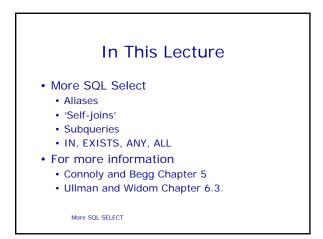
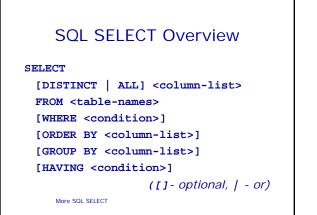
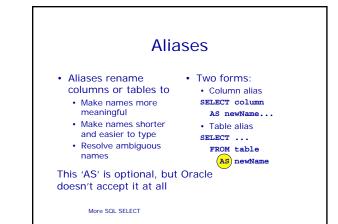
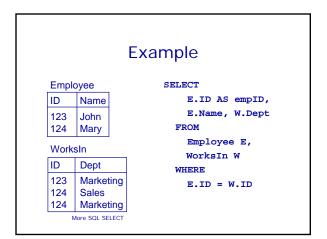


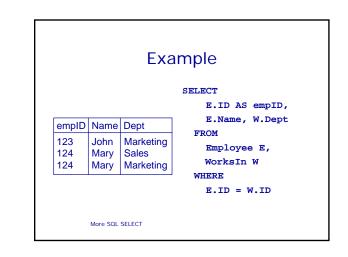
Database Systems Lecture 8 Natasha Alechina

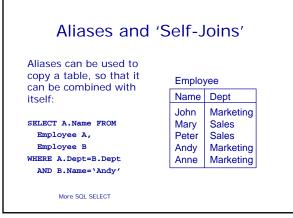












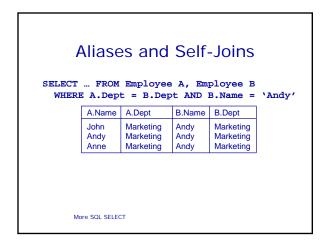


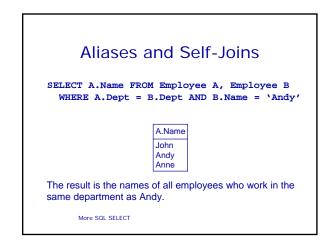
SELECT		es and		-Joins
	A.Name	A.Dept	B.Name	B.Dept
	John	Marketing	John	Marketing
	Mary	Sales	John	Marketing
	Peter	Sales	John	Marketing
	Andy	Marketing	John	Marketing
	Anne	Marketing	John	Marketing
	John	Marketing	Mary	Sales
	Mary	Sales	Mary	Sales
	Peter	Sales	Mary	Sales
	Andy	Daitating	Mary	Sales
	r An		· ·	Sales

Aliases and Self-Joins

SELECT ... FROM Employee A, Employee B WHERE A.Dept = B.Dept

A.Name	A.Dept	B.Name	B.Dept
John	Marketing	John	Marketing
Andy	Marketing	John	Marketing
Anne	Marketing	John	Marketing
Mary	Sales	Mary	Sales
Peter	Sales	Mary	Sales
Mary	Sales	Peter	Sales
Peter	Sales	Peter	Sales
John	Marketing	Andy	Marketing
Andy	Doitod	Andy	Marketing
A			Marketing





Subqueries

- A **SELECT** statement can be nested inside another query to form a subquery
- · The results of the subquery are passed back to the containing query

•E.g. get the names of people who are in Andy's department: SELECT Name

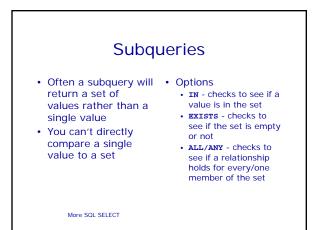
FROM Employee WHERE Dept = (SELECT Dept FROM Employee WHERE Name='Andy')

More SOL SELECT

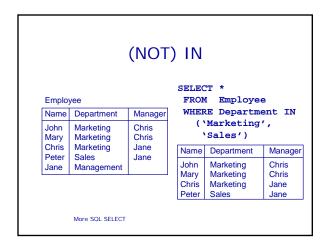
Subqueries SELECT Name FROM Employee WHERE Dept = (SELECT Dept FROM Employee WHERE Name='Andy')

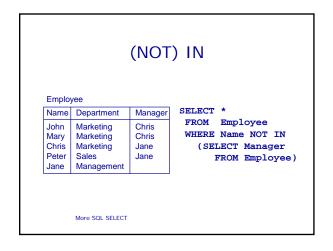
More SOL SELECT

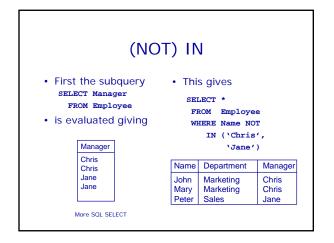
- First the subquery is evaluated, returning the value 'Marketing' • This result is passed
- to the main query
- SELECT Name FROM Employee WHERE Dept = 'Marketing'

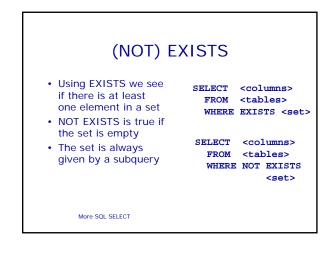


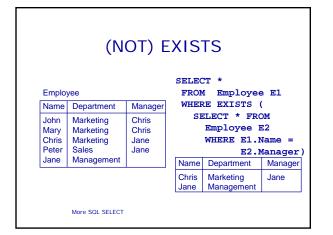


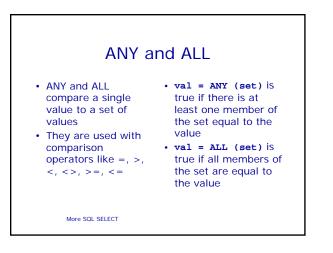


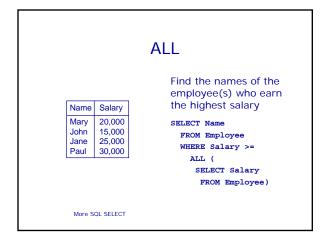


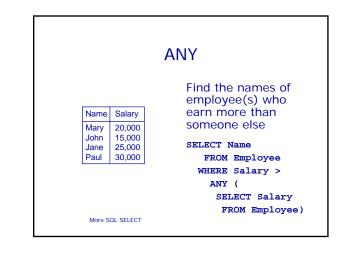












Word Searches

- Word Searches
 - Commonly used for searching product catalogues etc.
 Want to be able to use word stemping
 - use word stemming for flexible searching
- For example: given a database of books,
 Searching for
 - "automata" should return everything with "automata" somewhere in the title

More SQL SELECT

Word Searches

To search we can use queries like

SELECT * FROM Book

WHERE Title LIKE '%Automata%';

which returns all titles which have a substring Automata. % stands for `any other string'.

More SQL SELECT

Next Lecture 4 March! • No lectures the week of the 22nd Feb • Yet more SQL • ORDER BY • Aggregate functions • GROUP BY and HAVING • UNION etc. • For more information • Connoly and Begg Chapter 5 • Ullman and Widom Chapter 6.4

More SQL SELECT