Fundamentals of Business Analysis

Overview of Analysis

Transforming Requirements

Why *transform*?

Business Analysts are not order-takers.

We do more than get input and write requirements.

Where we add the most value is in transforming the input we receive into requirements and solutions.

Coming Up

First half of section: Analysis

All the mental techniques used to break down the information we get from stakeholders.

Second half of section: Modeling

Devising representations of problems, solutions, processes, organizations, etc, that aid in understanding.

Analysis

"Generally, all analysis gets beyond mere description and into examination and explanation."

University of Richmond Writing Center

http://writing2.richmond.edu/writing/wweb/analysis.html

Analysis: "A careful study of something to learn about its parts, what they do, and how they are related to each other."

Merriam Webster's Online Dictionary

http://www.merriam-webster.com/dictionary/analysis?show=0&t=1397141296

Why Analyze?

For two reasons.

1. If we don't analyze something (our organization/problem/whatever), we don't fully understand it

2. If we don't analyze our problems, we can't be sure that we are devising the best solutions

3. Oh, and you're a Business Analyst, by the way ☺

Fundamentals of Business Analysis

"Thinking about Stuff"

"Thinking about Stuff"

Yes. This totally counts as business analysis.

"Thinking about Stuff"

Req ID	Requirement	Rationale	Source	Parent
UR-1	The summary report will list each of the beverage products available for sale by the organization.	List of products is critical to understanding the report.	Martha Warren, Product Analyst	BR-2
UR-2	For each beverage listed, the summary report will display the unit cost of the beverage.	Unit cost makes it easier for management to compare beverages.	Martha Warren, Product Analyst	BR-2
UR-3	For each beverage listed, the summary report will display the total sales of the beverage over the given timeframe.	Total beverage sales is critical to understanding the report.	Martha Warren, Product Analyst	BR-2

"Thinking about Stuff"

Which field(s)/column(s) will represent the products?

Req ID	Requirement	Rationale	Source	Parent
UR-1	The summary report will list each of the beverage products available for sale by the organization.	List of products is critical to understanding the report.	Martha Warren, Product Analyst	BR-2
UR-2	For each beverage listed, the summary report will display the **unit cost** of the beverage.	Unit cost makes it easier for management to compare beverages.	Martha Warren, Product Analyst	BR-2
UR-3	For each beverage listed, the summary report will display the **total sales** of the beverage over the given timeframe.	Total beverage sales is critical to understanding the report.	Martha Warren, Product Analyst	BR-2

"Thinking about Stuff"

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How will they be listed?

Req ID	Requirement	Rationale	Source	Parent
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Are we missing anything else?

Fundamentals of Business Analysis

Decomposition Analysis

Decomposition Analysis

Decomposition

Breaking a complex into its constituent parts to facilitate simpler study.

Decomposition Analysis

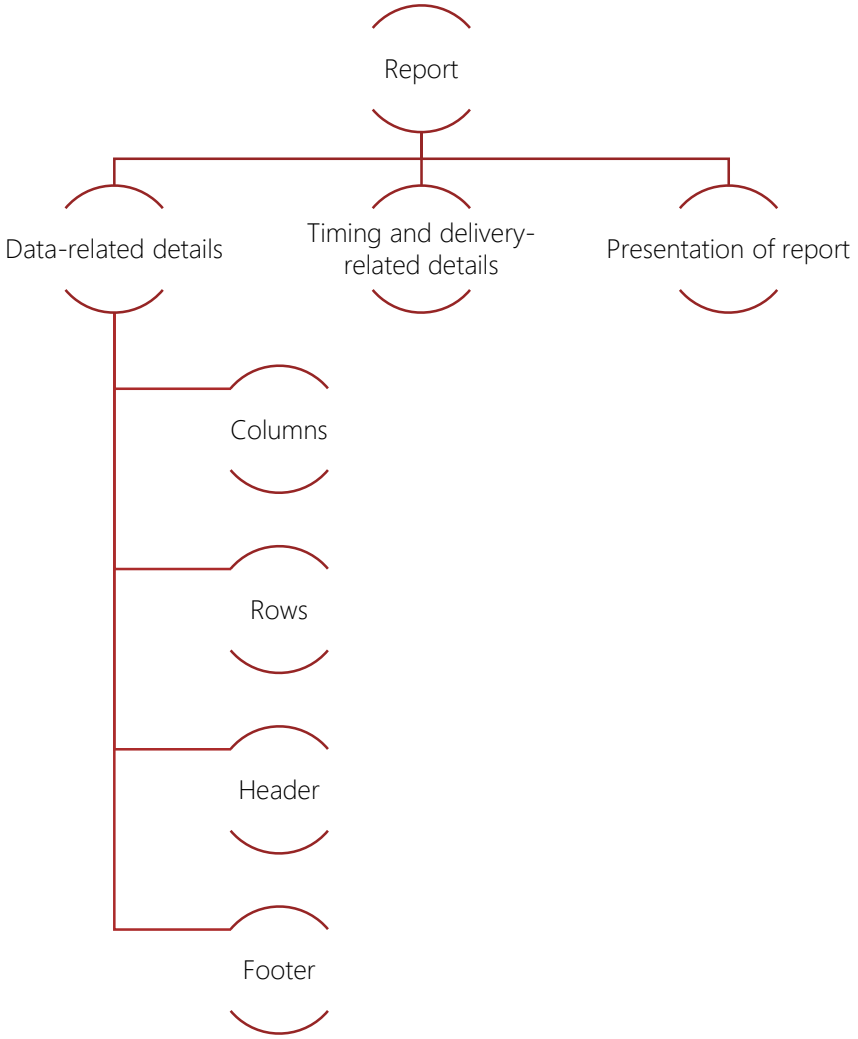
BR-2:

"System will enable a user to create summary reports of all beverages sold monthly.

Decomposition Analysis

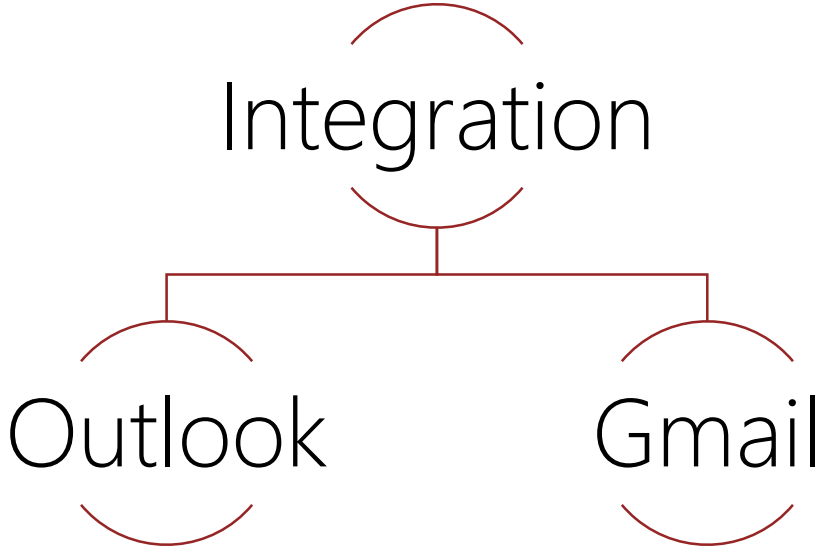
BR-2:

"System will enable a user to create summary reports of all beverages sold monthly.



Decomposition Analysis

As a blogger,
I need full integration with
Microsoft Outlook and Gmail,
So I can do everything I want.



Decomposition Analysis

Business Analyst

"When you say *e-mail integration*, what do you mean by that?"

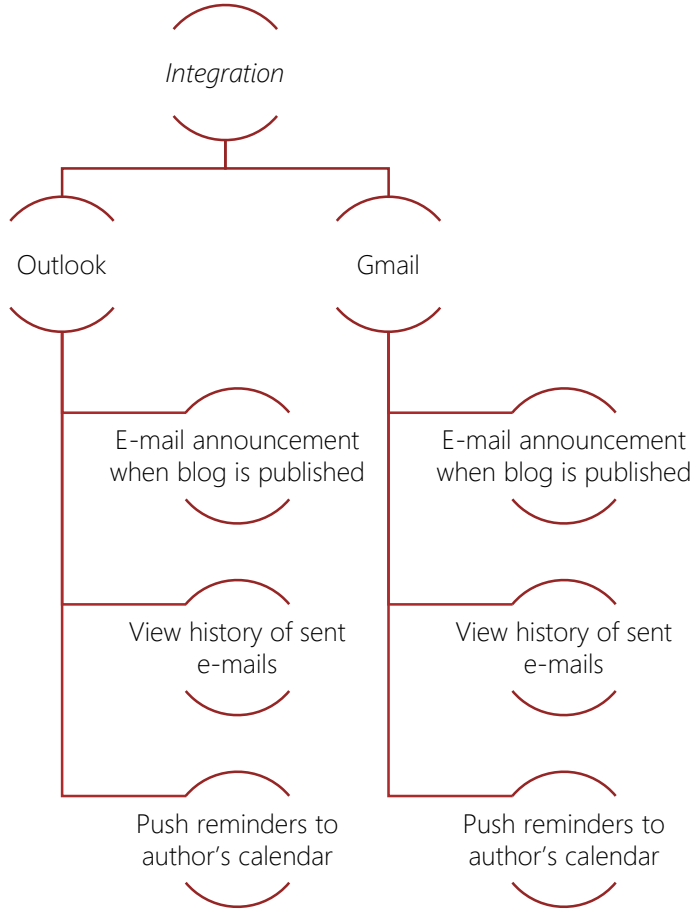
Product Manager

- E-mail announcement when a blog is published
- Being able to view the history of e-mails sent
- Push reminders to blog author's calendar
- [And anything else we think of later]

Decomposition Analysis

Product Manager

- E-mail announcement when a blog is published
- Being able to view the history of e-mails sent
- Push reminders to blog author's calendar
- [And anything else we think of later]



Decomposition Analysis

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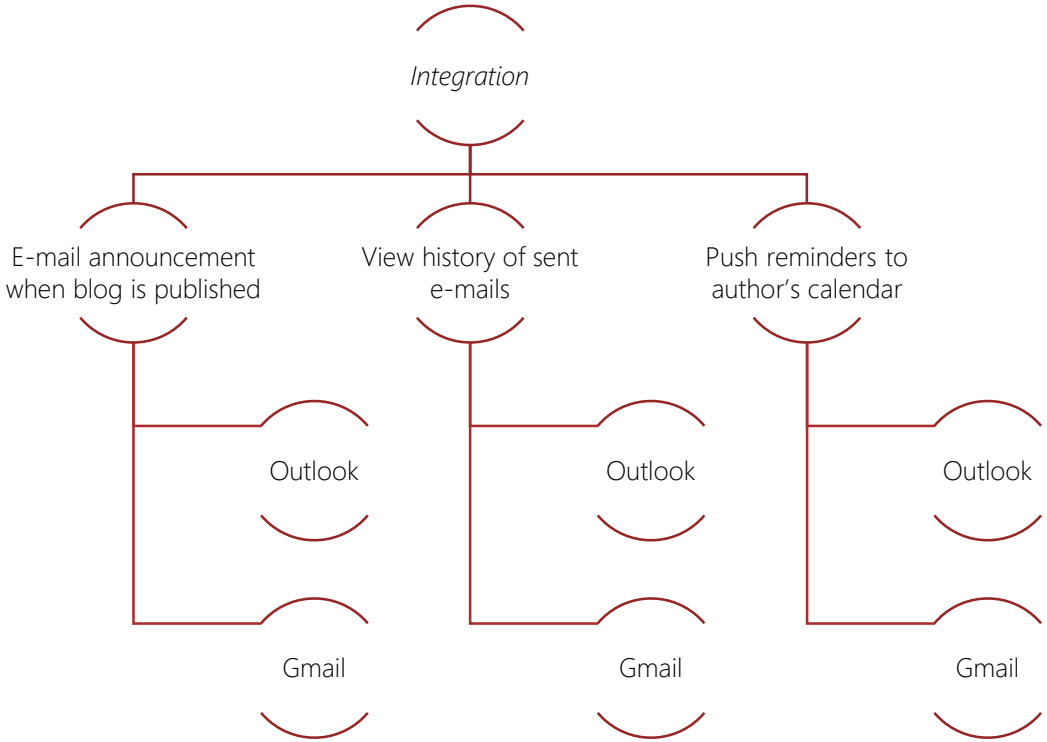
Product Manager

- E-mail announcement when a blog is published
- Being able to view the history of e-mails sent
- Push reminders to blog author's calendar
- [And anything else we think of later]



