

Introduction to Database Design workshop: March 22-23, 1999

Data collection: Questions used in this exercise

1. (*Definition/description*) Describe to me unambiguously the data that the field contains.
2. (*Length*) What's the longest # characters or the largest amount it could contain? (Realistically speaking)
3. (*Character support*) Is every character on the keyboard valid to enter in this field, or only some characters?
4. (*Required value*) Must the field have some value in it? Should we require the user to enter a value for that field?
5. (*Null support*) Could that field be empty or unknown and still be valid?
6. (*Uniqueness*) Must the value entered into the field be unique among all the records? Could more than one record have the same value entered into that field?
7. (*Values entered by system vs. user*) Is there a way that we could fill in the value of this field for the user, without asking them to type it in? Where would the value of that field come from?
8. (*Default value*) Is there a value that's the most common value for the field, the most likely value for the field, the most likely thing the user would type in? This may be governed by business rules, not by the data itself.
9. (*Type of key*) Is the field a key? If so, what type of key is it?
10. (*Edit rule*) When the record is first created, does a value have to be entered, or can it wait until later? Can the user change the value after the record is created?
11. (*Comparisons allowed*) Does it make sense to compare this field to other fields or other values that we know? Does it make sense to compare the value of this field on this record to that on another record? What comparison might we make?
12. (*Operations allowed*) Does it make sense to perform mathematical operations on this field? Would those operations involve the same field on other records, or other fields in our database?
13. (*Range of values, picklist*) Are there any fields for which we could realistically enumerate every possible value this field could contain? What are they?
14. (*Input mask*) Consider our Friend's birthday field. What problems could we have with this field when multiple people start typing data into this field? How can we generically describe a standard for entering data into this field? Are there other fields with this problem?
15. (*Range of values, Decimal places*) Find a numeric field. What's the largest value it could contain? (Realistically speaking) Smallest? How many decimals does it make sense to store in this number? (We don't have a good example of this in the address database.)

Field Specifications			
General Elements			
Field Name:	Parent Table:		
Label:			
Shared By:	Alias(es):		
Description:			
Physical Elements			
Data Type:	Length:		
Character Support:	Decimal Places:		
<input type="checkbox"/> Letters (A-Z)	<input type="checkbox"/> Extended (. / \$ # %)	Input Mask:	
<input type="checkbox"/> Numbers (0-9)	<input type="checkbox"/> Special (@ # * ^)	Display Format:	
Logical Elements			
Type of Key:	<input type="checkbox"/> Non	<input type="checkbox"/> Primary	Comparisons Allowed:
	<input type="checkbox"/> Foreign	<input type="checkbox"/> Alternate	<input type="checkbox"/> Same Field <input type="checkbox"/> = <input type="checkbox"/> > <input type="checkbox"/> >=
Uniqueness:	<input type="checkbox"/> Non-Unique	<input type="checkbox"/> Unique	<input type="checkbox"/> Other Fields <input type="checkbox"/> ≠ <input type="checkbox"/> < <input type="checkbox"/> <=
Required Value:	<input type="checkbox"/> No <input type="checkbox"/> Yes		Operations Allowed:
Null Support:	<input type="checkbox"/> Nulls Allowed <input type="checkbox"/> No Nulls		<input type="checkbox"/> Same Field <input type="checkbox"/> + <input type="checkbox"/> ×
Edit Rule:	<input type="checkbox"/> Enter Now, Edits Allowed		<input type="checkbox"/> Other Fields <input type="checkbox"/> - <input type="checkbox"/> ÷
	<input type="checkbox"/> Enter Now, Edits Not Allowed		Values Entered By: <input type="checkbox"/> User <input type="checkbox"/> System
	<input type="checkbox"/> Enter Later, Edits Allowed		Default Value:
	<input type="checkbox"/> Enter Later, Edits Not Allowed		Range of Values:
Specification Information			
Specification Type:	<input type="checkbox"/> Unique	<input type="checkbox"/> Generic	<input type="checkbox"/> Replica
Based on Existing Specification:	<input type="checkbox"/> No <input type="checkbox"/> Yes		
Source Specification:			

Figure 9-1. Field specifications worksheet.