Chapter 2 Instructor's Guide

Outcomes

- Review documents to discover relevant entities and attributes for database
- Prepare interview questions and follow up
- Prepare questionnaires
- Observe work flow for process and exceptions

Outline

I. Gathering Information

    A. Initial Interviews with Chief Stakeholders

    B. Review of Business Documents

    C. Interviews with Stakeholders

    D. Questionnaires

    E. Job Shadowing

II. Review of Business Documents

    A. Reasons for Review

    B. Forms

    C. Reports

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D. Other Business Documents

III. Types of Databases

A. Transaction Database

B. Management Information Systems

C. Business Intelligence Systems

D. Cloud Databases

IV. Interviews with Stakeholders

A. Preparing for the Interview

B. Conducting the Interview

C. Note Taking and Evaluating the Interview

V. Questionnaires

A. When to Use Questionnaires

B. Advantages and Disadvantages

C. Comparison with Interviews

VI. Work Shadowing

A. Reasons to Observe Stakeholders at Work

B. Looking for Exceptions

VII. Documentation

A. Business Documents

B. Interview Questions and Answer Summaries

C. Questionnaires and Summaries

Vocabulary

1. Closed-Ended Question	g. A multiple choice question
2. Domain	o. The purpose or subject of a database
3. Business Intelligence	g. A Set of tools for analyzing business trends
4. Exception	j. An Alternate way of doing a process
5. Form	b. A document for gathering input
6. Transaction Database	m. A database optimized for storing and processing real time transactions
7. Open-Ended Question	e. A question that has no set answer
8. Cloud Database	d. A database stored on Internet (cloud) servers
9. Procedure	n. The official steps and rules for completing a process
10.Data Mining	p. Combing data in a variety of formats for trends and patterns
11. Report	c. A document for displaying summarized data
12. XML	l. Marked up Unicode text that follows a few strict rules
13 Database Service	k. A service that offers access to a cloud database to applications
14. Management Information Systems	m. A database optimized for queries that summarize transaction data
15. Requirement	i. Something the database needs to do to be successful

16. Data Warehouse   f. A collection of various types of business information including

                                 databases and documents

17. Stakeholder   a. Anyone who has a stake in the process

18. Work Shadowing   q. Observing workers handling data on the job

Things to Look Up

1. *Information Gathering is often presented as a part of a Systems Design and Analysis. Look up the*

   Systems Analysis and Design Life Cycle. What are the parts of this life cycle? How do you think

   this relates to database development?

   The Wikipedia entry for this topic is at

   http://en.wikipedia.org/wiki/Systems_Development_Life_Cycle. It identifies the parts of the life

   cycle as "Planning," "Analysis," "Design," "Implementation," and "Maintenance." Most sites

   have a similar list of parts. The students should see that the database development cycle is

   essentially equivalent to the systems cycle.

2. *Look up "Joint Application Development" or JAD. Briefly describe the process. Do you think this*

   would work with Database Development?

   A good concise definition can be at http://www.mariosalexandrou.com/methodologies/joint-

   application-development.asp. Wikipedia also has a definition. The basic idea is to create one or

   more collaborative workshops that enlist all the stakeholders. The belief is that the process can

   shorten the development time by getting all the stakeholders together at one time to define

   requirements and business rules. The workshops should be carefully organized and

   professionally facilitated. It could work for database development.

3. *Search for an article on Database Design. Does it have any discussion of information gathering?*

   If so, what steps does it suggest?

The Wikipedia article http://en.wikipedia.org/wiki/Database_design specifically mentions information gathering. It does offer some suggestions, such as cooperating with a person who is expert in the knowledge domain—a biologist, for instance, for a database storing biological data. The article "Ten Common Database Design Mistakes" http://www.simple-talk.com/sql/database-administration/ten-common-database-design-mistakes/ also notes the crucial nature of careful information gathering at the start of the process. The article's author suggests taking the time needed to gather complete and correct information.

4. *What does the term Business Intelligence mean? What tools does the Microsoft Business Intelligence suite that ships with SQL Server contain?*

   Wikipedia, http://en.wikipedia.org/wiki/Business_intelligence, defines business intelligence as "computer based techniques used in spotting, digging out and analyzing business data." SQL Server's Business Intelligence tools include the Reporting Services, Analysis Services, and Integration Services among others. A complete overview can be found at http://www.microsoft.com/sqlserver/2008/en/us/R2-self-service-BI.aspx

5. *Look up Management Information Systems. What are some of the features that are associated with such systems?*

   An overview can be found at Wikipedia, http://en.wikipedia.org/wiki/Management_information_system . The article mentions the creation of management reports, but also the use of more specialized systems such as decision report systems, resource management systems, and customer management systems. The main point is that a management information system consists of reports and summaries rather than just raw data.