Decomposition Analysis

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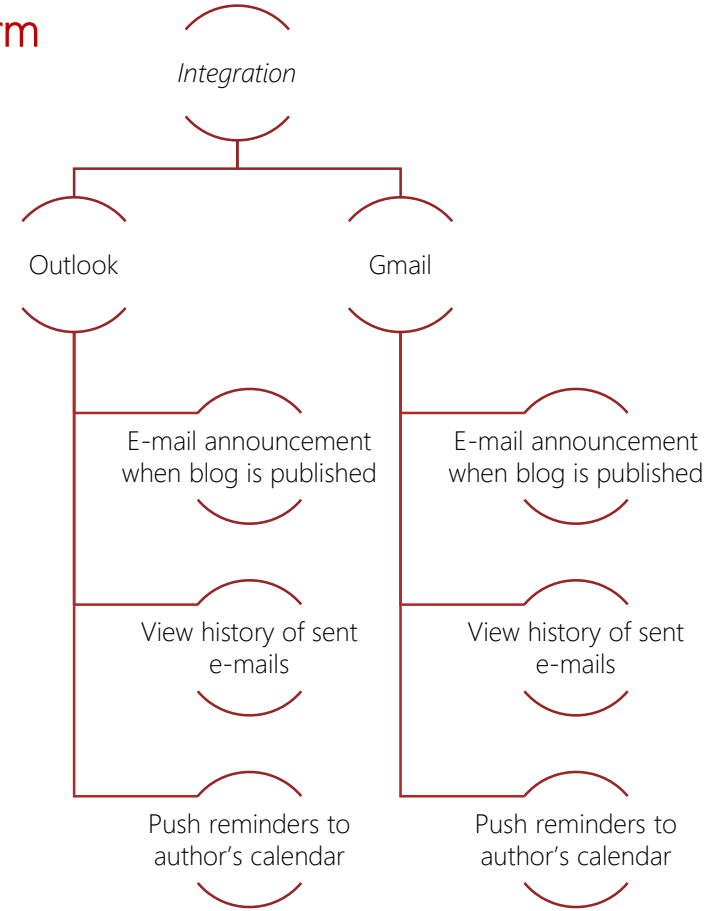
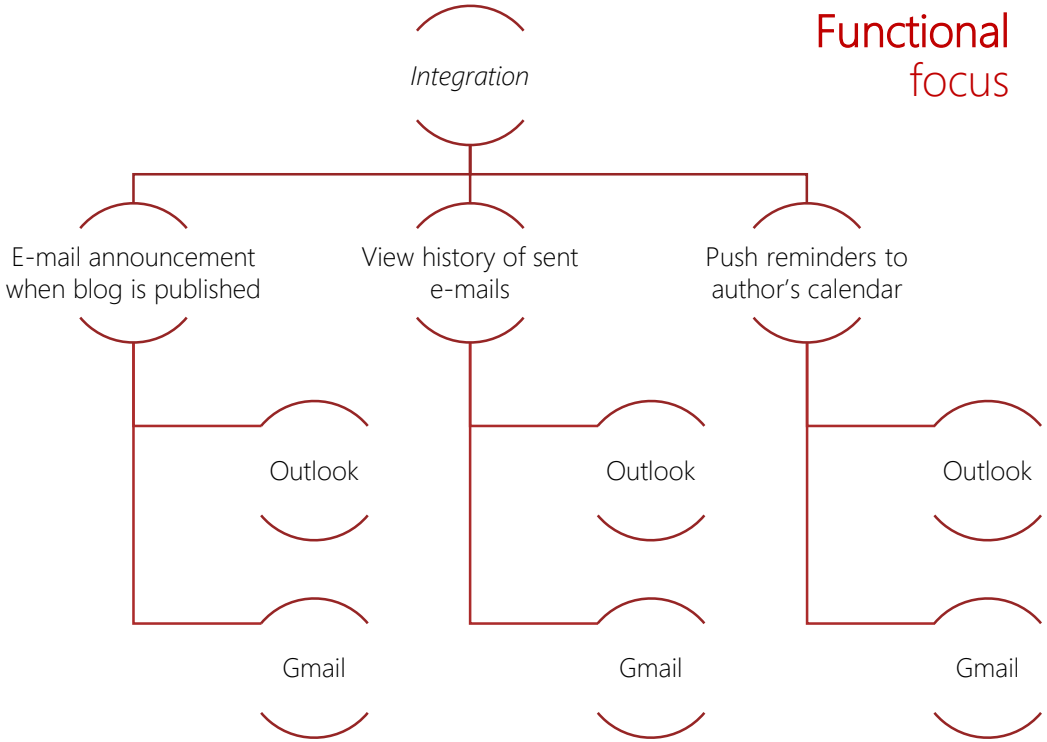
Platform focus



Functional focus



Fundamentals of Business Analysis

Additive/Subtractive Analysis

Additive/Subtractive Analysis

Additive Analysis

Adding a component to a complex to understand its role.

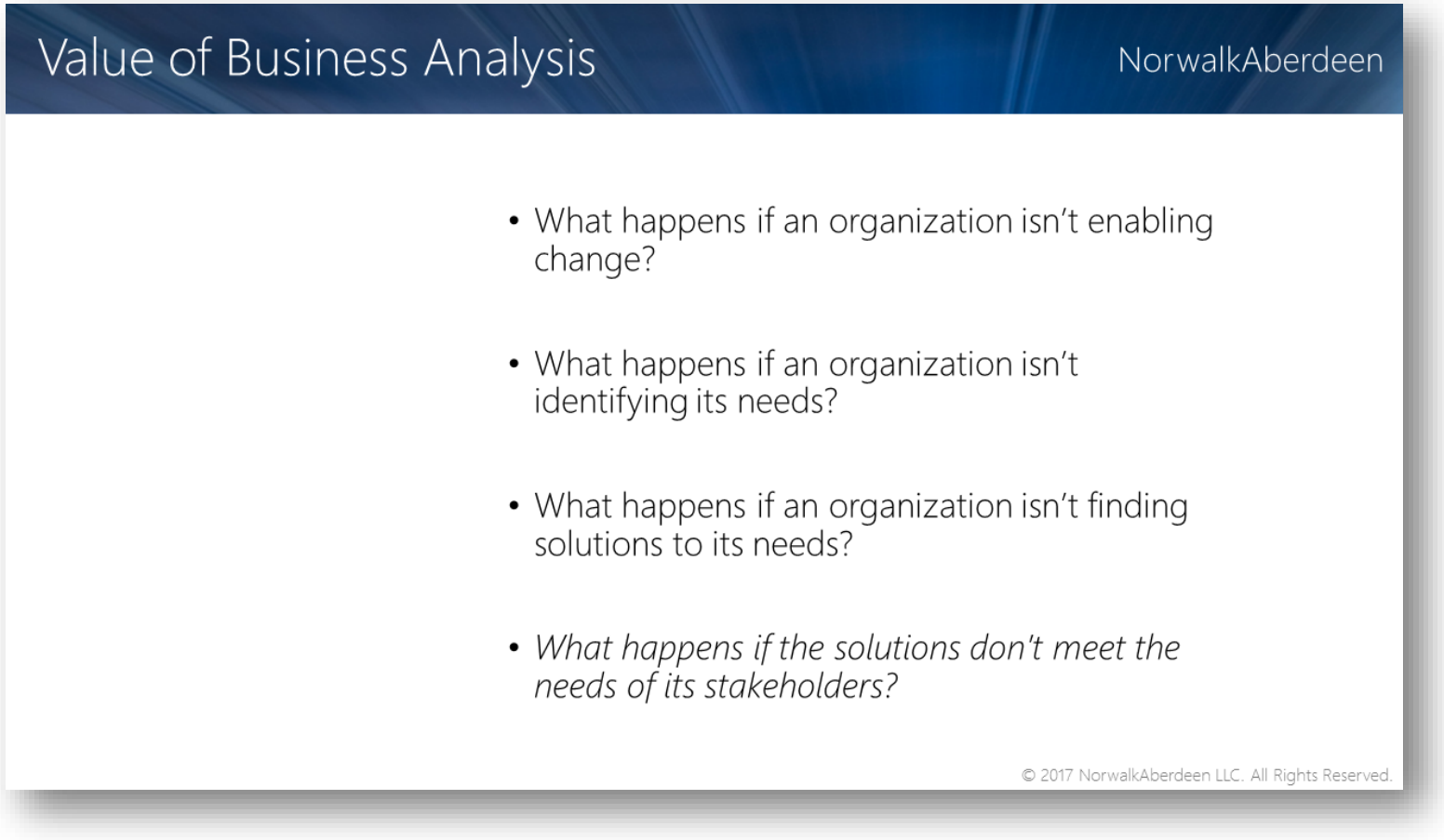
Subtractive Analysis

Removing a component from a complex to understand its role.

Additive/Subtractive Analysis

Remember these questions from back in Section One…?

They are examples of subtractive analysis.



Additive/Subtractive Analysis

Req ID	Requirement	Rationale	Source	Parent
UR-1	The summary report will list each of the beverage products available for sale by the organization.		Martha Warren, Product Analyst	BR-2

Martha seems to be looking for a report something like this:

Summary Report

Beverage Product	Column 2	Column 3	Column 4	Column 5
Yummy Drink	datadatadata	$3,100,000	datadat	$3,100,000
Kaf-Pow	datadata	$2,700,000	datadatada	$2,700,000
Croc-Ade	datadatada	$2,100,000	datadata	$2,100,000
PowerJuice	datada	$2,000,000	datad	$2,000,000
Purple Drank	datad	$1,850,000	da	$1,850,000
Inexplicably Blue Liquid	datadata	$1,700,000	datadatad	$1,700,000
Drinkable	datadatada	$1,650,000	datadat	$1,650,000

Additive/Subtractive Analysis

Martha seems to be looking for a report something like this…

But if we subtract the beverage names, what is the impact?

Summary Report

Beverage Product	Column 2	Column 3	Column 4	Column 5
Yummy Drink	datadatadata	$3,100,000	datadat	$3,100,000
Kaf-Pow	datadata	$2,700,000	datadatada	$2,700,000
Croc-Ade	datadatada	$2,100,000	datadata	$2,100,000
PowerJuice	datada	$2,000,000	datad	$2,000,000
Purple Drank	datad	$1,850,000	da	$1,850,000
Inexplicably Blue Liquid	datadata	$1,700,000	datadatad	$1,700,000
Drinkable	datadatada	$1,650,000	datadat	$1,650,000

Summary Report

Beverage Product	Column 2	Column 3	Column 4	Column 5
Beverage #1	datadatadata	$3,100,000	datadat	$3,100,000
Beverage #2	datadata	$2,700,000	datadatada	$2,700,000
Beverage #3	datadatada	$2,100,000	datadata	$2,100,000
Beverage #4	datada	$2,000,000	datad	$2,000,000
Beverage #5	datad	$1,850,000	da	$1,850,000
Beverage #6	datadata	$1,700,000	datadatad	$1,700,000
Beverage #7	datadatada	$1,650,000	datadat	$1,650,000

Fundamentals of Business Analysis

Gap Analysis

Gap Analysis

A component-wise analysis of a complex to understand its difference from another complex.

Commonly used to determine gaps between…

- Current state and future state
- Our organization's needs and vendor's products

[and conceivably any other two things which are not exactly the same]

Example 1: Current State vs. Future State

Current State	Future State
Sell sporting goods only	Diversified product line
Volatile revenues	Smoother revenues
Revenues = $2 billion/year	Revenues = $3 billion/year

Gap Analysis

Example 1: Current State vs. Future State

Current State	Possible Courses of Action	Future State
Sell sporting goods only	• Develop new product(s) • Buy another company	Diversified product line
Volatile revenues	• Develop new product(s) • Buy another company • Increase sales efforts during slow times	Smoother revenues
Revenues = $2 billion/year	• Develop new product(s) • Buy another company • Increase sales efforts	Revenues = $3 billion/year

Example 2: Our Organization's Needs vs. Their Product

Requirement	Product Feature
Send bulk e-mail to a list of recipients	Y
List can contain 10,000,000 recipients	N: Currently, lists can contain a maximum of 32,768 recipient addresses.
Bulk e-mails will have bounce-handling applied	Y
Workflow	N: Product has no workflow features.
…	

Example 2: Our Organization's Needs vs. Their Product

Requirement	Product Feature	Recommendation
Send bulk e-mail to a list of recipients	Y	N/A
List can contain 10,000,000 recipients	N: Currently, lists can contain a maximum of 32,768 recipient addresses.	Vendor must implement 10,000,000-recipient limit.
Bulk e-mails will have bounce-handling applied	Y	N/A
Workflow	N: Product has no workflow features.	Vendor implements workflow features. If they won't agree, investigate 3rd party integration tools
…	…	…

Gap Analysis

A component-wise analysis of a complex to understand its difference from another complex.

Commonly used to determine gaps between…

- Current state and future state
- Our organization's needs and vendor's products

[and conceivably any other two things which are not exactly the same]

Gap Analysis

A component-wise analysis of a complex to understand its difference from another complex.

Commonly used to determine gaps between…

- Current state and future state
- Our organization's needs and vendor's products

[and conceivably any other two things which are not exactly the same]

Fundamentals of Business Analysis

Decision Analysis

Decision Analysis

Decisions are difficult for organizations, because of the significant impact their results will have.

Business Analysts (i.e. you) are responsible for advising management on decision-making.

So we need some kind of method.

Decision Analysis

Decision Analysis is

1. determining which decisions need to be made and
2. developing analytical frameworks to make them

It's a critical tool for big decisions, but it's overkill for small decisions.

Example: Where to Go for Dinner

As I was just saying… it's overkill for small decisions.

