CSE 414 Section 2

## 0. Joins Examples

Given tables created with these commands:

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| 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:

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| 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

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| 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)); |

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| 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 lessthan 30? |

## 2. Self Join

Consider the following over simplified Employee table

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| CREATE TABLE Employees (id int,bossOf int); |

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| 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)

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| 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:

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