6. *What companies offer cloud database services?*

A quick search will provide several hundred documents about cloud services. Ideally students should be able to identify some of the major ones. Here are some links. Each of these offers basic cloud services and database hosting.

Amazon.Com   http://aws.amazon.com/

Microsoft Azure: http://www.windowsazure.com/en-us/

Google: https://cloud.google.com/

Oracle Cloud: http://www.oracle.com/us/solutions/cloud/overview/index.html

ATT Cloud: http://cloudarchitect.att.com/Home/?WT.SRCH=1&GUID=388283CB-41A4-40E3-8DE7-3E88E47DCD87

Practices

1. Look at any common receipt from a grocery store or a restaurant. List all the potential data elements on the receipt. What abbreviations of terms don't you understand? Make a list of questions you would ask someone if you were going to make a database to store this data.

This is, of course, quite variable depending on the receipt. It should include things like date, time, receipt number, the business name and address, the clerk or register number, the line items with prices and summary information. The questions should be about the data contents of the receipt—the items sold in the sense of inventory, the sale itself.

Suggested Rubric:

Poor	Ok	Good
Only one or two items listed, one	Four or five items listed. Two or	Five or more items listed. Clear

or two questions or questions that are not relevant to the underlying database.	three terms to identify, three or more questions which are relevant to the database concepts.	focus on which abbreviations need clarification. Four or more good database-focused questions.

2. Here is a report from a college help desk database.

R#: 44331	Status: In Process		
User: Michael Lawrence	**C#:** NA	**Rm:** 2176B	**P#:** NA
Date Entered	8/19/2010 6:00 PM		
Assigned to:	David Betting		
Assigned On:	8/20/2010 11:00 AM		
Description: Please quickly install a computer from order 317026 (faculty ones in 3157) before Michael gets here to start work next week. Standard staff office setup, and we'll add his special needs after he's here. I think his old dead computer is there, but he might want something from it. Ticket is a level 1.			
T Notes: New computer is in place. Old computer is at my office. – D. Betting			

Figure 1: Help Desk Report

List the stakeholders that should be interviewed.

Stakeholders should include users, IT support staff, possibly management and IT Administrators

Suggested Rubric:

Poor	Ok	Good
Irrelevant or no stakeholders	At least one of the two primary stakeholders	Users, IT support, and maybe one or two additional stakeholders

3. Using the form from practice 2, what abbreviations or terms don't you understand? Make a list of questions you would ask if you were going to make a database to store this data.

Possible questions could include:

- What does R# mean?

- What does C# mean?

- What does "P#" mean?

- What does "TNotes" mean and contain?

- What does it mean that the ticket is at Level 1?

- What are the possible values for "Status"?

- How are tickets assigned?

- Is there a limit on the size of the description?

- Who can use this report?

Students may come up with other relevant questions.

Suggested Rubric:

Poor	Ok	Good

Only one or two questions or irrelevant questions.	At least five good questions.	More than five good questions.

4. *Create a questionnaire for the users of the form in practice 2 with 4 or 5 questions. Your goal should be to understand how and when they use the form.*

Here is a possible answer, though there are several variations possible.

1. Who can submit a help request? Mark all that apply.

   a. Faculty

   b. Staff

   c. Administrators

   d. IT Staff

   e. Students

2. How are requests prioritized?

   a. By the order in which they are received

   b. by severity and urgency of the problem

   c. Both

3. Is each computer assigned to a single user?

   a. Yes

   b. No

4. How do you assign requests to the IT Staff?

   a. Based on the nature of the task

   b. By whoever is next on the list

      c. By urgency of the task

Suggested Rubric:

Poor	Ok	Good
Only one or two questions, questions not in the form of a questionnaire.	At least three good questions. In the form of a questionnaire.	Four or more good questions. In the form of a questionnaire.

5. *Here is a form to create a new account at a Web-based company:*

*Email Address

*Last Name

First Name

Address

City

State

*Home Phone

*Zip Code

*Enter a password

*Confirm Password

*Enter a password Hint

You have an interview with a manager at the company. List at least three questions you would ask him about this form.

Here are some possible questions:

- Are the fields with an asterisk required?

- If that is the case why isn't the address information required?

- What do you do with the account information once it is entered?

- Do you have rules for forming a password?

- What do you do if a user forgets his or her password?

- Can a password hint be anything?

Suggested Rubric:

Poor	Ok	Good
Only one or two questions, questions not relevant.	At least three good questions.	Four or more good questions.

6. You are going to create a database to track clubs and activities on campus. Make a list of some of the types of documents you would like to look at.