Strategies for making this decision:

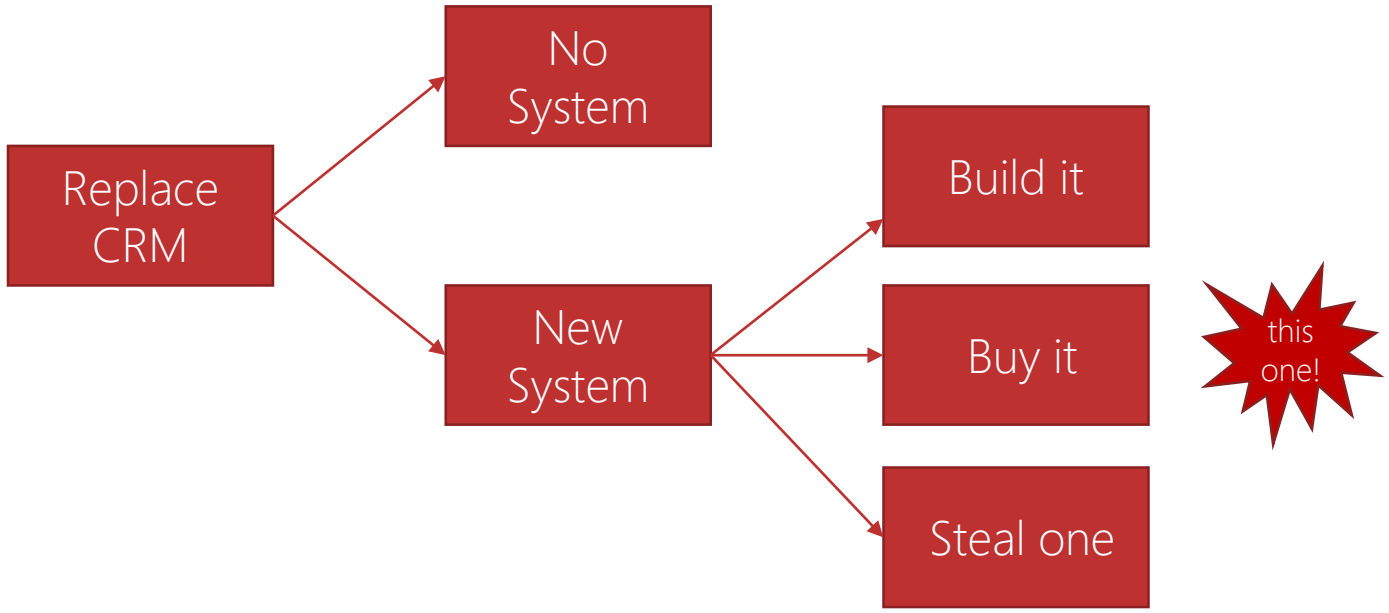
Don't make any decision	(not a good way to run a business)
Do what you did in the past	(not a good way to run a business)
Select randomly	(not a good way to run a business)
Get a recommendation	(okay, but expensive)

Example: Choosing a Replacement Strategy

Scenario: NorwalkAberdeen is spending too much on CRM.

Challenge: What are our options?

Tool: A decision tree



Example: Choosing the System

Now we need to choose one system out of twelve.

Twelve = a lot of options.

Have a lot of options? Use a decision table!

Example: Choosing the System

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CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System A							
System B							
System C							
System D							
System E							
System F							
System G							
System H							
System I							
System J							
System K							
System L							

Example: Choosing the System

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CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System A	8	7	5	3	1	0	24
System B							
System C							
System D							
System E							
System F							
System G							
System H							
System I							
System J							
System K							
System L							

Example: Choosing the System

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CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System A	8	7	5	3	1	0	24
System B	3	8	7	8	7	7	40
System C	5	7	8	6	5	5	36
System D	8	9	7	2	1	8	35
System E	6	9	7	5	4	9	40
System F	9	7	4	5	4	0	29
System G	10	6	1	9	8	5	39
System H	5	10	7	4	3	4	33
System I	5	5	8	10	9	5	42
System J	2	7	9	4	3	0	25
System K	8	8	9	8	7	6	46
System L	6	6	6	8	7	7	40

Example: Choosing the System

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CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System K	8	8	9	8	7	6	46
System I	5	5	8	10	9	5	42
System B	3	8	7	8	7	7	40
System E	6	9	7	5	4	9	40
System L	6	6	6	8	7	7	40
System G	10	6	1	9	8	5	39
System C	5	7	8	6	5	5	36
System D	8	9	7	2	1	8	35
System H	5	10	7	4	3	4	33
System F	9	7	4	5	4	0	29
System J	2	7	9	4	3	0	25
System A	8	7	5	3	1	0	24

Example: Choosing the System (Take 2)

The problem

Simple decision tables consider all factors to have the same weight.

We need a *weighted* version.

Example: Choosing the System (Take 2)

The first table lists the features and their weights.

Feature	Weight
Cost	10
KF1	7
KF2	5
KF3	8
KF4	6
KF5	3

The second table…

Example: Choosing the System (Take 2)

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Same as before!

CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System A							
System B							
System C							
System D							
System E							
System F							
System G							
System H							
System I							
System J							
System K							
System L							

Example: Choosing the System (Take 2)

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CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System A	8	7	5	3	1	0	184

How to calculate the score:

Score =	Cost x its weight +	8 x 10	= 80
	KF1 x its weight +	7 x 7	= 49
	KF2 x its weight +	5 x 5	= 25
	KF3 x its weight +	3 x 8	= 24
	KF4 x its weight +	1 x 6	= 6
	KF5 x its weight	0 x 3	= 0

So the score is 184.

Feature	Weight
Cost	10
KF1	7
KF2	5
KF3	8
KF4	6
KF5	3

Example: Choosing the System (Take 2)

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Feature	Weight
Cost	10
KF1	7
KF2	5
KF3	8
KF4	6
KF5	3

CRM System	Cost	Key Feature 1	Key Feature 2	Key Feature 3	Key Feature 4	Key Feature 5	Score
System A	8	7	5	3	1	0	=(B10*B2)+(C10*B3)+(D10*B4)+(E10*B5)+(F10*B6)+(G10*B7)
System B	3	8	7	8	7	7	248
System C	5	7	8	6	5	5	232
System D	8	9	7	2	1	8	224
System E	6	9	7	5	4	9	249
System F	9	7	4	5	4	0	223
System G	10	6	1	9	8	5	282
System H	5	10	7	4	3	4	217
System I	5	5	8	10	9	5	274
System J	2	7	9	4	3	0	164
System K	8	8	9	8	7	6	305
System L	6	6	6	8	7	7	259

Advice

1. Ask questions. I'm awfully helpful.
2. Watch this lecture again if necessary.
3. Yes, this is all on the quiz.

Fundamentals of Business Analysis

Root Cause Analysis

Root Cause Analysis

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If you want to figure out *why* something is happening, use root cause analysis (RCA).

RCA is used extensively in business process management, but can be used to determine the source(s) of any problem.

Five Whys

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To find the root cause of a problem, ask why five times.

This approach will give you a single root cause.

Maybe that's good. Maybe not.

Ishikawa Diagramming

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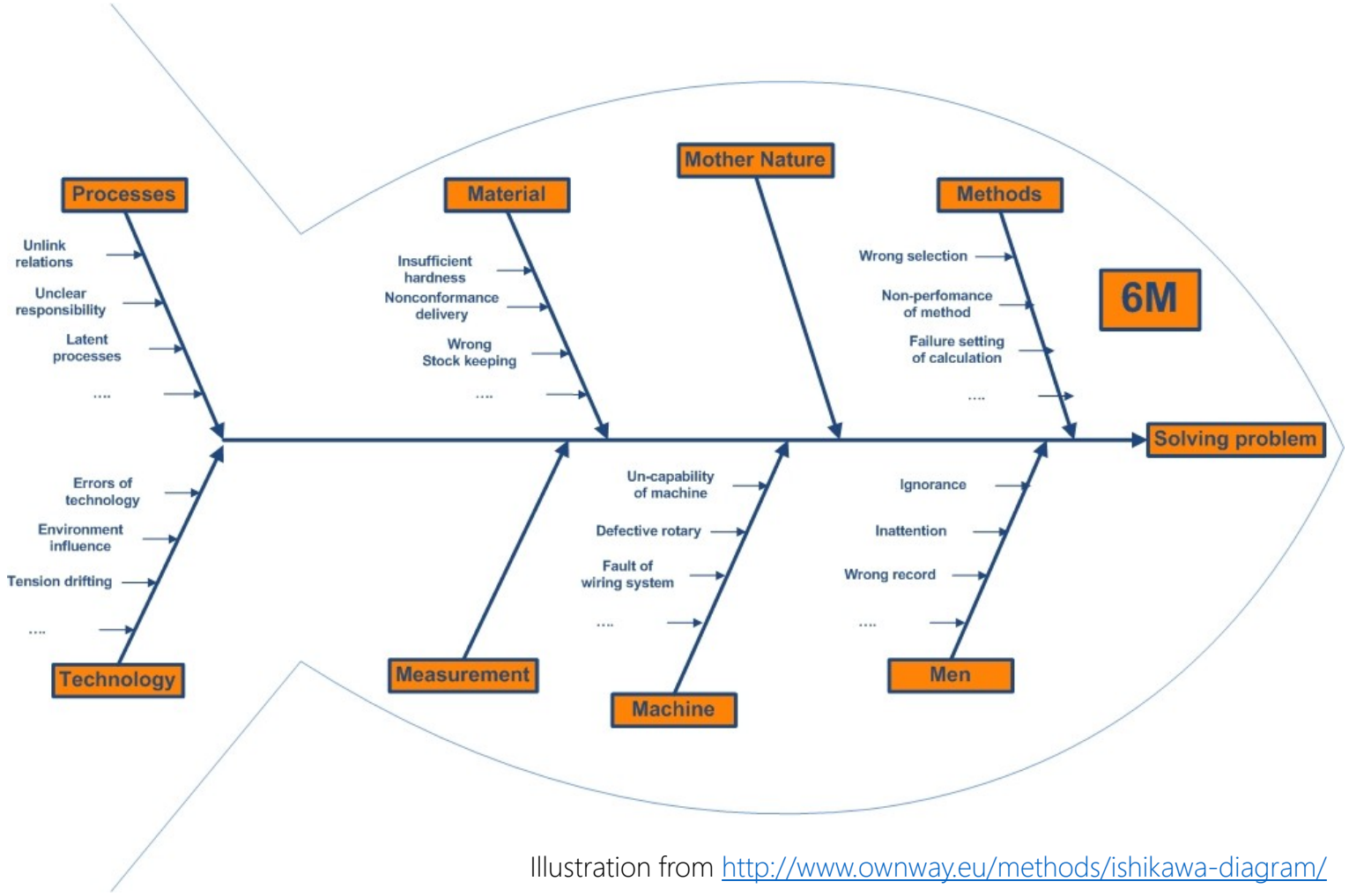

Illustration from http://www.ownway.eu/methods/ishikawa-diagram/

Ishikawa Diagramming

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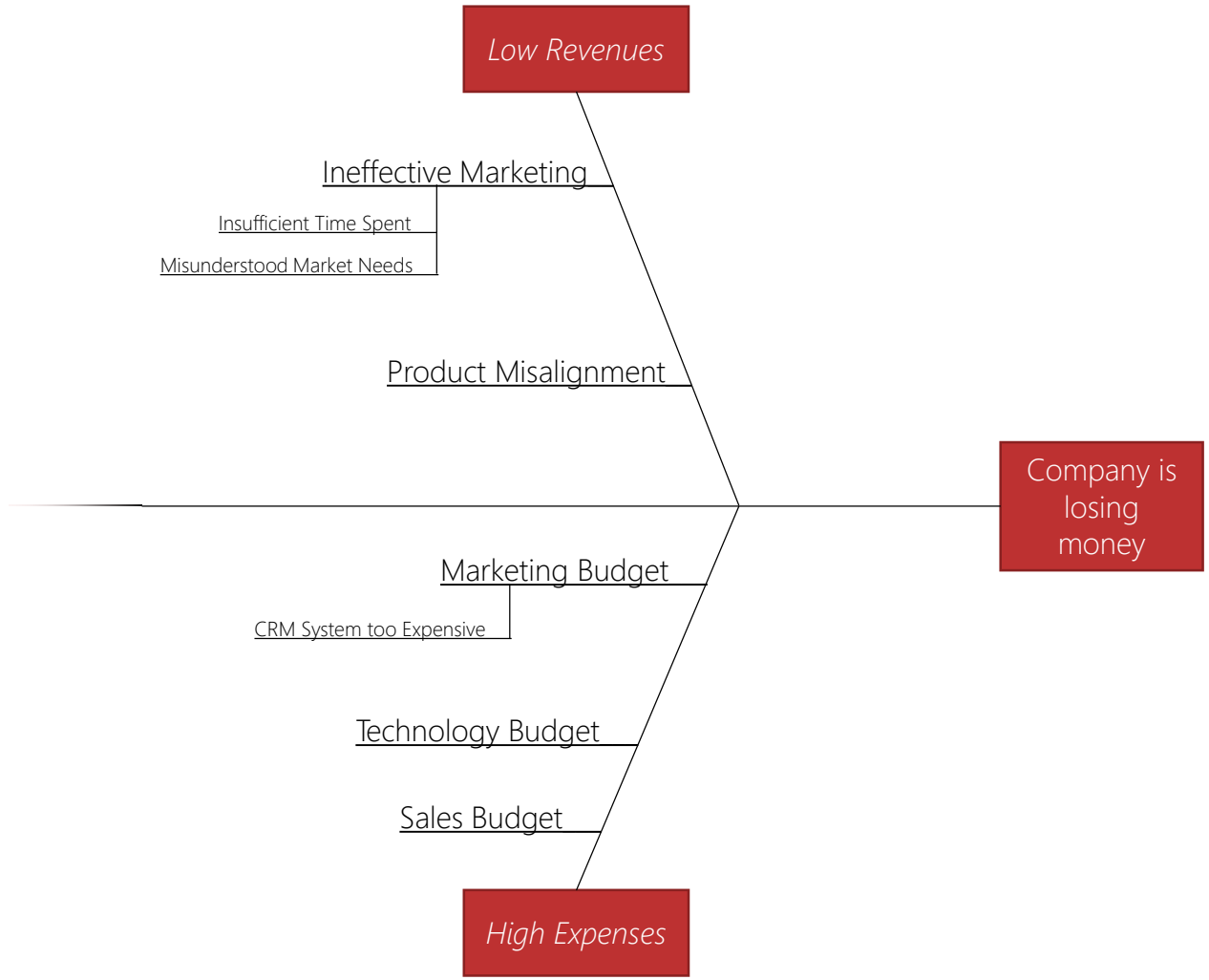


A Couple Guidelines

1 Validate your logic. Talk through it, e.g:

"…Because of ineffective marketing and product misalignment, the result is that we have low revenues. Is that right?"

