Database Design Exercise #1

NPP Dataset

(Kristin)

Date	Site	Web	Plot	Quad	SPECIES	COVER	HEIGHT	COUNT	COMMENTS
2/5/2005	G	1	N	1	BOER4	1	12	7	
2/5/2005	G	1	N	1	BOER4	0.5	12	1	
2/5/2005	G	1	N	1	BOER4	0.25	10	3	
2/5/2005	G	1	N	1	LATR2	9	24	1	grazed
2/6/2005	G	1	N	1	LATR2	5	18	4	
2/6/2005	G	1	N	2	SPCR	4	12	1	
2/6/2005	G	1	N	2	SPCR	1	12	3	

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- In groups of 2-3 people

1. Split tables (normalize)
2. Determine data types
3. Determine relations

Data available in text format at http://jkim.sdsu.edu/laselva/

Exercise Results – What I would do

Location

Site	enum(‘B’,’C’,’G’,P’)
Web	integer(1)
Plot	enum(‘N’,’S’,’E’,’W’)
Quad	integer
Location_id (PK)	integer

1:n

Observation

date	date
species_id	integer
Cover	float
Height	float
Comments	text
Location_id (FK)	integer
Observation_id (PK)	integer

1:n

Species

Abbreviation	varchar
Scientific Name	varchar
Common Name	varchar
Species_id (PK)	integer

Database Design Exercise #2

- In groups of 1-2 people

A. Select a dataset at your field station you'd like to put in a database.

B. Design

   1. Split tables (normalize)
   2. Determine data types
   3. Determine relations

C. Present results as a set of tables and relationships.

Downloads

Exercise Data:

- NPP Data in text format (zipped)

Software:

- DB Designer
- MySQL Administrator & MySQL Query Browser Bundle

http://jkim.sdsu.edu/LaSelva/