Some relevant documents might include club charters, memos, emails, club minutes, meeting agendas, etc.

Suggested Rubric:

Poor	Ok	Good
Only one or two documents, documents not relevant.	At least two good documents listed.	Three or more good documents listed.

7. Tomorrow you are going to interview several students who belong to various clubs mentioned in practice 6 above, and their faculty advisors. You will have one hour to conduct the interview. Think about what questions you might ask and make a plan like the one Sharon made on page 20 for the interview.

Here is a possible answer. The trick here is to ask questions relevant to the database, and not questions like what is your club about? How long has your club existed?

Campus Clubs Interview	Total time: 60 minutes. Allow 10 minutes for introductions.	
Question	**For**	**Time Allotted**
How many clubs are there total?	Faculty Advisors	2 minutes
What exactly would you like to track about the clubs?	Students, Faculty Advisors	10 minutes
Would you want to track which students are members of each club?	Faculty Advisors, Students	5 minutes
Are there privacy issues that should be considered?	Faculty Advisors, Students	5 minutes
Who would have access to the database?	Faculty Advisors, Students	3 minutes
Are there institutional or legal rules that the database would have to follow?	Faculty Advisors	5 minutes
How do you hope that a database will improve the situation for clubs at the school?	Faculty Advisors, Students	10 minutes
Time for follow-up questions	Faculty Advisors, Students	10 minutes

Suggested Rubric:

Poor	Ok	Good
Just a few questions not directed at specific groups. Doesn't use	Uses the interview prep form, two or three good questions	Uses the prep form. Four or more good questions, directed at

the interview organization form.	directed to specific groups.	specific groups. Sense of time management.

8. *Create a questionnaire to follow up on the interview in question 7. It will be distributed in each of the campus clubs' next meetings.*

The questions in the questionnaire are, to a large degree, dependent on what questions one asked in the interview and the answers one imagines.

Here is a possible example:

1. Would you mind if your name was listed in the database as a member of the club?

    a. Yes

    b. No

2. Which of the following do you think a club database should do? Mark all that apply.

    a. List times and places for club meetings

    b. List club officers

    c. List club meeting minutes

    d. List club members

    e. List club descriptions

    f. List faculty advisors

    g. List club requirements

3. Do you think a club database would:

    a. Improve the management of campus clubs

    b. Add an unnecessary layer of work and overhead to campus clubs

    c.   Leave things about the same

Suggested Rubric:

Poor	Ok	Good
Questions not directed at database. Don't use multiple-choice answers.	Questions directed at database, no multiple-choice responses.	Good questionnaire form. Questions on target with multiple-choice responses.

9. *Think about some job that you have held. Can you list two or three exceptions—that is, things you did that were different than the standard procedures, shortcuts or one-time variations? (If you can't think of a job, think of your classroom experience. Have you ever seen an instructor make an exception for a class or a student?) List the rules and the exceptions and briefly comment on why a database should or should not allow for each of them.*

An example of rule and exception: the rule is that all homework must be turned in on time. The exception: allowing late homework in the case of illness or certain circumstances.

Another Example: The rule at the bakery is that everyone is charged the listed price for goods. The exception is that sometimes family can have an item for free or at a discount.

Suggested Rubric:

Poor	Ok	Good
One or no examples. Doesn't list the rule with the exception.	Lists one or two rules and exceptions.	Lists two or more rules with clear exceptions.

10. *Think of a job you held, or, if you haven't held a job, think of yourself as a student. What would somebody doing a job shadow on your day observe?*

This is pretty open. Ideally the response will involve a narrative with some detail, listing typical and perhaps some untypical tasks done on a work day.

Suggested Rubric:

Poor	Ok	Good
No narrative, just a couple of listed tasks or items. Very general.	A narrative of typical things done at school or work. Moderate detail, no mention of atypical tasks or exceptions.	Good detailed narrative of things done at school or work. Some mention of atypical tasks as well as the typical.

Scenarios

Wild Wood Apartments

1. *Make a list of questions that you would ask about these forms and reports.*

It is possible for students to come up with additional questions, but here are some questions that could be asked:

Lease Form

Apt #	LeaseNumber	Lessee Name	StartDate	EndDate	Rent Amount	Deposit	Current
201	#201050109	Charles Summers	5/1/2013	5/1/2014	$ 1,500.00	$ 3,500.00	1
110	#110060109	Marilyn Newton	6/1/2013	12/1/2013	$ 1,200.00	$ 2,900.00	1
306	#306060109	Janice Lewis	6/1/2013	6/1/2014	$ 1,250.00	$ 3,000.00	1
102	#102060109	Larry Thomas	6/1/2013	6/1/2014	$ 1,250.00	$ 3,000.00	1
209	#209060109	Mark Patterson	6/1/2013	12/1/2013	$ 1,450.00	$ 3,400.00	1

- What does "current" mean?