2 People are not the problem. The *process* is the problem.

So focus on fixing the process.

Fundamentals of Business Analysis

Stakeholder Needs Analysis

Stakeholder Needs Analysis

This type of analysis helps you find solutions to stakeholder conflicts.

Four-question approach:

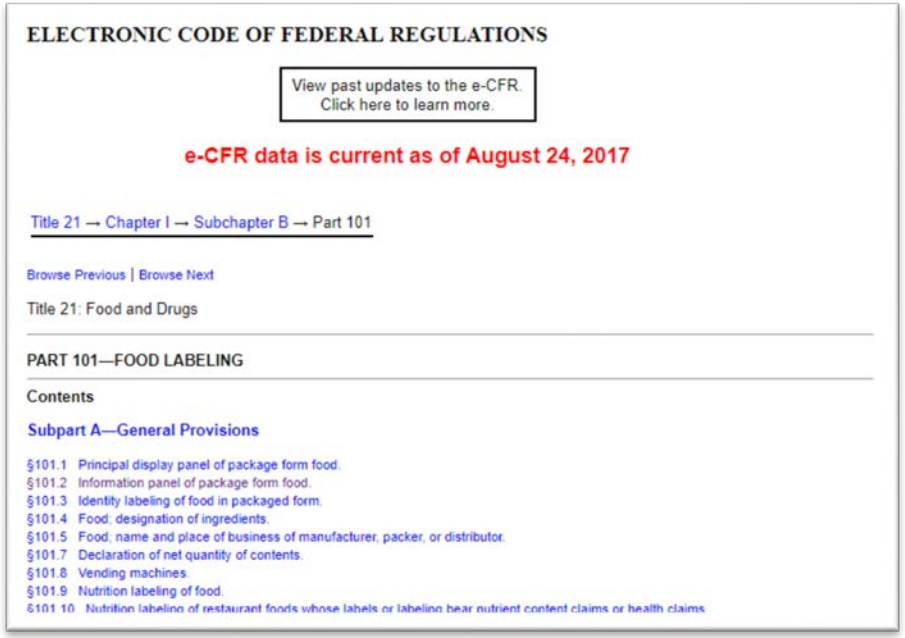
- What do they say they want?
- Why?
- What is the priority in their mind?
- What are their assumptions?

Stakeholder Needs Analysis

NorwalkAberdeen

Req ID	Requirement	Rationale	Source	Parent
FR-78	The Zoom-ade bottle will display the information panels in the following order: 1. Nutrition Facts 2. Zoom-ade logo 3. Ingredients	Customers care most about Nutrition Facts and least about ingredients.	Solomon Alffson, Product Manager	BR-7

No, you can't have the logo in the middle. It's against regulation.



ELECTRONIC CODE OF FEDERAL REGULATIONS

View past updates to the e-CFR. Click here to learn more.

e-CFR data is current as of August 24, 2017

Title 21 → Chapter I → Subchapter B → Part 101

Browse Previous | Browse Next

Title 21: Food and Drugs

PART 101—FOOD LABELING

Contents

Subpart A—General Provisions

§101.1 Principal display panel of package form food.
§101.2 Information panel of package form food.
§101.3 Identity labeling of food in packaged form.
§101.4 Food; designation of ingredients.
§101.5 Food; name and place of business of manufacturer, packer, or distributor.
§101.7 Declaration of net quantity of contents.
§101.8 Vending machines.
§101.9 Nutrition labeling of food.
§101.10 Nutrition labeling of restaurant foods whose labels or labeling bear nutrient content claims or health claims.

Stakeholder Needs Analysis

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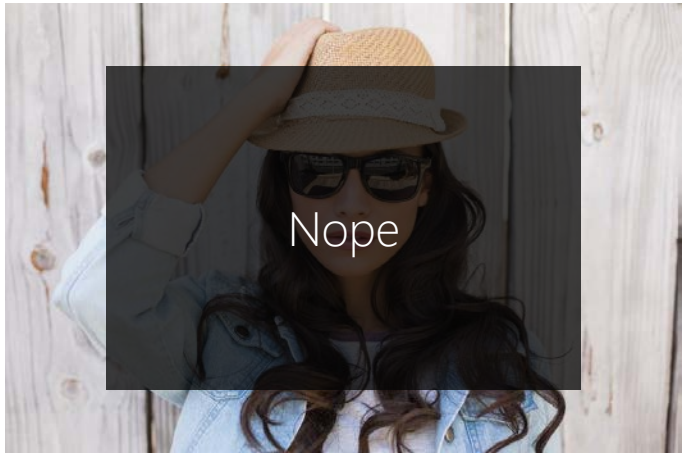
Question	Product team	Legal team
What does each party say they want?	The product team wants the package to have the elements in this order: 1. Nutrition Facts 2. Logo 3. Ingredients	Under US regulation, Nutrition Facts and Ingredients are required information, and they can have no intervening information (like the logo).
Why do they want that?	The product team believes the customers don't care about ingredients, and they want customers to immediately see the information that is most valuable to them. It's a better customer experience.	It's the law.
What is the priority of the need in the mind of the stakeholder?	Medium to Low	High
What are the stakeholders' assumptions, and are they valid?	• Customers don't care about ingredients. (Possibly invalid, no known data supporting this). • Customers actually care about the order in which the elements are placed. (Possibly invalid, no known data supporting this).	• Customers will be distracted by intervening information and pay less attention to the ingredients. (Probably valid). • Regulators will penalize the company if regulation isn't followed, and the penalty may be severe. (Probably valid).

Fundamentals of Business Analysis

Overview of Modeling

Modeling

What is modeling?



Think of it as some kind of depiction of a requirement or solution or process (etc).

Modeling

There are many different kinds.

Illustrative models (like prototypes)

Predictive models (like process simulations)

General purpose models (like flow charts)

(Etc, etc, etc)

Modeling

If you start to worry about the difference between modeling and analysis…

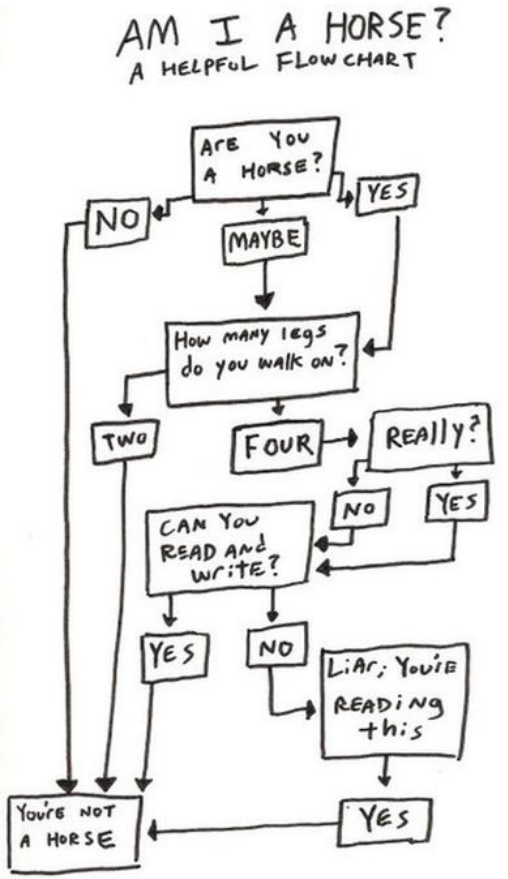
Don’t.

Fundamentals of Business Analysis

Flowcharts

Flowchart

A diagram showing a sequence of actions and decisions



Flowcharts

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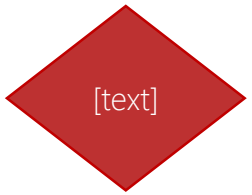
Rectangle: Step in a process



