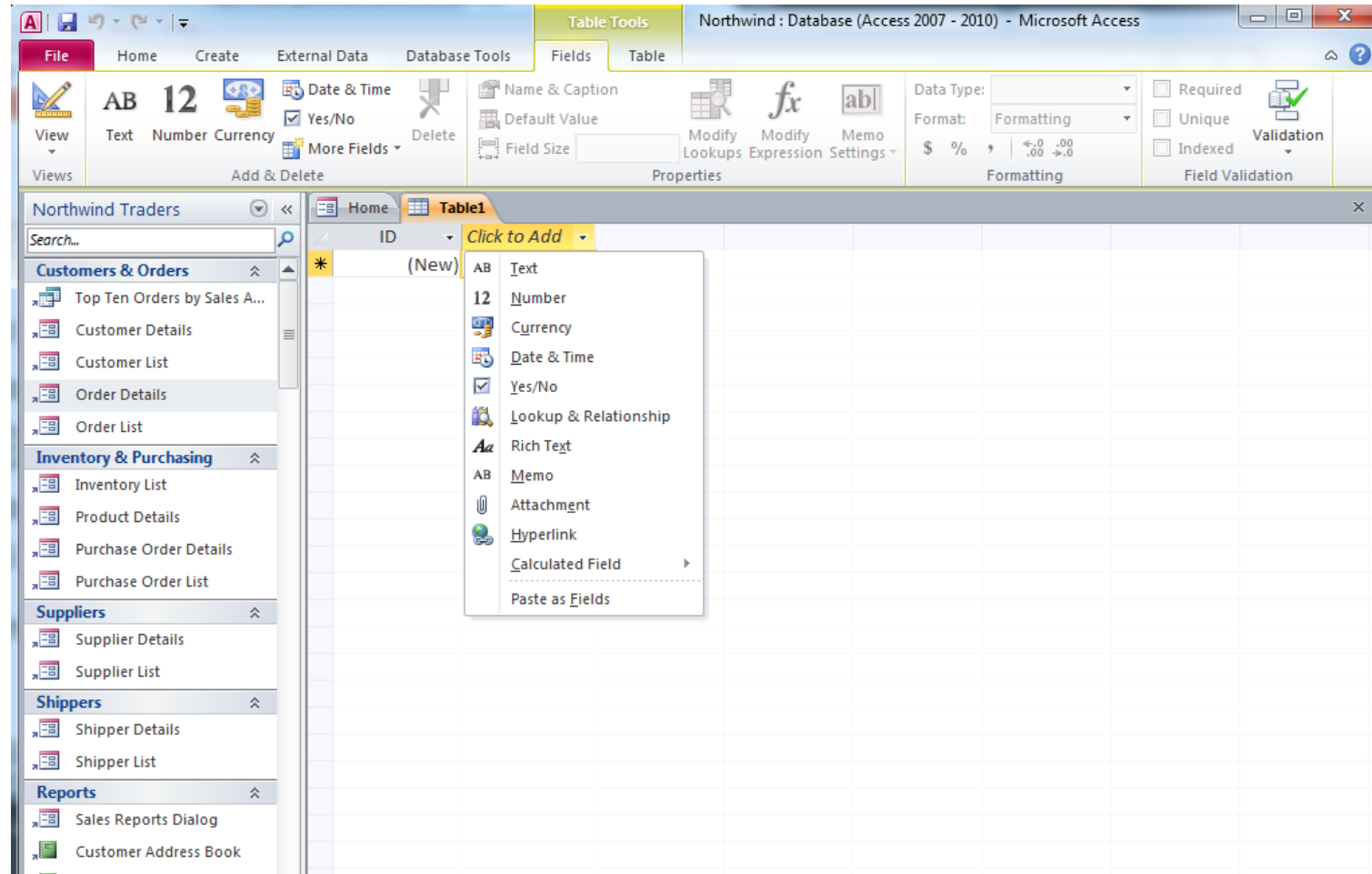


# How Do We Create Tables

MAD 202



# Graphical Tools to Create Tables



# Graphical Tools to Create Tables

The screenshot displays the phpMyAdmin web interface for a MySQL database named 'test' on localhost. The left sidebar shows the database name and a list of existing tables: test\_decimals, tlogin, tship, and tshipcancelled. A 'Create table' button is visible at the bottom of the sidebar. The main panel shows a table list with columns for Table, Action, Rows, Type, Collation, Size, and Overhead. Below the table list, there are options to 'Check All / Uncheck All' and 'With selected:'. At the bottom, there is a 'Create table' form with fields for 'Name:' and 'Number of columns:', and a 'Go' button.

Table	Action	Rows	Type	Collation	Size	Overhead
test_decimals	<a href="#">Browse</a> <a href="#">Structure</a> <a href="#">Search</a> <a href="#">Insert</a> <a href="#">Empty</a> <a href="#">Drop</a>	4	InnoDB	latin1_swedish_ci	16 KiB	-
tlogin	<a href="#">Browse</a> <a href="#">Structure</a> <a href="#">Search</a> <a href="#">Insert</a> <a href="#">Empty</a> <a href="#">Drop</a>	1	InnoDB	latin1_swedish_ci	16 KiB	-
tship	<a href="#">Browse</a> <a href="#">Structure</a> <a href="#">Search</a> <a href="#">Insert</a> <a href="#">Empty</a> <a href="#">Drop</a>	6	InnoDB	latin1_swedish_ci	16 KiB	-
tshipcancelled	<a href="#">Browse</a> <a href="#">Structure</a> <a href="#">Search</a> <a href="#">Insert</a> <a href="#">Empty</a> <a href="#">Drop</a>	4	InnoDB	latin1_swedish_ci	16 KiB	-
4 tables	Sum	15	InnoDB	latin1_swedish_ci	64 KiB	0 B

↑ Check All / Uncheck All With selected: ▾

Print view Data Dictionary

Create table

Name:  Number of columns:

Go



# Data Definition Language

- Database objects like tables and columns are created, modified and removed from the database using DDL.
- Accomplished using the CREATE, ALTER and DROP statements



# Table/Column Names

- Must be unique to each database
- Must meet the following rules:
  - Can be up to 128 characters long (MySQL – 64 characters long)
  - Must begin with a letter
  - Can contain letters, digits and underscores (\_)
  - Can NOT contain spaces or special characters (such as #, \$, &, % or punctuation)
  - Can't be reserved keywords (for example you can't call a table Select or Sum)



# Table/Column Names

- You can use a quoted identifier (delimited identifier) to break some of the rules – this involves surrounding the name with double quotes or square brackets

`[customer addresses]`

`"customer addresses"`

***It is not recommended***



# Naming recommendations

- Use lowercase letters
- names\_with\_underscores are easier to read than nameswithoutthem.
- Use the same conventions/abbreviations throughout the database



# Column Data Types

- The data type of each column is a character, numeric, datetime or other data type
- Character String Types – has these characteristics:
  - Ordered sequence of 0 or more characters
  - Length can be varying or fixed
  - Is case sensitive ( in that A comes before a in sorting)
  - Is surrounded by single quotes in SQL statements





# Strings

- Length of the string is an integer between 0 and length.
- A string with no characters is called an empty string
- An empty string is considered to be a VARCHAR of length zero
- Keep columns as short as possible, rather than giving them room to grow in the future
  - shorter columns sort and group faster than longer ones