   Do the start date and end date refer to the length of the lease?

- Is each lease attached to only one person?

Rent Payment Form

Date	Name	Apartment	LeaseNumber	Amount Paid	Late
7/1/2013	Martin Scheller	203	#203011208	$ 1,200.00	
7/1/2013	Roberta Louise	311	#311060108	$ 1,400.00	
7/1/2013	Sue Tam	111		$ 1,400.00	
7/1/2013	Laura Henderson	207	#207020209	$ 1,350.00	
7/1/2013	Thomas Jones	110	#110010109	$ 1,200.00	
7/2/2013	Shannon Hall	205	#205010109	$ 1,350.00	
7/2/2013	Bob Newton	104	#104030209	$ 1,250.00	
7/9/2013	Dennis Smith	209		$ 1,400.00	X

- In the rent payment, why are some lease numbers missing?

- What constitutes a late payment?

- Is there a fine or penalty for a late payment?

- Is there a grace period?

- At what point do you take other action like eviction?

- In the maintenance request form, what does "Res Date" Stand for?

- What is meant by "BEXpense" and "TExpense"?

- What are the "Types" of problems?"

- How do you determine what is a building expense and what is a tenant's expense?

- Do you have a rule about how soon a problem must be resolved?

Quarterly Report

Wild Wood Apartments

Quarterly

Report

Building#	#12		
Address	1321 EastLake, Seattle, WA 98123		
Quarter	Spring	Year	2013

Total Apartments	Currently Occupied	Percent	No. changing tenants
45	40	89%	13

Revenues

Total Rent Revenue	175,500.00
Expenses	
Utilities	2,450.00
Maintenance	11,298.00
Repairs	9,790.00
Insurance	5,340.00
New Tenant cleaning	10,400.00
Wages	19,200.00
Total Expenses	58,478.00
Unrecovered rents	3,200.00
Total Profit/Loss	113,822.00

- What do you mean by "No. Changing tenants"?

- What is the difference between maintenance and repairs?

- What is involved in "New Tenant Cleaning"?

- What is meant by wages? Is that for the manager?

2. *Identify the stakeholders for Wild Wood Apartments*.

- the company

- the managers

- the renters

3. *Create a plan for an hour-long interview with representatives of these stakeholders. Then meet with the instructor to discuss possible answers to the questions.*

Here is a possible plan:

Wild Wood Interview	Total time: 60 minutes. Allow 10 minutes for introductions.	
Question	**For**	**Time Allotted**
What are the two or three things you would like most to get out of this database?	Company representative	10 minutes
What is the hardest part about your job currently?	Managers	10 minutes
What part of the report takes the most time?	Managers	5 minutes
How do you think this database will affect your relation to Wild Wood apartments for good or ill?	Renters	10 minutes
Describe how you handle maintenance requests.	Managers	5 minutes
Time for follow-up questions.	Faculty Advisors, Students	10 minutes

4. Create a questionnaire of at least 5 questions for the managers of the 20 apartment buildings.

These questions can vary and can include variations of questions asked about the form. Here is an example of a questionnaire:

1. How do you currently keep track of rent payments?

      A. In an Excel worksheet.

      B. In a spiral notebook.

      C. Other. Explain: _____

2. How much time do you currently spend filling out monthly reports?

      A. 1 to 3 hours

      B. 4 to 6 hours

      C. More than 6 hours

3. Rank the following functions of an apartment management database in order of importance.

      __ Tracking rents

      __ Tracking leases

      __Tracking new and departing tenants

      __Tracking maintenance requests

      __Generating monthly reports

4. Approximately how many maintenance requests do you receive a month?

A. Between 1 and 5

B. Between 6 and 10

C. Between 11 and 15

D. More than 15

5. About how many changes in tenants do you handle a month? This includes both tenants moving in and out of apartments.

A. Between 1 and 5

B. Between 6 and 10

C. Between 11 and 15

D. More than 15

5. Look at the Job shadow report. Do you see any exceptions to the general rules? Do you see any new business rules uncovered? What additional questions arise from the report?

Exceptions

- The tenant who pays late but always pays.

- The old woman who needs until the 10th.