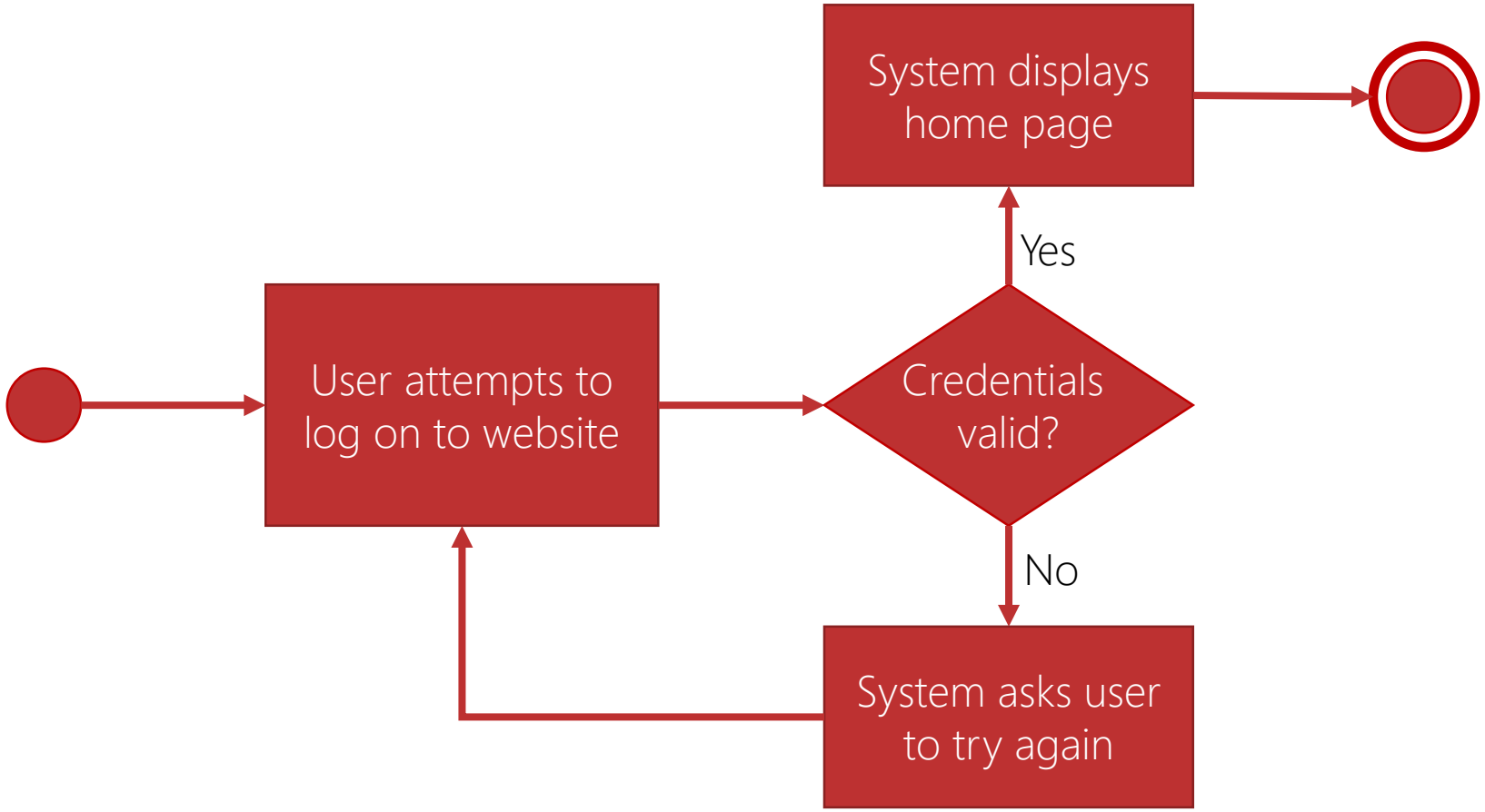
Diamond: Decision point

Start: Signifies the beginning of a flow

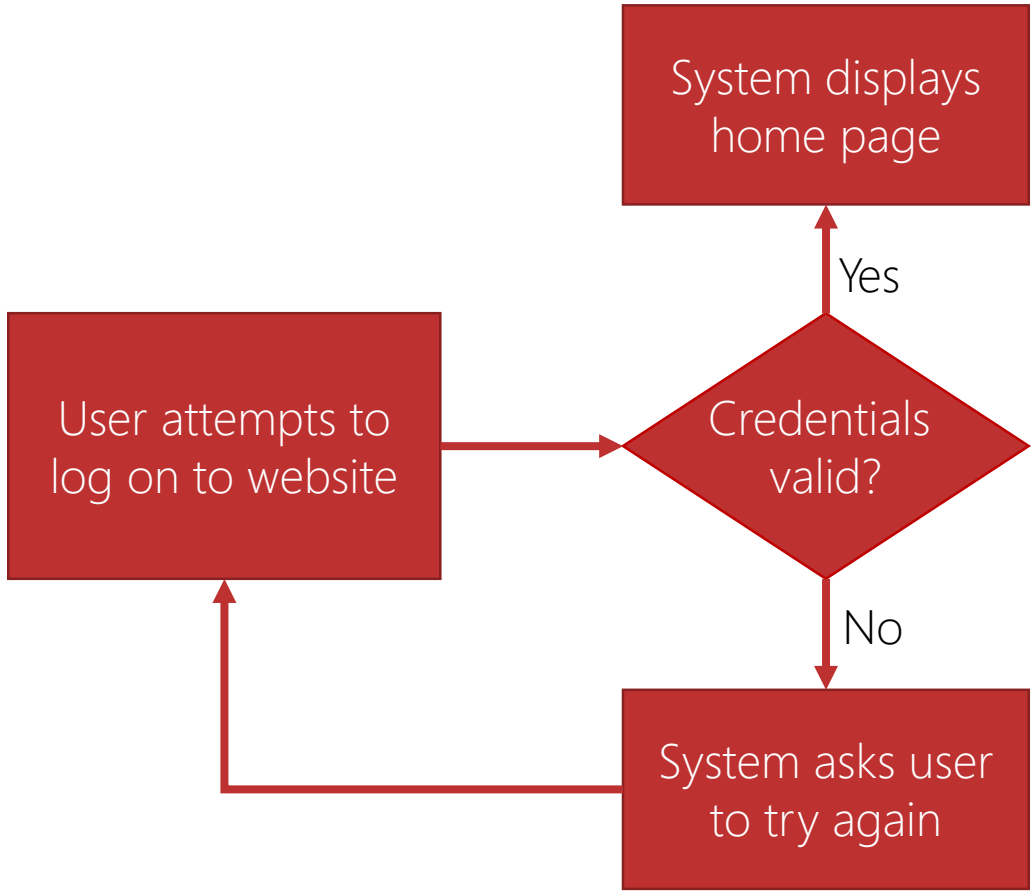
Finish: Signifies the end of a flow

Connector: Indicates flow between shapes

Flowcharts



Flowcharts



Flowcharts

FR-34	The system will enable a user to create an order request.
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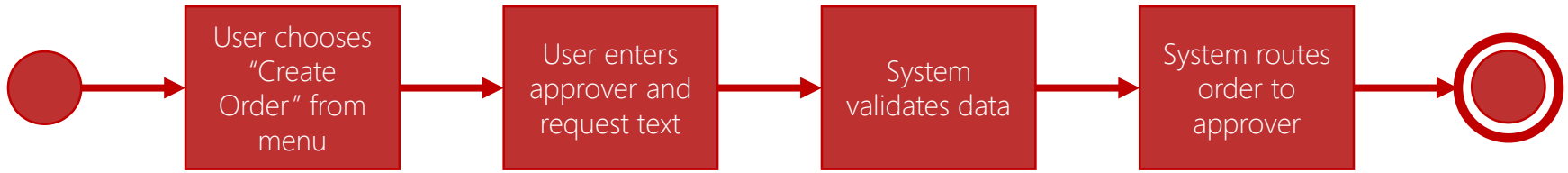
FR-36	To submit an order request, the user must enter the **approver** and **request text**.
FR-37	When the order is submitted, the system will validate the data entered in FR-36.
FR-38	After the order is submitted, the system will route it to the approver for review.



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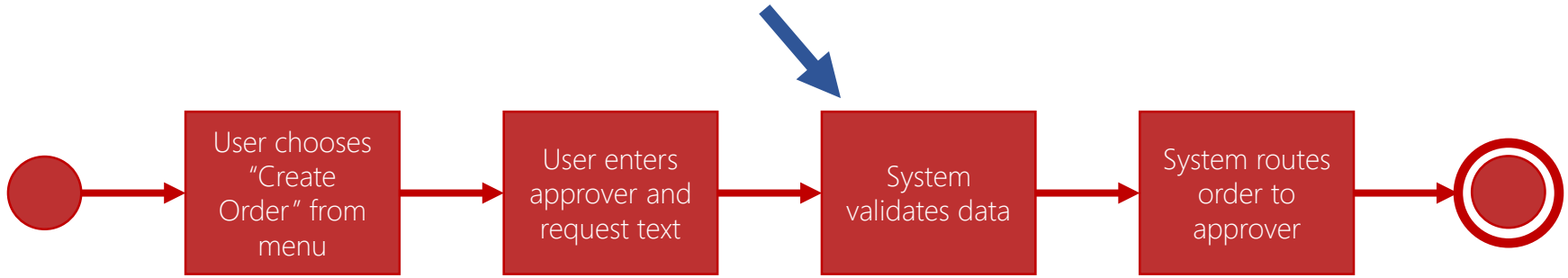

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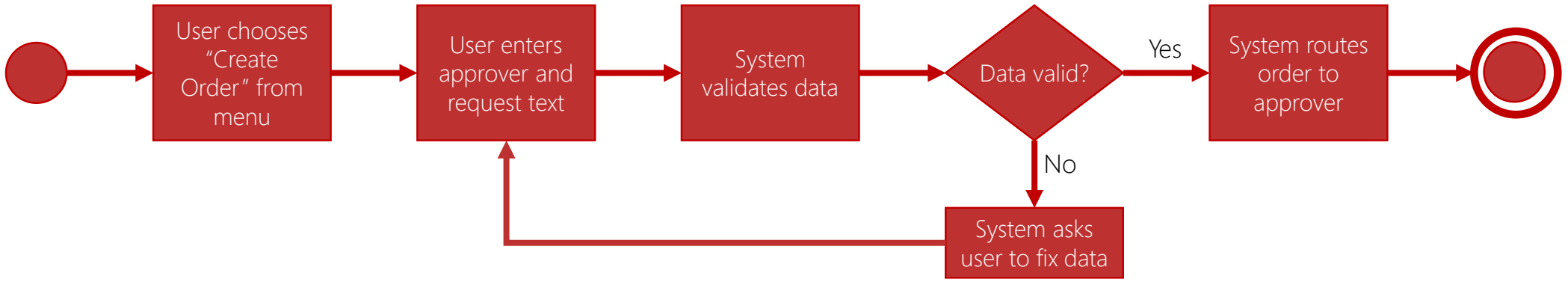

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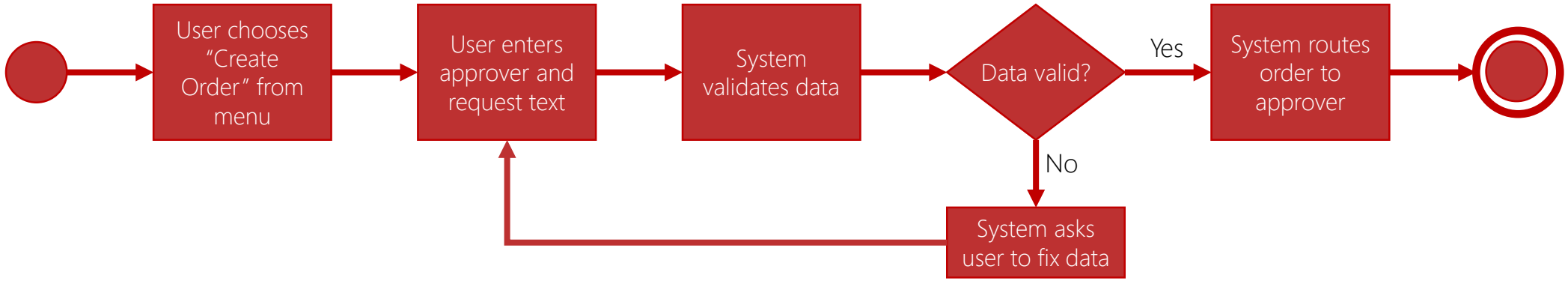

Fundamentals of Business Analysis

Swim Lane Flowcharts

Swim Lane Flowcharts

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Regular flowcharts have a problem.

When there are too many people and systems involved, they become difficult to manage.

Solution: Swim Lane Flowcharts

Swim Lane Flowcharts

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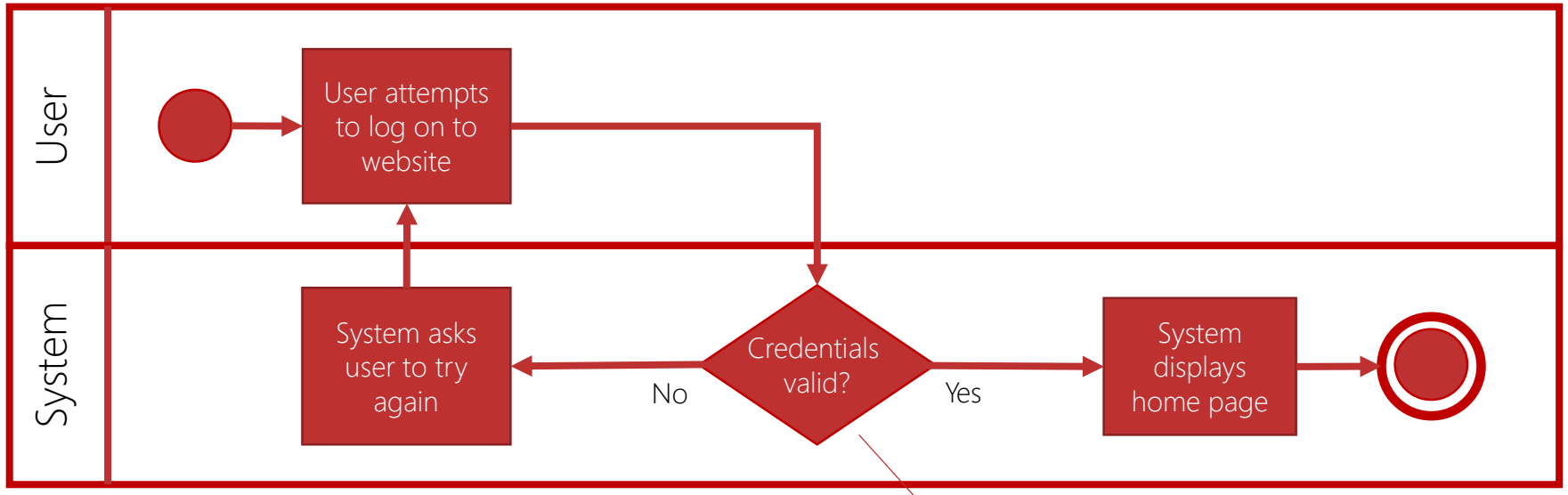
Swim Lane Flowcharts



If this diamond were in the user's swim lane, that would mean that *users* determine if the data they enter is correct.

Nope, the system needs to do that!

Swim Lane Flowcharts

Hmm… But which style of flowchart do you use when?

When you have…	Use a…
1 Actor (or it doesn't matter)	Regular flowchart
2 to 5 Actors	Swim lane flowchart
More than 5 actors	It's probably too complex. Try simplifying the model.

BTW, sometimes swim lane flowcharts are called "cross-functional flowcharts."

Swim Lane Flowcharts

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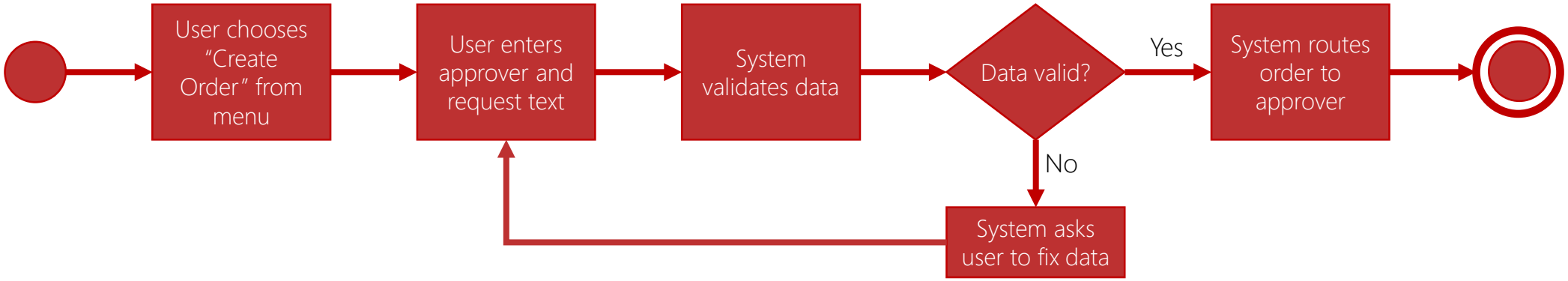

To-do: Extend this flowchart to show approver reviewing the order.

