Module 3
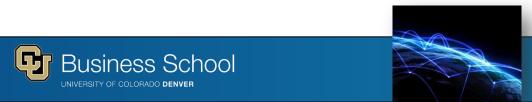# Relational Data Model and CREATE TABLE Statement

Lesson 3: Basics of the SQL CREATE TABLE Statement

Lesson Objectives

- Write CREATE TABLE statements with column specifications including data types
- Read CREATE TABLE statements to see columns and associated data types

CREATE TABLE Syntax

- CREATE TABLE <table-name> (<column-list> [<constraint-list>])
- Column list with data types and optional and inline constraints
- Optional external constraint list
  – CONSTRAINT [ConstraintName] <Constraint-Spec>
  – Primary key
  – Foreign key
  – Unique
  – Check

CREATE TABLE Statement Example

```
CREATE TABLE Student
(   StdNo     CHAR(11),
    StdFirstNameVARCHAR(50),
    StdLastName VARCHAR(50),
    StdCity     VARCHAR(50),
  StdState      CHAR(2),
    StdZip   CHAR(10),
    StdMajor        CHAR(6),
  StdClass        CHAR(6),
    StdGPA    DECIMAL(3,2));
```

Common SQL Data Types

- CHAR(L)
- VARCHAR(L)
- INTEGER
- FLOAT(P)
- DECIMAL(W, R)
- Date/Time: DATE, TIME, TIMESTAMP
- BOOLEAN

Summary

- Important definitional statement
- Data types not always portable
- Somewhat tedious specification although relatively portable
- Other interfaces for more productivity