Business Rules

- Rents due on the first

- 5-day grace period for rents

- $100 penalty after 5 days

Vince's Vinyl

1. *Study Vince's sample notebook entries. Make a list of questions you would ask about the data in them.*

Here are some possible questions:

Album Purchases

Date   5/14/2013

Seller Name	Seller Phone	Album	Notes	cond	paid
John Raymond	206.555.2352	Rubber Soul	Amer. Not British vers. 2nd edition, good Sleeve	fair	4
Marylin Tayler	206.555.0945	Led Zeppelin IV	Not orig. Sleeve damaged, vinyl good	good	4.75
Jennifer Louis	206.555.4545	Gift of the flower to the Garden	Rare Donovan, box set, box cond poor, but vinyl excellent	excellent	12.25
Laura Hall	206.555.2080	Dark Side of the Moon		good	4.45

- What are the possible conditions?

- Does "paid" refer to what you paid for the album?

- How extensive can your notes be?

- Do you buy all albums? If not, how do you choose?

Album Sales

Date	5/12/2013			
Customer	Album	Price	Tax	Total
John Larson	Dylan, Blond on Blond	19.95	1.65	21.60
Tabitha Snyder	America	$ 5.95		
	Joni Mitchell, Blue	$ 6.25		
	Joan Baez, Ballads	$ 4.20	$ 1.36	$ 17.76
Brad Johnson	McCartney, Venus and Mars	$ 5.00	$ 0.42	$ 5.42
Maureen Carlson	Decemberists, The Crane wife	$ 15.50		
	Muddy Waters	$ 7.75	1.92975	$ 25.18

- Do you require a customer's name for a sale?

- Would you like to gather more information about customers?

- How do you determine sale prices?

2. *Identify the stakeholders in Vince's record store.*

Stakeholders should include:

- Vince

- Customers

- Sellers (those who sell him albums)

3. *Prepare an interview with Vince and two of his best customers. One who both sells albums to Vince and buys, and one who mostly just buys. Then meet with the instructor to discuss possible answers to the questions.*

Vince's Vinyl	Total time: 60 minutes. Allow 10 minutes for introductions.	
Question	**For**	**Time Allotted**
How do you price your albums? Do you have a method or an exact markup?	Vince	5 minutes
When you purchase albums do you look up values online or in a book, or do you just go by experience? Can you explain?	Vince	10 minutes
What would you like most to get out of this database?	Vince	10 minutes
How do you track inventory now? Do you have some way of identifying each album and what you paid for it?	Vince	10 minutes
When you take requests, what information do you take down? How do you contact customers?	Vince	5 minutes
Time for follow-up questions.	Vince	10 minutes

4. *Create a questionnaire for those who sell albums to Vince about changes they would like to see in the process.*

1. How many albums have you sold to Vince's Vinyl?

    A. 1 to 5

    B. 6 to 10

    C. More than 10

2. Why do you choose Vince's shop over other shops? (Circle all that apply.)

    A. You like the same music.

    B. He gives good prices.

    C. He is reasonable.

    D. He is also excellent at bringing IN records you request.

    E. You like his personality.

    F. Its location is convenient.

    G. It's the only vinyl shop you use.

3. Which of the following would most improve your experience of selling Albums to Vince's Vinyl?

    A. Consistent pricing for purchases.

    B. Clearer explanation for the prices given.

    C. Nothing, everything is fine the way it is.

4. When you don't agree with Vince's assessments, what do you do? (Circle all that apply.)

        A. Try to convince Vince into your point of view.

        B. Take your records somewhere else.

        C. Trust Vince's judgment.

        D. Pull out a pricing guide and compare.

        E. Go to another shop.

5. Do you mind providing your contact information to Vince's Vinyl?

        A. Yes

        B. No

5. *Look at the Job Shadow Report for Vince. Do you see any exceptions? What additional business rules do you see? What additional questions does the report raise?*

Exceptions

- Pricing for both purchasing and sales

Business Rules

- Generally offer a discount to most customers.

- Conditions are mint, good, fair, and poor.

- Vince doesn't buy poor quality albums unless they are rare.

- If sellers don't want albums, Vince will accept them for the $5 pile.

Questions

- How does he determine the price of albums he chooses?

Grandfield College

1. *Study the forms above. Make a list of question you would ask about the data in them.*

   Software form

Software	Version	Company	License type
Windows Vista	Business, Service Pack 2	Microsoft	MS Site
MS Office	2007	Microsoft	MS Site
			MS
Visual Studio	Professional 2008	Microsoft	Instructional
PhotoShop	CSS3	Adobe	Adobe1
FileZilla	5	FileZilla	Open Source
German	2.5	LanguageSoft	LanguageSoft1

- What constitutes a new version?

- Do different versions have different license types?

- What are the different license types?

