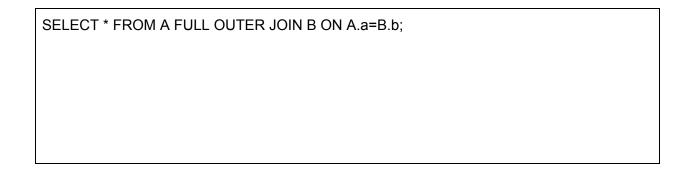# CSE 414 Section 2

0. 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;
```

1. 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),
        PRIMARY KEY (mid, aid)
);
```

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 the movies released in each year, where the oldest actor is less than 30?

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 the id of all
employees who are the boss of at least one other employee?

What do we select? (select * vs select table alias.col name)

Consider the case with employees (1, NULL), (2, NULL), (5, 1), (5, 2), (5, NULL), (3, NULL).
How many employees is id=5 the boss of?

3. Notes:

SUM()	MIN()	FW**G**HOS	HAVING [condition]
MAX()	AVG()	ORDER BY [colname]	
COUNT()		GROUP BY [colname]	