Actors: Requestor, System, Approver

Swim Lane Flowcharts

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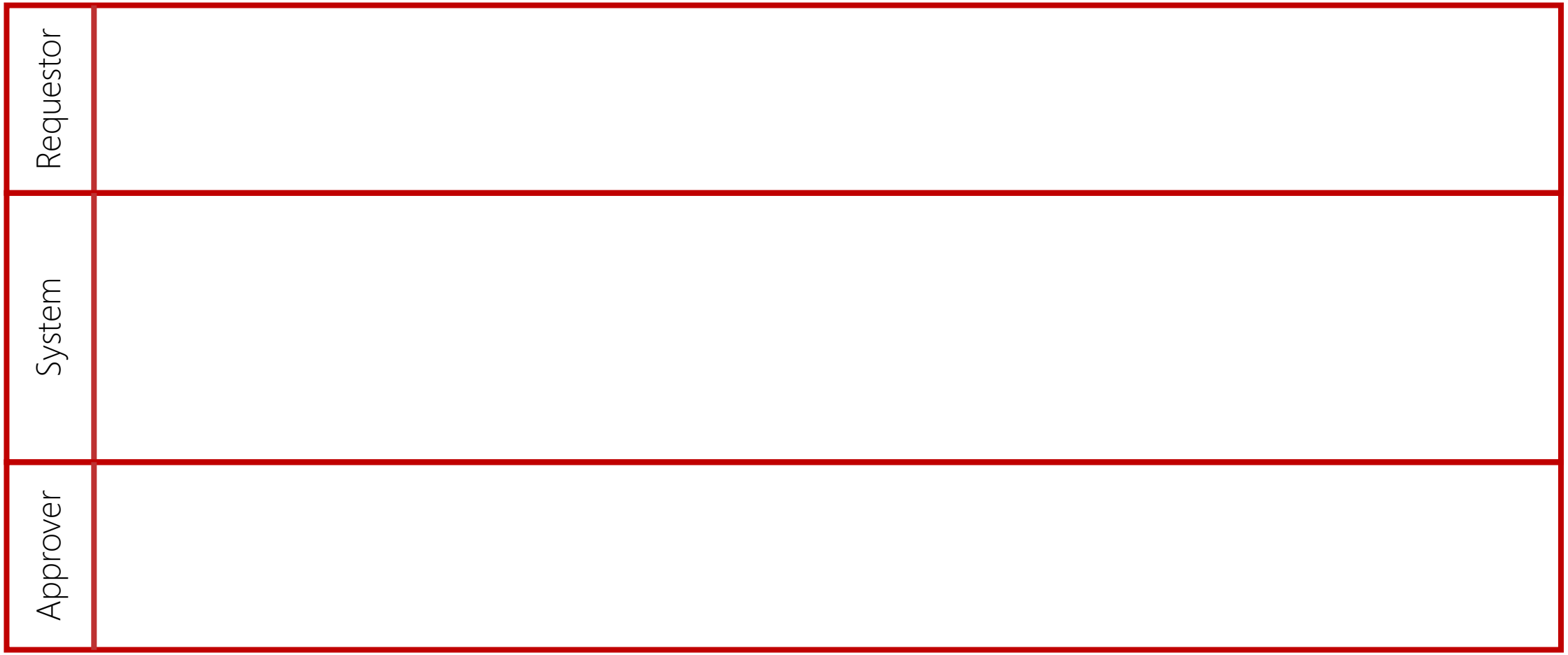

Swim Lane Flowcharts

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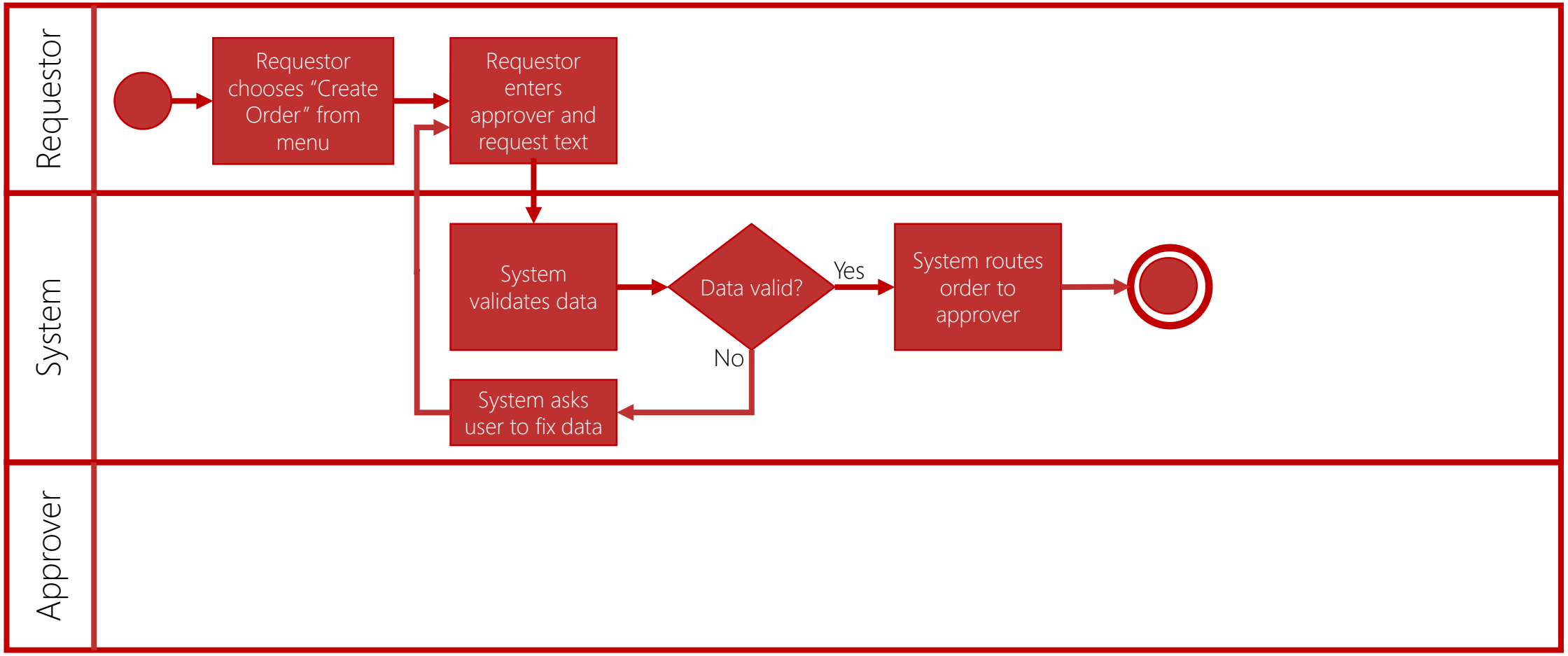

Swim Lane Flowcharts

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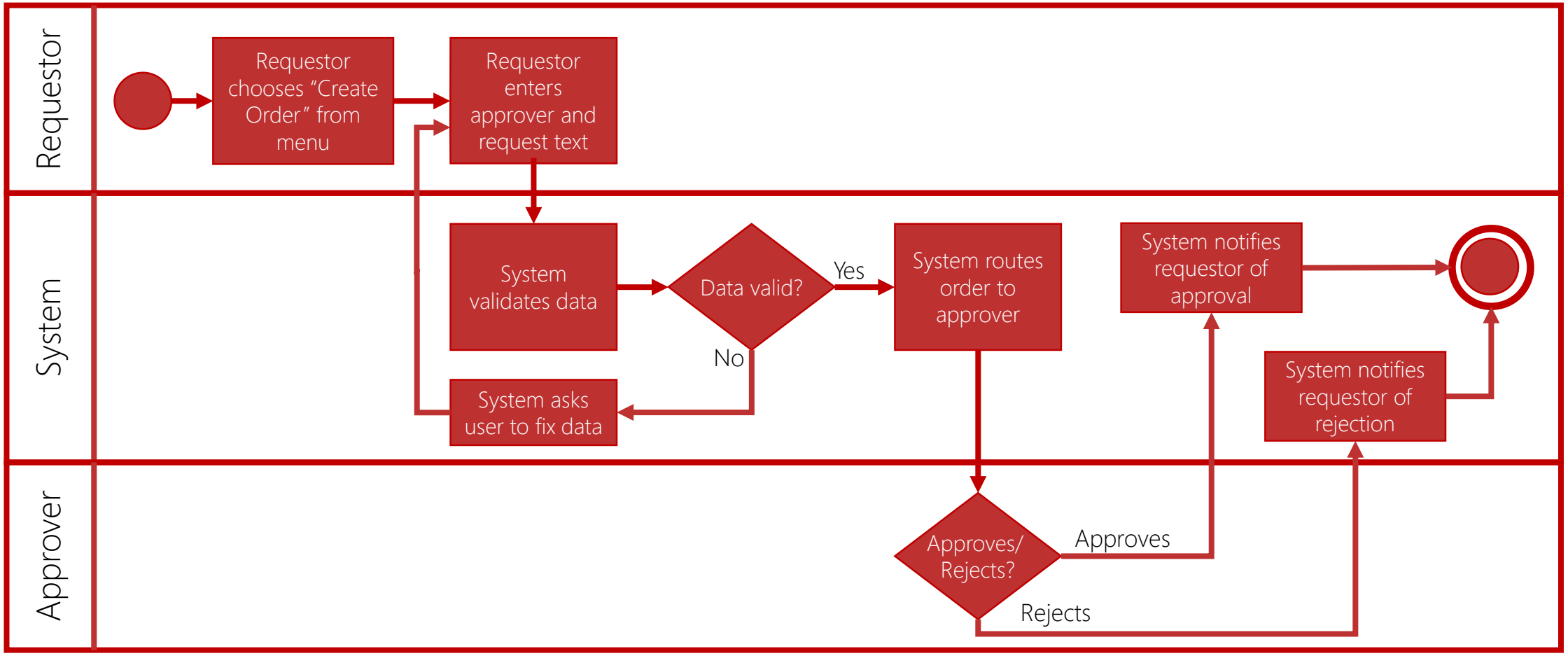


Fundamentals of Business Analysis

Entity-Relationship Modeling

Entity-Relationship Modeling

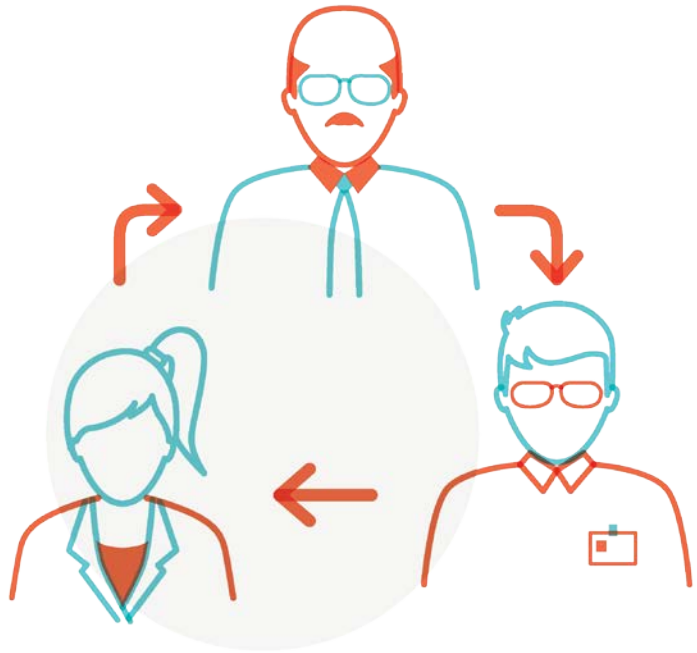
I am an employee.

I work for a company.

My company has various courses.

I teach some of the courses.

The courses have multiple students.

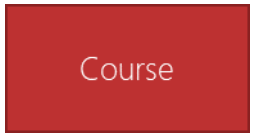


Entity-Relationship Modeling

Entity-relationship modeling helps us to understand how entities relate to each other.

And entities are just things.

