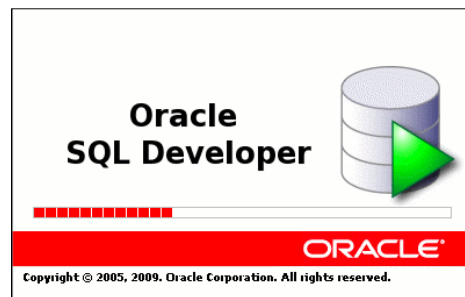


# Introduction to Oracle: SQL



## Preliminaries

- Data is a valuable asset
- All organizations need to store, maintain, retrieve and present data

## Issue25 Tables

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- We'll use for additional practice
- Handout

3

## Organizing Data

---

- Entity
- data hierarchy
  - byte
  - field
  - record
  - table
  - database

4

## Primary and Foreign Keys

- How can we connect (join) related data that has been stored in separate tables?
- Primary Key
  - a field (or a combination of two or more fields) that uniquely identifies each record in a table
- Foreign Key
  - a field whose values must match the primary key of another table

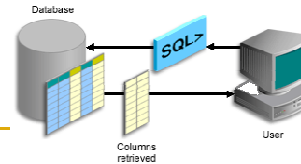
5

## CISDEV Server

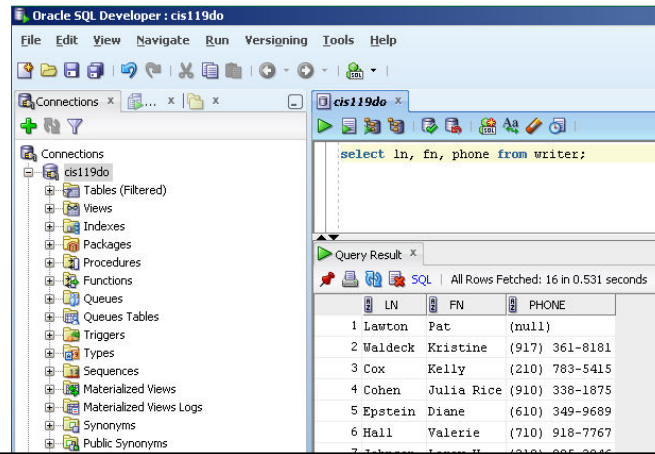
- Web Server
  - <http://cisdev.sc.maricopa.edu>
  - SQL Developer installation instructions
  - online documentation
- Oracle Database Server
  - Oracle 10g Express Edition database server software
  - Oracle Listener process
  - cis119do database
    - you each have own account (schema) in this database
    - you'll connect using SQL Developer over the Internet

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# SQL Developer

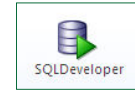


- Client-side software used to interact with an Oracle database via SQL statements



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# SQL Developer

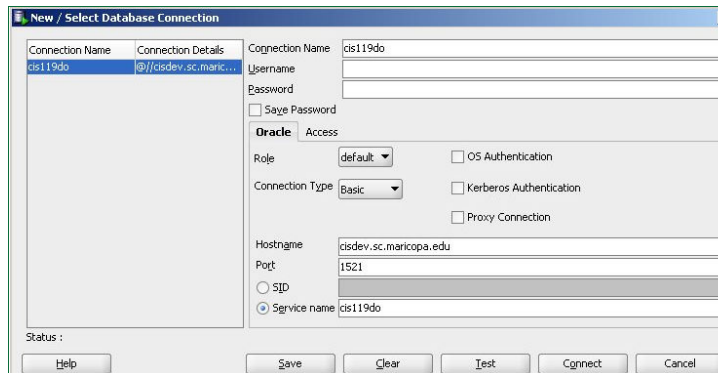


- Two ways to access SQL Developer
  - Download and install on your Windows computer
    - instructions at <http://cisdev.sc.maricopa.edu>
  - mySCC (<https://myscc.scottsdalecc.edu>)
    - browser-based virtual workstation
    - access to files on your H: drive
    - launch applications
      - CIS-BPC > SQL Developer



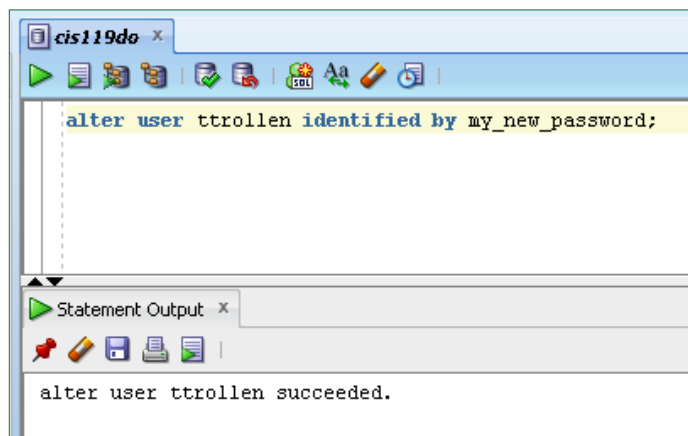
## Logging in with SQL Developer

- cis119do database
  - you each have own account (schema)
    - username same as your SCC network username
    - default password is artichoke
  - connection settings



