

University of Central Florida

CGS 2545

Database Concepts

DEPARTMENT OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE
COMPUTER SCIENCE DIVISION

Using Joins

- The SQL **Joins** clause is used
 - to combine records from two or more tables in a database.
 - A JOIN is a means for combining fields from two tables by using values common to each

Using Joins

- Consider the following two tables

Table 1 – CUSTOMERS Table

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

Table 2 – ORDERS Table

OID	DATE	CUSTOMER_ID	AMOUNT
102	2009-10-08 00:00:00	3	3000
100	2009-10-08 00:00:00	3	1500
101	2009-11-20 00:00:00	2	1560
103	2008-05-20 00:00:00	4	2060

Using Joins

- Join these two tables in our SELECT statement as shown below

```
SQL> SELECT ID, NAME, AGE, AMOUNT  
       FROM CUSTOMERS, ORDERS  
       WHERE CUSTOMERS.ID = ORDERS.CUSTOMER_ID;
```

ID	NAME	AGE	AMOUNT
3	kaushik	23	3000
3	kaushik	23	1500
2	Khilan	25	1560
4	Chaitali	25	2060

Using Joins

- Here, it is noticeable that the join is performed in the WHERE clause.
- Several operators can be used to join tables, such as =, <, >, <>, <=, >=, !=, BETWEEN, LIKE, and NOT;
- they can all be used to join tables.
- However, the most common operator is the equal to symbol.

Using Joins

- There are different types of joins available in SQL
 - INNER JOIN: returns rows when there is a match in both tables
 - LEFT JOIN: returns all rows from the left table, even if there are no matches in the right table
 - RIGHT JOIN: returns all rows from the right table, even if there are no matches in the left table

Using Joins

- There are different types of joins available in SQL
 - FULL JOIN: returns rows when there is a match in one of the tables.
 - SELF JOIN: is used to join a table to itself as if the table were two tables, temporarily renaming at least one table in the SQL statement.
 - CARTESIAN JOIN: returns the Cartesian product of the sets of records from the two or more joined tables.