

Slide 1: Unions

Unions

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Slide 2: Learning Objectives

Learning Objectives

Describe what a UNION is and how it works

Discuss the rules for using UNIONS

Write correct syntax for a UNION statement

Describe common situations in which
UNIONS are useful

Slide 3: What is a Union

What is a Union?

The UNION operator is used to combine the result-set of two or more SELECT statements

Each SELECT statement within UNION must have the same number of columns

Columns must have similar data types

The columns in each SELECT statement must be in the same order

Slide 4: Union Example

Union Example

Query 1: Which German cities have customers

```
SELECT column_name(s) FROM  
table1  
  
UNION  
  
SELECT column_name(s) FROM  
table2;
```

Query 2: Which German cities have suppliers

```
SELECT City, Country FROM  
Customers  
  
WHERE Country='Germany'  
  
UNION  
  
SELECT City, Country FROM  
Suppliers  
  
WHERE Country='Germany'  
  
ORDER BY City;
```

Slide 5: Union Example

Union Example

The UNION operator selects only distinct values by default

Use **UNION ALL** to allow duplicate values

```
SELECT column_name(s) FROM table1  
UNION ALL  
SELECT column_name(s) FROM table2;
```

Slide 6: Avoiding Duplicates in a Union

Avoiding Duplicates in a Union

You can avoid duplicates using **UNION ALL** and still run much faster than **UNION DISTINCT** (which is the same as **UNION**):

```
SELECT * FROM mytable  
WHERE a=X  
UNION ALL  
SELECT * FROM mytable  
WHERE b=Y AND a!=X
```

The key is the **AND a!=X**