Scope

SELECT [ALL/DISTINCT] column_list
FROM table_list
[WHERE conditional expression]
[GROUP BY group_by_column_list]
[HAVING conditional expression]
[ORDER BY order_by_column_list]

ORDER BY Clause Syntax

- The ORDER BY clause presents data in sorted order

- Ascending order is default

- Use DESC keyword to override column default

ORDER BY Clause Syntax
Sort Sequence

- In ascending order, values will be listed in the following sequence:
  - Numeric values
  - Character values
  - NULL values

- In descending order, sequence is reversed

ORDER BY Example

```
select lastname, firstname, city, state
from customers
where state = 'FL' OR state = 'CA'
order by city;
```

(Execute)   (Load Script)   (Save Script)   (Cancel)

LASTNAME	FIRSTNAME	CITY	ST
PEREZ	JORGE	BURBANK	CA
DAUM	MICHELL	BURBANK	CA
NGUYEN	NICHOLAS	CLERMONT	FL
MORALES	BONITA	EASTPOINT	FL
SCHELL	STEVE	MIAMI	FL
THOMPSON	RYAN	SANTA MONICA	CA
SMITH	LEILA	TALLAHASSEE	FL

7 rows selected.

ascending

ORDER BY Example


```
SELECT lastname, firstname, city, state
  FROM customers
  WHERE state = 'FL'  OR state = 'CA'
  ORDER BY state DESC, city;
```

[Execute] [Load Script] [Save Script] [Cancel]

LASTNAME	FIRSTNAME	CITY	STATE
NGUYEN	NICHOLAS	CLERMONT	FL
MORALES	BONITA	EASTPOINT	FL
SCHELL	STEVE	MIAMI	FL
SMITH	LEILA	TALLAHASSEE	FL
PEREZ	JORGE	BURBANK	CA
DAUM	MICHELL	BURBANK	CA
THOMPSON	RYAN	SANTA MONICA	CA

descending

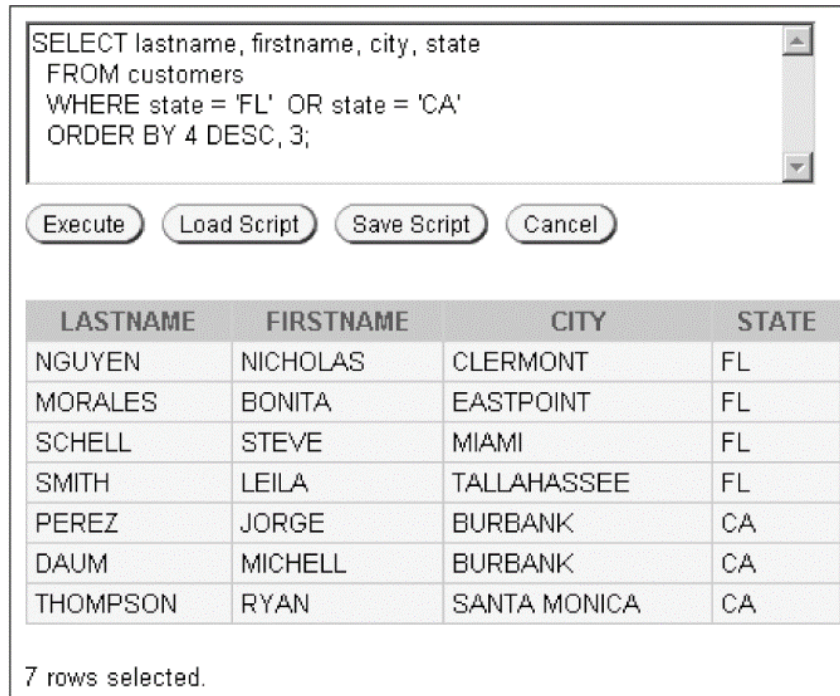*ascending*

7 rows selected.

FIGURE 8-37   Sorting on the State and City columns

ORDER BY Can Reference Column Position


```
SELECT lastname, firstname, city, state
  FROM customers
  WHERE state = 'FL' OR state = 'CA'
  ORDER BY 4 DESC, 3;
```

LASTNAME	FIRSTNAME	CITY	STATE
NGUYEN	NICHOLAS	CLERMONT	FL
MORALES	BONITA	EASTPOINT	FL
SCHELL	STEVE	MIAMI	FL
SMITH	LEILA	TALLAHASSEE	FL
PEREZ	JORGE	BURBANK	CA
DAUM	MICHELL	BURBANK	CA
THOMPSON	RYAN	SANTA MONICA	CA

7 rows selected.

FIGURE 8-38 Referencing column positions of sort columns in the ORDER BY clause

4th column: state
3rd column: city

WAYNE STATE
Mike Ilitch School of Business

Wrap-up

- ORDER BY clause to sort data
- Ascending/descending order
- Reference column position