

CSE 344 Section 2 Worksheet

1. Joins Examples

Given tables created with these commands:

```
CREATE TABLE A (a int);
CREATE TABLE B (b int);
INSERT INTO A VALUES (1), (2), (3), (4);
INSERT INTO B VALUES (3), (4), (5), (6);
```

What's the output for each of the following:

```
SELECT *
FROM A INNER JOIN B
ON A.a=B.b;
```

```
SELECT *
FROM A RIGHT OUTER JOIN B
ON A.a=B.b;
```

```
SELECT *
FROM A LEFT OUTER JOIN B
ON A.a=B.b;
```

```
SELECT *
FROM A FULL OUTER JOIN B
ON A.a=B.b;
```

```
SELECT * FROM A INNER JOIN B; (Challenging question!)
```

2. Self Join

Consider the following over simplified Employee table:

```
CREATE TABLE Employees (id int, bossId int);
```

Suppose all employees have an id which is not null. How would we find all distinct pairs of employees with the same boss?

3. 3-Valued Logic

Given the table created with these commands:

```
CREATE TABLE A (a int, b int);  
INSERT INTO A VALUES (1, 1), (2, 10), (3, NULL);
```

What is the output for each of the following:

```
SELECT A.a FROM A  
WHERE A.b < 5;
```

```
SELECT A.a FROM A  
WHERE A.b >= 5;
```

```
SELECT A.a FROM A  
WHERE A.b != 1 AND  
A.b != 10;
```

```
SELECT A.a FROM A  
WHERE A.b < 5 OR  
A.b IS NULL;
```

4. SQL Practice

```
CREATE TABLE Movies (id int PRIMARY KEY, name varchar(30),  
                      budget int, gross int, rating int, year int);  
CREATE TABLE Actors (id int PRIMARY KEY, name varchar(30), age int);  
CREATE TABLE ActsIn (mid int REFERENCES Movies(id),  
                      aid int REFERENCES Actors(id));
```

What is the number of movies, and the average rating of all movies that the actor "Patrick Stewart" has appeared in?

What is the minimum age of an actor who has appeared in a movie where the gross of the movie has been over \$1,000,000,000?

What is the name and budget of each movie released in 2017 whose oldest actor is less than 30?