   License Types

License Type	Start Date	EndDate	Terms	Pricing	Pricing Unit
MS Site	7/1/2009	7/1/2013	Can install as many copies as needed on campus and on laptops controlled by the school. Includes all service patches, updates, and version changes.	12500	5 yrs
Ms Instructional	7/1/2009	7/1/2025	Use for instructional purposes only. Cannot be used for school development projects.	3000	5 yrs
Adobe1	7/1/2012	7/1/2015	Reduced price per installed copy, max of 25 active copies	450	per active copy
Open Source	7/1/2009	7/1/2020	Free for use as long as registered	0	
LanguageSoft1	7/1/2009	7/1/2016	25 copies	5200	for 25 copies

- Explain more about license types.

- What happens to software when a license expires?

- What does the pricing unit mean? Do the numbers represent dollars?

CCS#	Location	Assigned User

3114   Rm212   Larson

Software	Install Date	Rmv Date
Vista Business	4/15/2013	
MsOffice	4/15/2013	
Visual Studio Pro	6/12/2013	
DreamWeaver	6/14/2013	7/12/2013

- How do you know which version of software is installed?

- Does RMV mean "removal"?

- What happens to software after it is removed?

- Do you keep track of who installs and removes the software?

- What happens to the software on retired machines?

Requests

CCS#	User	req Date	Software	Reason	Response	Res Date	Status
2123	Johnson	5/20/2013	Camtasia	I am conducting several online classes. I need to be able to create visual demos to post to the class web site.	We don't currently have a license for Camtasia but will explore acquiring one.	5/24/2013	Pending

Grandfield College	Total time: 60 minutes. Allow 10 minutes for introductions.	
Question	For	Time Allotted
Can you explain a bit more about the basic license types and how they work?	IT Administrators	10minutes
Can you explain the process you go through to install new software on a user's machine?	IT Staff	5 minutes
Can you explain some of the legal issues related to tracking software use and licensing? What exactly do you need to keep track of?	IT Administrators	15 minutes
What is your experience with requesting new software? What do you think would improve it?	Computer Users	10 minutes
Time for follow-up questions.	Vince	10 minutes

- Does "req" mean "request"?

- What is the CCS#?

- If it is a computer number—does every computer have a number?

- Are there different computer numbering systems for different departments or types of

  workers?

- Does "res" mean "Response" or "Resolution"?

- What are the different values that Status can have?

- Do you have policies about how quickly a response must be given?

- Who does the response?

2. *Identify the stakeholders in the Software tracking system.*

   IT staff, IT administration, Computer users

3. *Prepare a plan for a one-hour interview with representatives of the stakeholders listed above.*

   Then meet with the instructor to discuss possible answers to the questions.

4. Create a questionnaire for faculty and staff about changes they would like to see in the request process.

1. How often do you request new software?

      A. One or two times a year

      B. Three or four times a year

      C. More than four times a year

      D. Never

2. How long before you need the software do you make the request?

      A. A month

      B. 2 to 4 months

      C. Six months or more

      D. Other, explain

3. When you make a request, how long on average does it take to get a response?

      A. One or two days

      B. Less than a week

      C. More than a week, less than a month

      D. More than a month

4. Which of the following would improve the request process (circle all that apply)?

A. Quicker response times

B. Regular status updates

C. Clear explanations of the decisions

5. *Review the job shadowing report. Do you see any exceptions? Do you see any additional business rules? What additional questions does the report raise?*

Exceptions

The two or three instructors who have administrative privileges.

Business Rules

- Installations are not entered until they have completed successfully.
- Some installations can be done from network drives.
- Some require media.
- Instructors with administrative rights can check out software and do their own installations.
- Instructors with administrative rights must sign an agreement and are responsible for their own support.

Westlake Research Hospital

1. *Study the forms above. Make a list of questions you would ask about the data in them.*

Initial Medical History Form

Name _____ Date_____

Birth Date _____

Address_____

City_____ State_____ Zip_____

Phone_____ Email_____

List any prescription or nonprescription medicines you are currently taking.

_____

_____

List any known allergies to medicines.

_____

_____

Have you ever been told you had one of the following?

Lung disorder:	yes	no
High blood pressure:	yes	no
Heart trouble:	yes	no
Nervous disorder:	yes	no
Disease or disorder of the digestive tract:	yes	no
Any form of cancer:	yes	no
Disease of the kidney:	yes	no
Diabetes:	yes	no
Arthritis:	yes	no
Hepatitis:	yes	no
Malaria:	yes	no

If you answered yes to any of the above, please explain:

_____

Disease or disorder of the blood? (describe)_____

Any physical defect or deformity? (describe)_____

Any vision or hearing disorders? (describe)_____

Any life-threatening conditions? (describe)_____

How would you describe your depression?

a. Mild and continuous

b. Mild but intermediate

c. Moderate and continuous

d. Moderate but intermittent

e. Severe and continuous

f. Severe but intermittent

When were you first diagnosed with depression? _____

Which of the following symptoms have you experienced?

