BNAI MIS 3504

Digital Design and Innovation Studio

UNDERSTANDING THE DATA YOUR CLIENT NEEDS

Rich Flanagan

Photo: Installation by Jenny Holzer, US Pavillion, Venice Biennale 1990

Review:

What are the Core Requirement Components?

DATA

Understanding DATA needed in a business context

What is **DATA**

data:

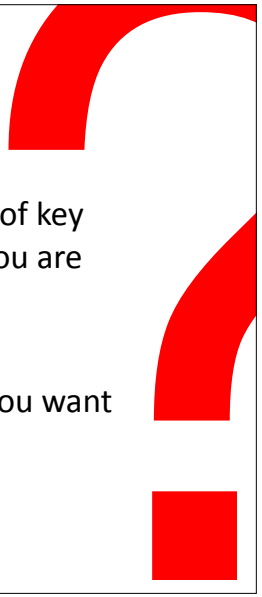
1: factual information (as measurements or statistics) used as a basis for reasoning, discussion, or calculation <the *data* is plentiful and easily available — H. A. Gleason, Jr.> <comprehensive *data* on economic growth have been published — N. H. Jacoby>

2: information output by a sensing device or organ that includes both useful and irrelevant or redundant information and must be processed to be meaningful

3: information in numerical form that can be digitally transmitted or processed

from http://www.merriam-webster.com/dictionary/data

Defining Data



- Once you have good definitions of key terms involved in your project you are done with data. Right?
- What other information might you want about your data?

Entities

- What is an entity?
- Where would you look for them?
- What might you want to know about them?

Attributes

- What is an attribute?
- Where would you look for them?
- What might you want to know about them?

Relationships

- What are the real world relationships between data entities?
- Try describing them in a sentence.

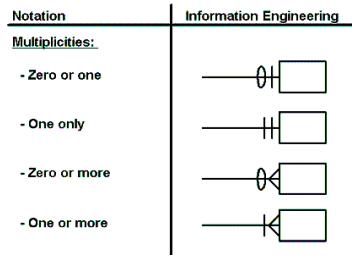
  A customer places an order.

Relationships (continued)

- What is the cardinality of the relationship?
  - One to one
    - A Temple student has one TUID number and a TUID number identifies only one student.
  - One to many
    - A doctor sees many patients.
  - Many to many
    - A library has many books and a book can be in many libraries.

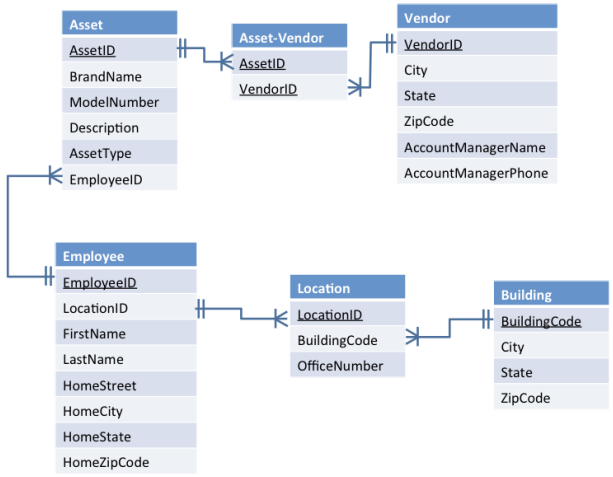
Relationships (continued)

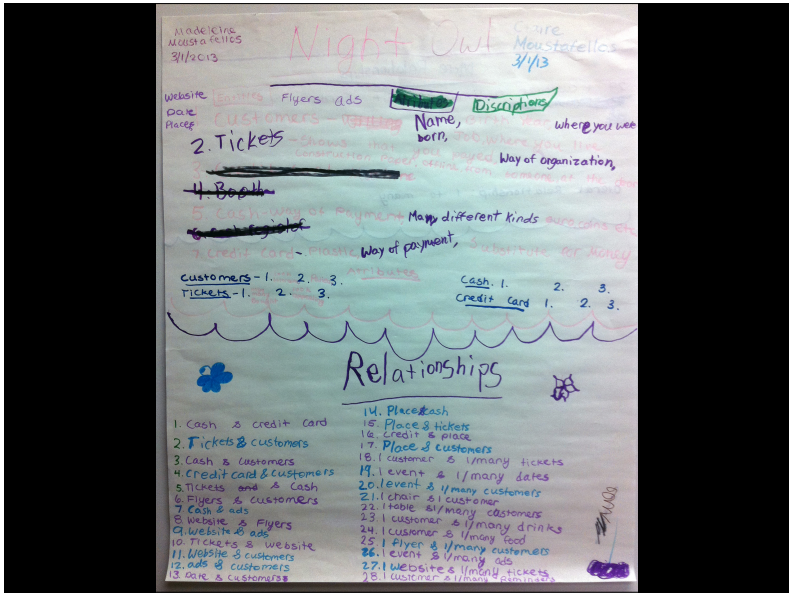
- What is a entity relationship diagram (ERD)?
- What relationship notation should you use?



Schema for Asset Management Database

(Assets are purchased from Vendors and assigned to Employees)





Team Exercise: The Night Owl Case

Instructions:

1. *Read through the case.*
2. *Work with your team.*
3. Create a **glossary** of all the key concepts or information in the case.
   - Share with the class
4. *Create a list of the **entities***
   - Share with the class
5. *Create a list of the **attributes** for each entity.*
   - Share with the class
6. *Using your list of entities, identify all the **relationships** between pairs of entities that you'll need.*
   - Share with the class
7. *Draw an **ERD** of the data needed for the case.*
   - Share with the class

Case: (5 minutes)

GLOSSARY: using the case, your personal experience and quick research, what are the key concepts and information needed by the Night Owl?

Write out a glossary of these terms

Case: (15 minutes)

ENTITIES: using your glossary, what are the entities needed by the Night Owl's application?

Write out a list of these entities.
How many do you have?
Are any related?

Case: (15 minutes)

ATTRIBUTES: using your list of entities, what are the attributes of each of your entities?

Write out a list of these entities.
How many do you have?
Are any related?

Case: (15 minutes)

Relationships: using your list of entities, what are the relationships between each of your entities?

Write a sentence to describe each relationship.
What are the cardinalities of the relationships?