

Introduction to Oracle: SQL



Preliminaries

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

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Issue25 Tables

- We'll use for additional practice
- Handout

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Organizing Data

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

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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

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CISDEV Server

- Database server
 - Oracle 10g Express Edition database server software
 - Oracle listener process
 - cis119do database
 - you each have own account in this database
 - you'll connect using SQL*Plus and the Internet
- web server
 - <http://cisdev.sc.maricopa.edu>
 - online documentation
 - installation instructions
 - TNSNAMES.ORA file

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SQL*Plus



- Client-side software used to interact with an Oracle database via SQL statements
- Not a GUI!
- Off-campus installation
 - check out a CD
 - instructions at <http://cisdev.sc.maricopa.edu>
- Launching
 - Start | Programs | Oracle – OraClient10g_home1 | Application Development | SQL*Plus

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Logging On with SQL*Plus

The screenshot shows a 'Log On' dialog box with three input fields: 'User Name:' containing 'ttrollen', 'Password:' containing '*****', and 'Host String:' containing 'cis119do'. There are 'OK' and 'Cancel' buttons at the bottom.

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Changing Your Password

- PASSWORD command

```
Oracle SQL*Plus
File Edit Search Options Help
SQL> password
Changing password for TTROLLEN
Old password: *****
New password: ****
Retype new password: ****
SQL> |
```

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Creating the Student Schema Objects

- Our textbook uses a multi-table Student database
 - handout
 - you'll run a script to create the tables (and other objects) in your own schema
 - scripts are in S\CIS119\scripts
- SQL*Plus can run a script
- Verify the objects were created

```
SQL> @s:\cis119\scripts\createstudent.sql
```

```
SQL> SELECT * FROM USER_OBJECTS;
```

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Creating the Issue25 Objects

- Run the script

```
SQL>@S:\Faculty\Trollen\CIS119\Scripts\createissue25.sql
```

- Verify the objects

```
SQL> SELECT *  
2 FROM writer;
```

```
SQL> SELECT *  
2 FROM article;
```

```
SQL> SELECT *  
2 FROM type;
```

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Editing a SQL Statement

- SQL buffer
 - contains the most recently typed SQL statement
 - can list it with L
 - can re-execute it with /

```
SQL> l
```

```
SQL> /
```

- Edit command

- launches the default text editor

```
SQL> edit
```

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