## Changing Your Password

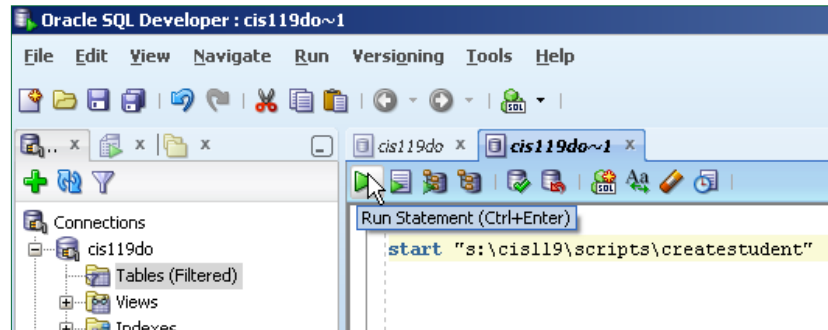
- ALTER USER statement
  - we'll study it formally in Chapter 11
  - notice the semicolon ; at the end of the statement



10

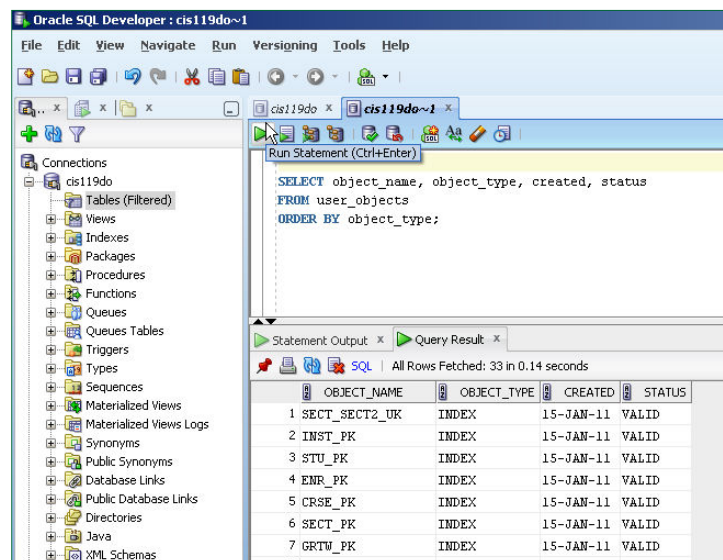
## Creating Student Schema Objects

- Our textbook uses a multi-table schema
  - handout
  - you'll run a script to create the tables and other objects in your own schema
    - these creation scripts are in S:\CIS119\scripts



11

## Verifying the Student Schema Objects Were Created



12

## Creating the Issue25 Objects

- Run the script

```
start "s:\faculty\trollen\cis119\scripts\createissue25.sql"
```

- Verify the objects

```
SELECT * FROM writer;
```

```
SELECT * FROM article;
```

```
SELECT * FROM type;
```

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## Run Statement vs. Run Script

The image shows three screenshots of the SQL Developer interface, illustrating the difference between running a single statement and running a script.

**Left Screenshot:** Shows the 'Run Statement (Ctrl+Enter)' button being clicked. The SQL editor contains three separate SQL statements: `SELECT * FROM writer;`, `SELECT * FROM article;`, and `SELECT * FROM type;`. The 'Query Result' window shows the output of the first statement, a table with 11 rows of 'TYPE' data.

TYPE	DESCR
1 ADV	Advertising
2 BUS	Business
3 EXP	Expose
4 FMK	Financial Market
5 INT	International
6 ITV	Interview
7 LAW	Law
8 MON	Monetary
9 POL	Political
10 STA	Statistical
11 TEC	Technology

**Middle Screenshot:** Shows the 'Run Script (F5)' button being clicked. The SQL editor contains the same three statements. The 'Script Output' window shows the output of the first statement, a table with 30 rows of 'TYPE' data.

TYPE	DESCR
22	You and the Pens
23	Toyota and GM Jo
24	Advertising Over
25	Law Over the Pas
26	The Economy Unde
27	New York City Fi
28	Bush Finally Win
29	Dot-Coms Go Bust
30	\$100 Billion AOL

**Right Screenshot:** Shows the 'Run Script' button being clicked. The SQL editor contains the same three statements. The 'Script Output' window shows the output of the first statement, a table with 16 rows of 'TYPE' data. Below the table, an error message is displayed: "Error starting at line 2 in command: SELECT \* FROM article; Error at Command Line:2 Column:21 Error report: SQL Error: ORA-00933: SQL command not properly ended 00933. 00000 - "SQL command not properly ended" \*Cause:"