

CSC343 Worksheet 3

June 11, 2020

1. **Exercise 6.1.1:** If a query has a SELECT clause

```
1  SELECT A B
2
```

how do we know whether A and B are two different attributes or B is an alias of A ?

2. **Exercise 6.1.2:** Write the following queries, based on our running movie database example in SQL

```
1  Movies(title, year, length, genre, studioName, producerC\#)
2  StarsIn(movieTitle, movieYear, starName)
3  MovieStar(name, address, gender, birthdate)
4  MovieExec(name, address, cert\#, netWorth)
5  Studio(name, address, presC\#)
6
```

- a) Find the address of MGM studios.
 - b) Find sandra Bullock's birthdate
 - c) Find all the stars that appeared either in a movie made in 1980 or a movie with "Love" in the title
 - d) Find all executives worth at least \$10,000,000
 - e) Find all the stars who either are male or live in malibu (have string *Malibu* as a part of their address)
3. **Exercise 6.1.3:** Write the following queries in SQL. They refer to the database schema of Exercise 2.4.1:

```
1  Product(maker, model type)
2  PC(model, speed, ram, hd, price)
3  Laptop(model, speed, ram, hd, screen, price)
4  Printer(model, color, type, price)
5
```

Show the result of your queries using the data from Exercise 2.4.1

- a) Find the model number, speed and hard-disk size for all PC's whose price is under \$1000
 - b) Do the same as (a), but rename the **speed** column **gigahertz** and the **hd** column **gigabytes**.
 - c) Find the manufacturerers of printers
 - d) Find the model number, memory size, and screen size for laptops costing more than \$1500.
 - e) Find all the tuples in the **Printer** relation for color printers. Remember that **color** is a boolean-valued attribute.
 - f) Find the model nuber and hard-disk size for those PC's that have a speed of 3.2 and a price less than \$2000.
4. **Exercise 6.1.4:** Write the following queries based on the database schema of Exercise 2.4.3:

```
1  Classes(class, type, country, numGuns, bore, displacement)
2  Ships(name, class, launched)
3  Battles(name, date)
4  Outcomes(ship, battle, result)
5
```

and show the result of your query on the data of Exercise 2.4.3

- a) Find the class name and country for all classes with at least 10 guns.
- b) Find the names of all ships launched prior to 1918, but call the resulting column **shipName**

Reference

- 1) Stanford: CS145 - Introduction to Databases, link