)
Route (route_id, color, assigned ± bus)
Drives (bus_id, driver_id, shift)
Driver (driver_id, name)
BusStop (stop_num, coord, route_id)

③

Brick (elem_id, des_id, name, color, price) — Populates — PartList (num-bricks)
PartsList (1..1) — SET (item-num, name, age_range, minifig-count, width, height, depth, production_start, production_end)
SET — Themes (1..1) — Theme (theme-name, desc, license)
SET — Categorizes (1..*) — Category (category_name) (yr-start, yr-end)

④

Brick (elem_id, des_id, name, color, price)
PartList (elem_id, item_num, num-bricks)
Set (item-num, name, category-name, minifig-count, width, height, depth, production_start, production_end, theme-name)
Theme (theme-name, desc, license)
Category (category_name)   SetCategory (item-num, category-name, age_range)

This design is better because it accounts for multiple categories a set could have, while also denoting all keys properly.

⑤
```
CREATE TABLE course (
    crn : INT,
    semester : ENUM ('F', 'S'),
    semester_year : YEAR,
    PRIMARY KEY (crn)
);
```

```
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 (0.01 sec)
```

Part two