- ☐ Sleep difficulties
- ☐ Loss of appetite
- ☐ Loss of libido
- ☐ Inability to leave house
- ☐ Anxiety in social situations
- ☐ Thoughts of suicide

Briefly describe your history of depression. Include any earlier attempts at treatment.

_____

_____

_____

Is there a history of depression in your family?

- ☐ Yes
- ☐ No

If yes, explain.

_____

This is a complex form and can generate a lot of questions. Here are a few:

- Does every patient fill out this form?

- Is all the information required or is any optional?

- Does the patient fill out these fields?

- For the question "When did your depression first begin" are you expecting a date or a narrative?

Patient Visit Form

Vitals

Blood Pressure _____
Weight _____
Pulse _____

How does the patient rate his/her depression for this period on a scale of 1 to 5, with 5 being the most severe?

Rate each of the symptoms the patient has experienced on a scale of 0 to 5, with 0 being not at all, and 5 being severe.

- ☐ Sleep difficulties
- ☐ Loss of appetite
- ☐ Loss of libido
- ☐ Inability to leave house
- ☐ Anxiety in social situations
- ☐ Thoughts of suicide

List any additional symptoms or side effects.

_____

_____

Doctor's Notes

┌───┐
│   │
│   │
│   │
│   │
└───┘

Recommendation:

- ☐ Continue with study
- ☐ Drop from study

If drop, explain. _____

- • Are vitals taken every time?

- • What kinds of things are entered in the doctor's notes?

- • Why would a doctor recommend that a patient be dropped from the study?

- • Who finally determines whether a patient will be dropped or not?

2. *Identify the stakeholders in the Drug Study.*

Stakeholders should include the researchers, the doctors, and the patients. They may also include nurses, the staff and secretaries, possibly the drug company.

3. *Prepare for a one-hour interview with representatives of the stakeholders listed above. Then meet with the instructor to discuss possible answers to the interview questions.*

West Lake Hospital	Total time: 60 minutes. Allow 10 minutes for introductions.	
Question	**For**	**Time Allotted**
What are some of the situations or conditions that would justify dropping a patient from the study?	Researchers	5 minutes
Can doctors be dropped or added during the study?	Researchers	5 minutes
What sorts of things would you enter into the section called Doctor's notes?	Doctors	10 minutes
What are the security issues that must be considered for the study?	Researchers	5 minutes
Who would enter and track the appointments?	All	5 minutes
Can a patient see more than one doctor, and if so, under what circumstances?	Researchers	5 minutes
What information would you hope to see from the study?	Patients	10 minutes
Time for follow-up questions	All	5 minutes

4. Create a questionnaire for doctors about what they think would help improve the process.

1. Would you like to view your upcoming appointments online?

A. Yes

B. No

2. Which of the following would you like to access before a patient visit? (Circle all that apply.)

A. Patient medical history

B. Notes from previous visits

C. Current vitals

3. Which of the following would most improve the process?

A. Online scheduling of appointments

B. Online medical forms and histories

C. Online entry forms for patient appointments

D. Other. Explain:

4. What is the most important thing for the database to track?

A. Drug effectiveness

B. Patient status and well-being

c. Appointments

5. Review the Job Shadow Report. Do you see any exceptions? Do you find any additional business rules in the account? What additional questions does the report raise?

Exceptions

Because of the structured nature of the study, there are few if any exceptions. One might note that the doctor doesn't exactly follow the form but covers all the main points. One of the points of the database may be to make the doctors follow the form more strictly. Also, the criteria for

dropping a patient from the study are vague, especially in terms of non-participation. How many missed visits does it take to be dropped?

Business Rules

- Nurses take the vitals.

- Secretaries arrange appointments.

- Patients are dropped from the study because their symptoms need more urgent care or because of lack of participation.

Show Times: Local Shows and Acts

1. *Study the documents just presented. Make a list of questions you would ask about the data in them.*

   Turquoise Cadillac, Tuesday Nov 6 with Unibrow and Breazy, The Croc, $15 adv | 8 pm doors, All ages + Bar W/ID, Tickets available at http://theCroc.com, Team5er

   Phase 2 events presents Winter White Featuring Willoby and Monkey Tree, also Tic Toc, T Funk, Jelly Brown. Tickets go on sale 10/20/2014, Start at only $10. General admission only. Physical tickets available at _____

   These are just text off handmade posters tacked up around town. Question might include:
   - Does adv mean "advance"?

   - What does "all ages + bar" mean? Is the bar in a separate area?

   - What does "Team5er" mean?

   - What is "Phase 2 Events"?

