

Slide 1: Data Models Part 1: Thinking about Your Data

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**UCDAVIS
EXTENSION**

Slide 2: Learning Objectives

Learning Objectives

Explain why thinking before coding is important

Explain why it is important to understand how the data in a database relates to one another

Describe what a database is

Slide 3: Think Before You Code

Think Before You Code

What is the **problem** you are
trying to **solve**?

Slide 4: Understand Your Data

Understand Your Data

Understand the **business process** or **subject matter** the data is modeled after

Know the **business rules**

Understand how your data is **organized and structured** in the table (modeled)

Slide 5: Why This is Worthwhile

Why This is Worthwhile

Get more **accurate** results

Speed up your work

Have less **rework**

Slide 6: Databases and Tables

Databases and Tables

Database: A container (usually a file or set of files) to store organized data; a set of related information



Tables: A structured list of data or a specific type



Slide 7: Columns and Rows

Columns and Rows

Column: A single field in a table - all tables are made up of one or more columns

Row: A record in a table

	A	B	C	D	E	F	G	H	I	J	K
1	sku	name	brand	Price	item_height	item_length	item_width	item_unit_o	item_weight	item_unit_of_weight	
2	PFI-F0314BPY	Pfister F-031-4	Pfister	129.99	3.8	20.6	12.7	inches	6.5	pounds	
3	PFI-F042HAK0	Pfister Amher	Pfister	79.99	7.69	4.81	6.56	inches	3.42	pounds	
4	PFI-FWK1340	Pfister F-WK1	Pfister	119.99	2.5	18.5	10	inches	5.12	pounds	
5	PFI-GT343TCC	Pfister GT34-3	Pfister	149.99	2.5	18.5	10	inches	6.2	pounds	
6	PFI-MP8LNKK	Pfister Langste	Pfister	99.99	7.67	14.22	7.67	inches	3.2	pounds	
7	B00B4QEP0U	Pfister GT529-	Pfister	109.99	2.5	18.5	10	inches	3.17	pounds	
8	PFI-GT529DCC	Pfister GT529-	Pfister	179.99	2.5	24.5	10.5	inches	3.17	pounds	
9	PFI-GT529DSS	Pfister GT529-	Pfister	114.99	2.5	24.5	10.5	inches	3.17	pounds	
10	B007LEP02Q	Pfister F-031-4	Pfister	249.99	4.1	20.6	12.8	inches	6.5	pounds	
11	PFI-F0314BPS	Pfister F-031-4	Pfister	144.99	4.1	20.6	12.8	inches	6.5	pounds	
12											