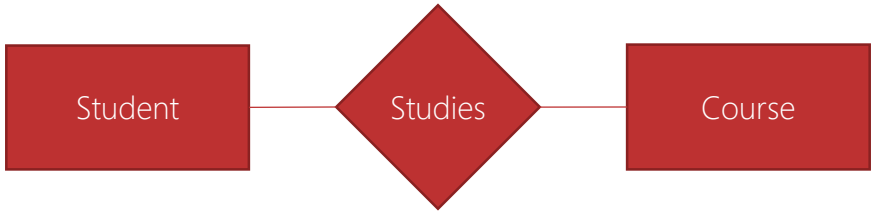
Entity-Relationship Modeling



Entity

Relationship

Entity-Relationship Modeling



Entity-Relationship Modeling

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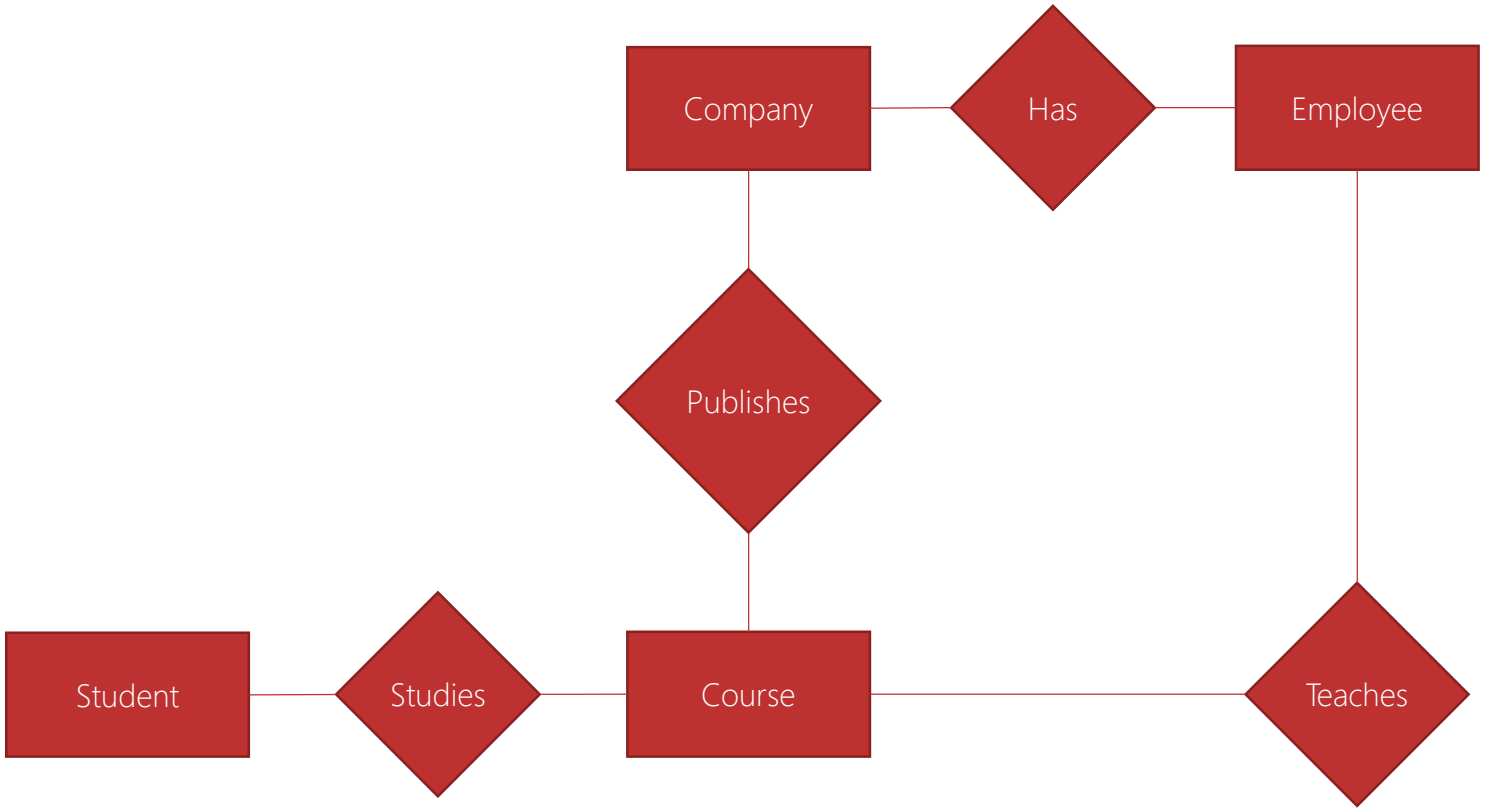
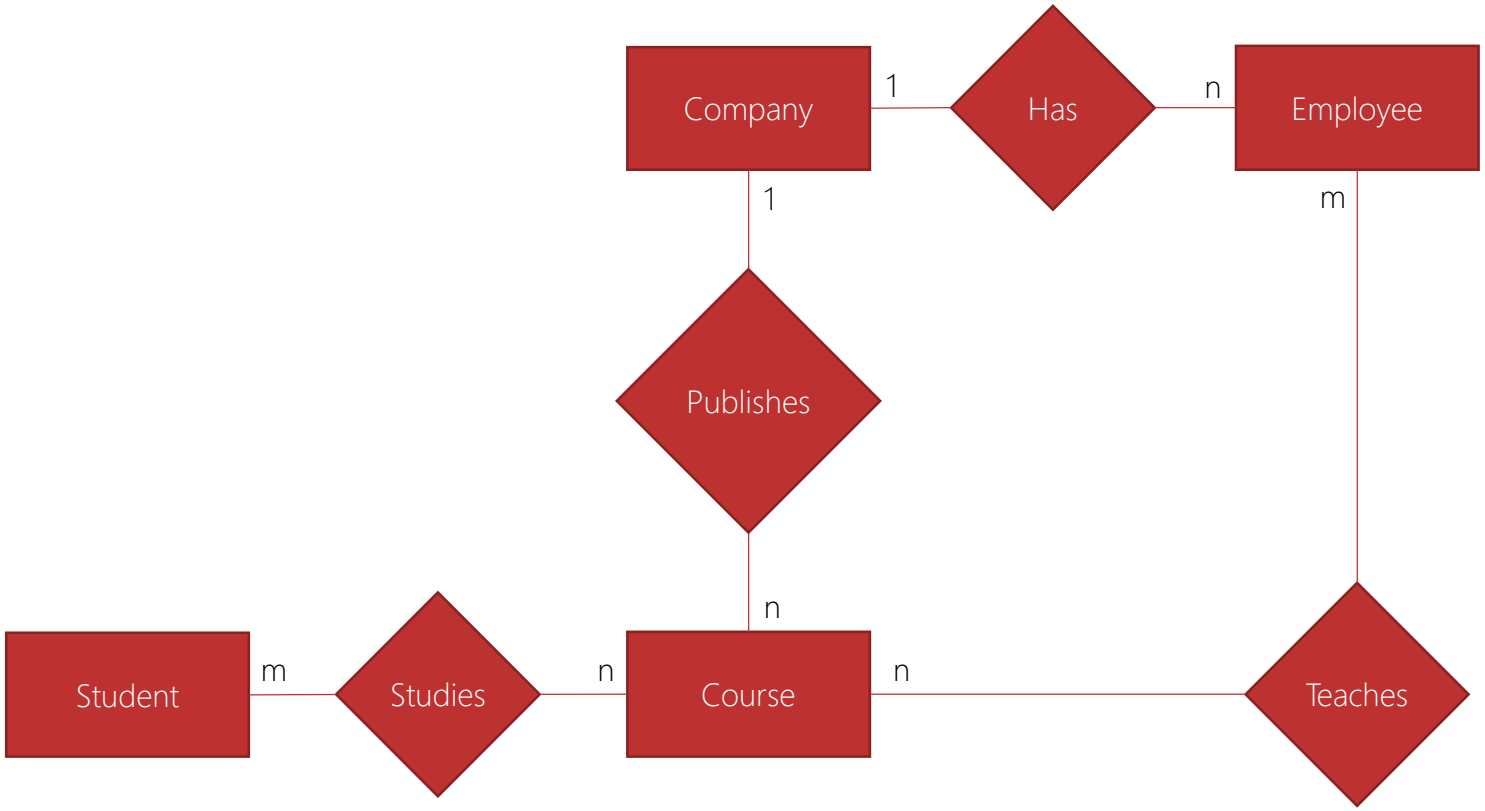


Cardinality

How many of one entity a related entity can have.

Entity-Relationship Modeling



Entity-Relationship Modeling

Here is the easiest way to get cardinality right.

How many students can study a single course?

Put the answer (1 or m) next to student.

How many courses can a single student study?

Put the answer (1 or n) next to course.

Entity-Relationship Modeling

There is one more component: the attribute.

They are ovals, like this.

Entity-Relationship Modeling

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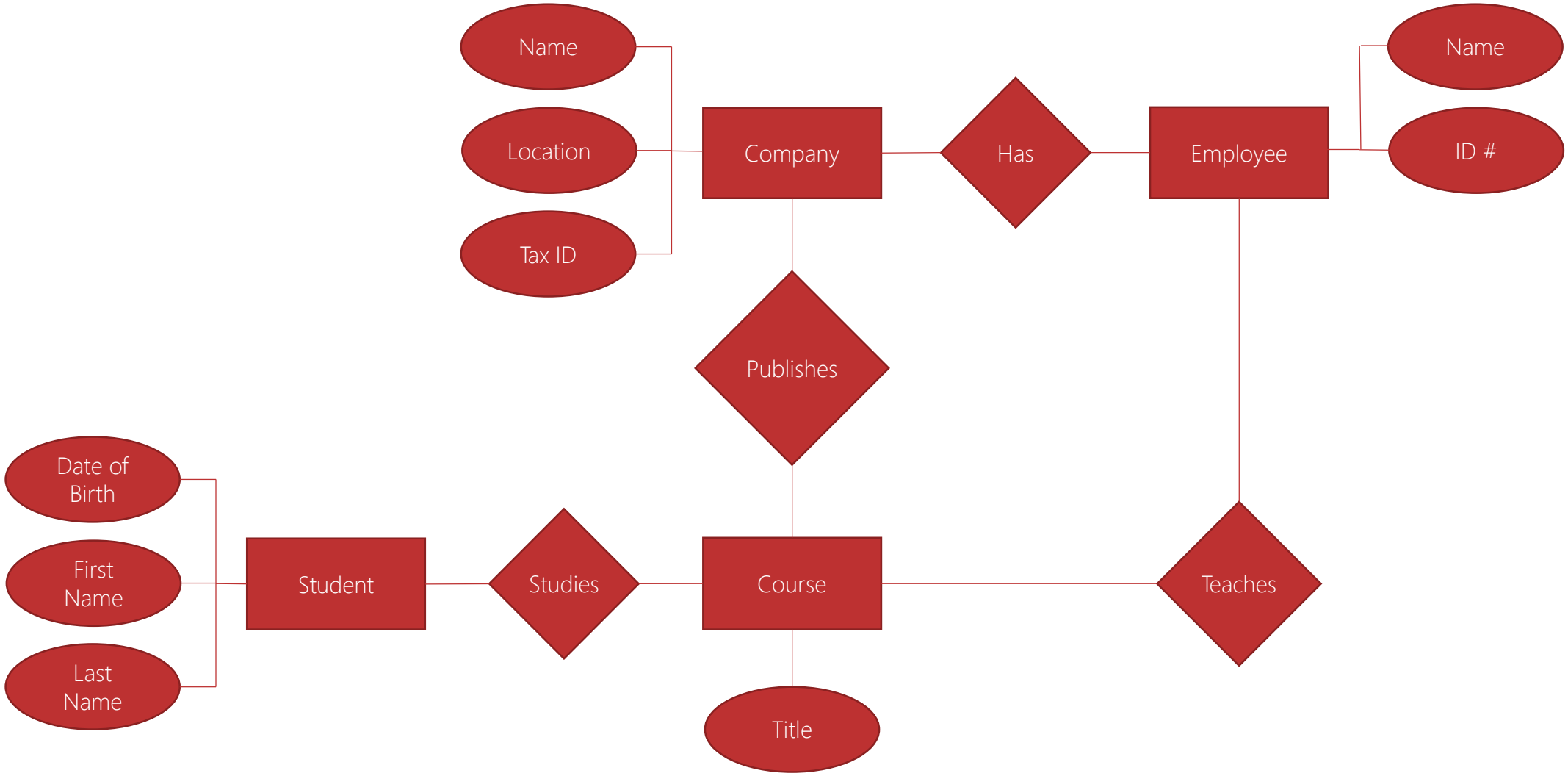
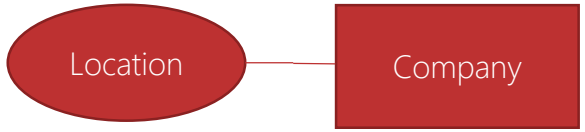


Entity-Relationship Modeling

When should something be its own entity (not just an attribute)?



If the attribute is simple (just text, in this case), it's an attribute.

If it's complex (street, city, state, country, etc), it should be an entity.

Fundamentals of Business Analysis

State-Transition Modeling

State-Transition Modeling

The lights are off.

You turn on the lights.

And now they're on.

You turn off the lights.

And they're off again.

State-Transition Modeling

A state-transition model illustrates how the state of an object can change and what transitions make it change.

An object's state is its status or phase.

State-Transition Modeling

State

Transition

Start State

Finish State

State-Transition Modeling

A silly-yet-effective way to remember which state is which.