   - If it is only general admission, why do tickets start at $10?

The next forms are newspaper ads:

All ages
Artemis, Whitney, Lord Bird
Fri Dec 14 at 8 pm.
Live

Hollow Planet Radio
2018A E. Lewis St

(Central District)
map

_____

Staff PickAll Ages
Damien, Naomi, Guests
Fri Dec 14 at 8 pm.
Live

St Joseph's Cathedral
323-0300
1245 10th Ave E

(Capitol Hill)
map

Questions about these could include:

- What does "Live" mean in this context?

- What are possibilities other than live?

- What does "Guests" mean?

- Is there a way to find out what the Guests are?

2. *Identify the stakeholders in the music tracking database.*

    The primary stakeholders are the acts, the venues, the fans, and the database owners.

3. *Prepare for a 1-hour interview with representatives of the stakeholders listed in the report. Then*

    meet with the instructor to discuss possible answers to the interview questions.

Show Times	**Total time:** 60 minutes. Allow 10 minutes for introductions.	
Question	**For**	**Time Allotted**
How do you advertise your shows now?	Venues	5 minutes
How far ahead of time do you know your schedule?	Venues	5 minutes

How far ahead do you know where you will be playing?	Acts	10 minutes
What do you think is the most essential information to get out about a show?	Venues, Acts	5 minutes
How do you find out where an act is playing?	Fans	5 minutes
What would you like to see in a central database of acts, venues, and shows?	All	15 minutes
Time for follow-up questions	All	5 minutes

4. *Create a questionnaire for venues or artists about what they think would help improve the process of getting the information out about shows.*

1. What means do you use now to get the word of an upcoming concert out to fans? Check all that apply.

    a. Word of mouth

    b. Street posters

    c. Emails

    d. Ads in local papers

    e. Radio or TV ads

2. What kinds of venues to you normally play in? Check all that apply.

    a. Tavern

    b. Lounge

    c. Event halls (arenas, fairgrounds, stadiums)

    d. Public halls (colleges, schools, etc.)

    e. Parks, festivals

3. Do you have a web site devoted to your act?

    a. Yes

b. No

4. Would you have any objection to listing your act and shows in a central database?

    a. Yes

    b. No

5. Do you know of any legal reasons (contracts with a label, etc.) that would prevent you from being listed in a central database?

    a. Yes

    b. No

5. *Review the Job Shadow Report. Do you see any exceptions? Do you find any additional business rules in the account? What additional questions does the report raise?*

There are a couple of exceptions revealed in the job shadow.

- Not every show requires tickets.

- It is not always known who the guest acts will be.

- It is also useful to note that some acts also have email lists.

Business rules

- The show info should list the act name, the venue, the time, and any additional acts.

- The database must be flexible (some acts require tickets, others don't, sometimes the guest artist is known, sometimes not).

- Possibly a rule that fans should sign up for email notifications

Rubric for Grading Scenarios

General Observations

1. Students should have questions about any ambiguous or obscure fields in the form. In addition they may have questions concerning the use of the form and its place in the process. My questions are only meant as a general guide to the types of questions they could ask.

2. I have entered the minimal stakeholders list. Students may identify several other legitimate stakeholders, often by subdividing my general stakeholders into more specific groups.

3. The interview plan should follow the structure of the one outlined in the chapter. It should also focus primarily on open-ended questions.

4. The questionnaires are difficult. I would suggest allowing a lot of latitude. The key is that the questionnaires should focus on closed-ended questions.

5. Students should identify the major exceptions and see some new business rules in the job shadow. I have tried above to indicate what the major exceptions and rules should be.

Poor	OK	Good
1. Students don't identify most of the unclear or ambiguous fields. No questions about how the form is used.	Students identify most of the ambiguous or obscure fields. Some questions about the use of the forms.	Students identify all the obscure fields and may ask questions of other fields, such as when they are required. Several questions about use of the forms.
2. Students miss some of the	Students identify most of the	Students identify all the major

major stakeholders.	stakeholders.	stakeholders and may include some additional ones by breaking general groups into more specific ones.
3. Students don't use the form from the chapter. Questions vague, not directed or open ended.	Students use the form. Decent open-ended questions.	Students use the form. Good, focused, open-ended questions aimed at the stakeholders and data needs of the scenario.
4. Only a few questions, not focused on topic. Questions not closed ended.	Most questions focused and closed ended.	Good closed-ended questions with a direct relevance to the database and business needs of the scenario.
5. No clear idea of what exceptions and business rules are shown in the job shadow.	Spot most major exceptions, may see one or two business rules.	Clear idea of what the exceptions are. Good exposition of the business rules exposed by the job shadow report.

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