

# CSE 414 Section 2 7

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

## 2. Self Join

Consider the following over simplified Employee table:

```
CREATE TABLE Employees (id int, bossOf 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. SQL Practice

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

What is the number of movies, and the average rating of all movie 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 total budget of all movies released in year 2017, where the oldest actor is less than 30?