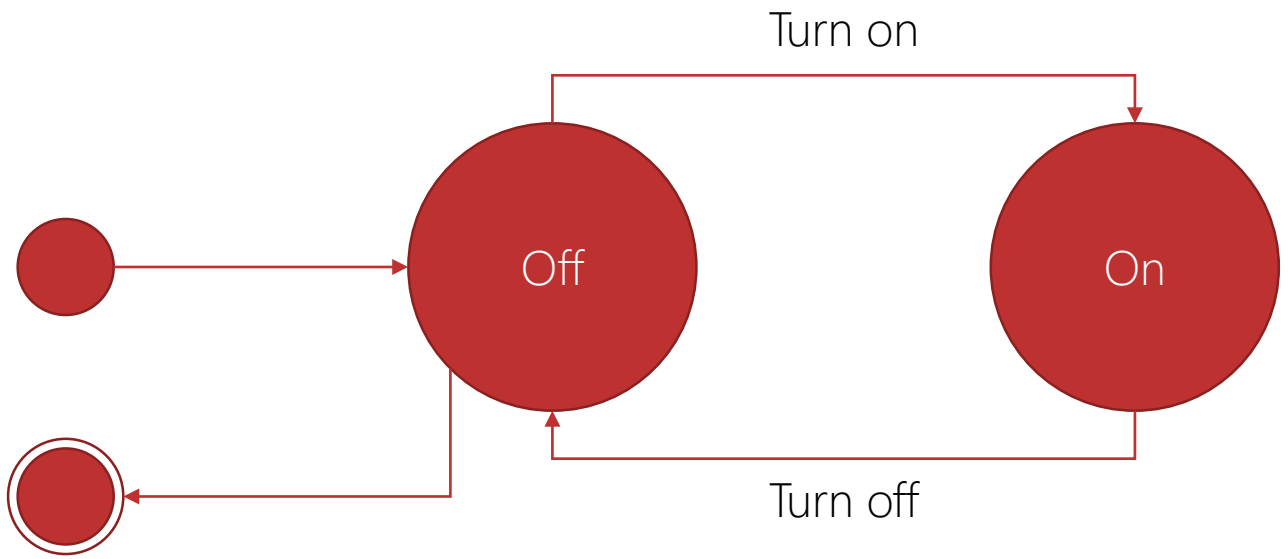
Little head like a baby

Big adult head

Head with a halo

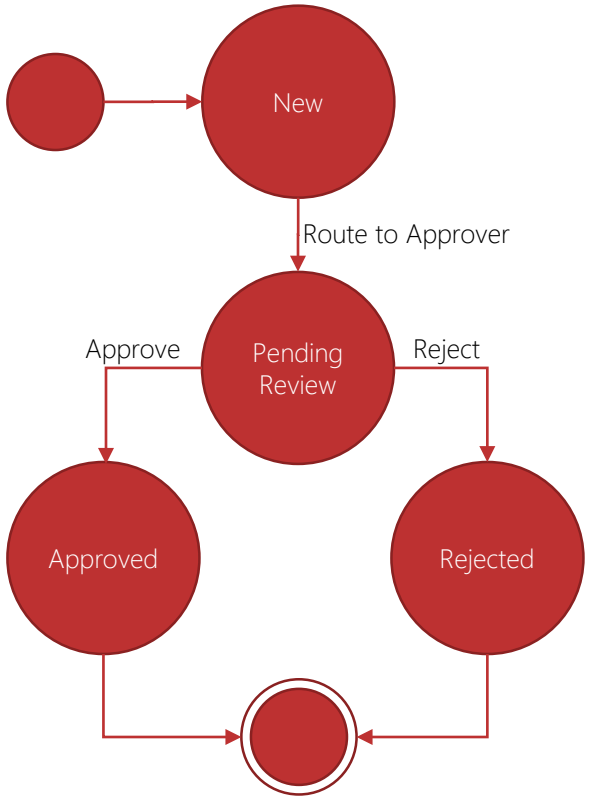
State-Transition Modeling

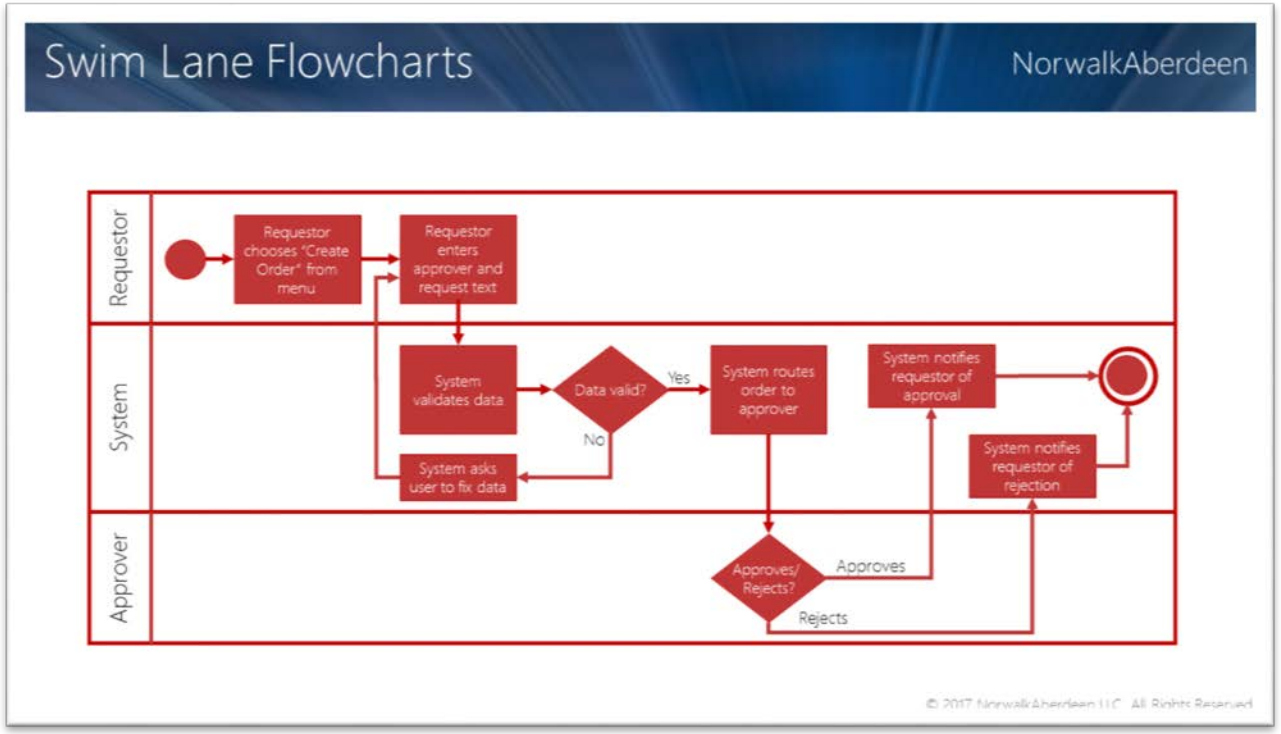
Example #1: The Light Switch



State-Transition Modeling

Example #2: An Order





Fundamentals of Business Analysis

Data Flow Modeling

Data Flow Modeling

DFDs illustrate how data flows through a system.

And it doesn't have to be a computer system. It can represent documents or anything else that represents data.

In this lecture, we are using the *Yourdon-Demarco* notation.

Data Flow Modeling

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Process

Input/Output

Data Store

Flow

Data Flow Modeling

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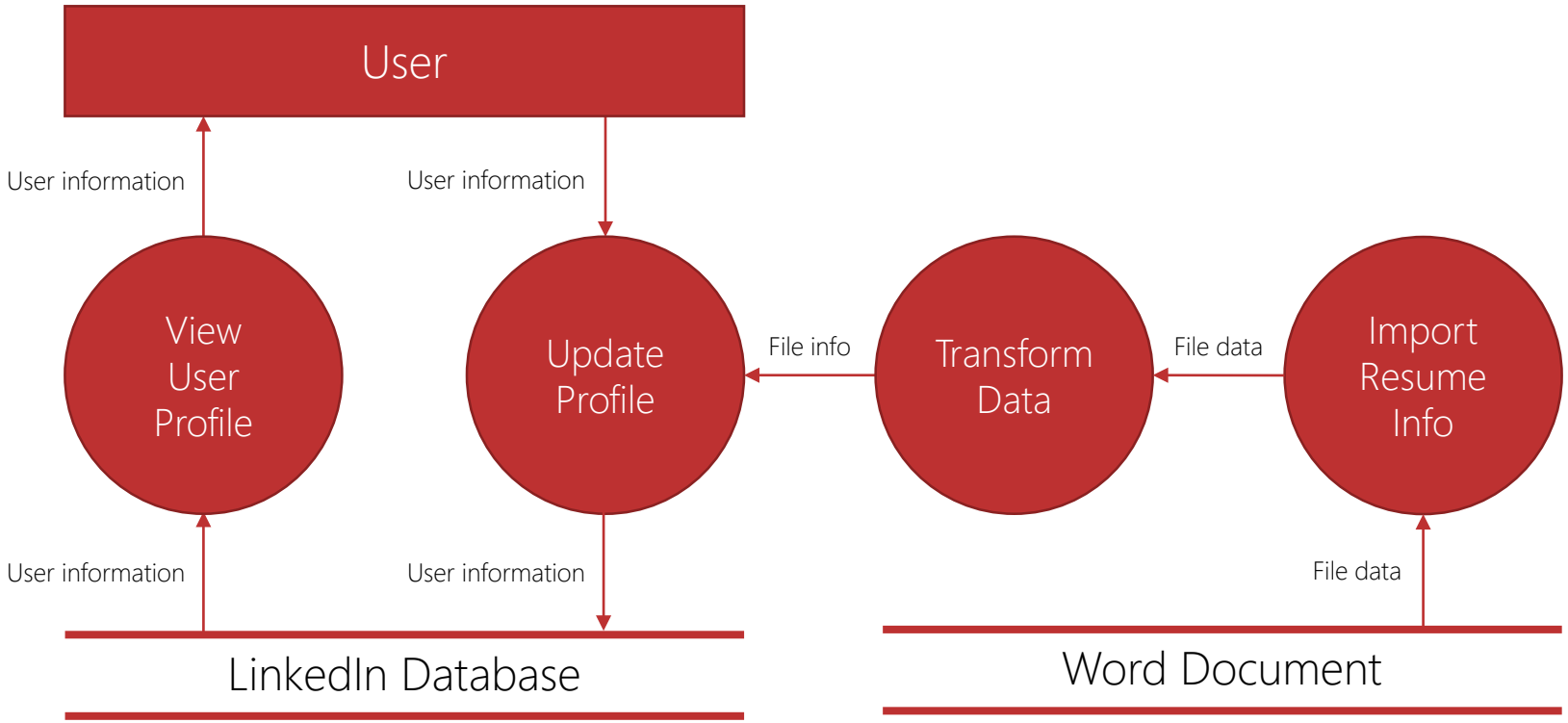
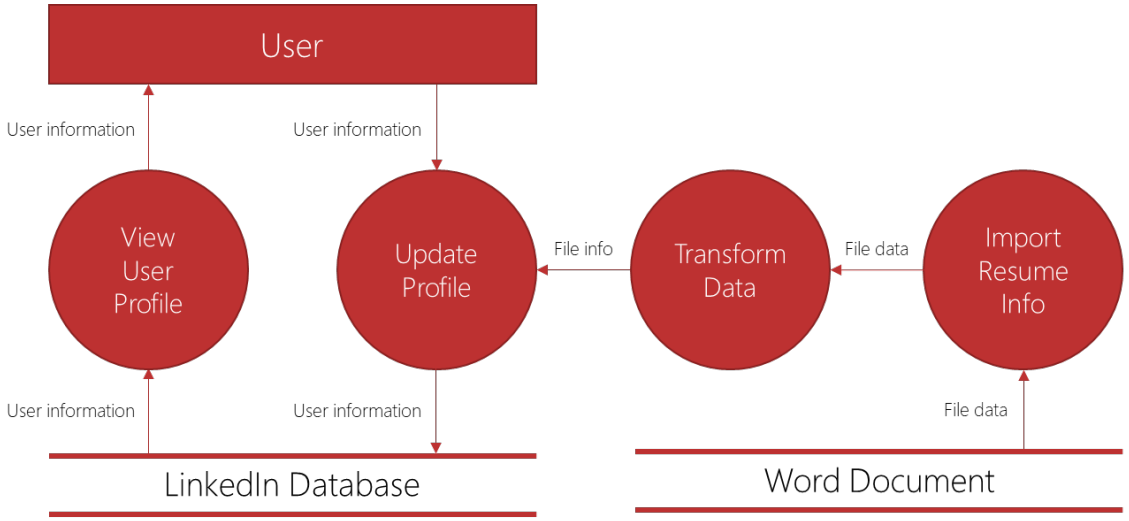


Data Flow Modeling

Rule: Only *processes* (circles) can flow data.

i.e. A flow always has at least one end touching a process.

Processes:
Accept data from an input
Send data to an output
Place data in a store
Retrieve data from a store
Do other processing



Data Flow Modeling

1 Label *everything*.

2 Keep DFDs *simple*.

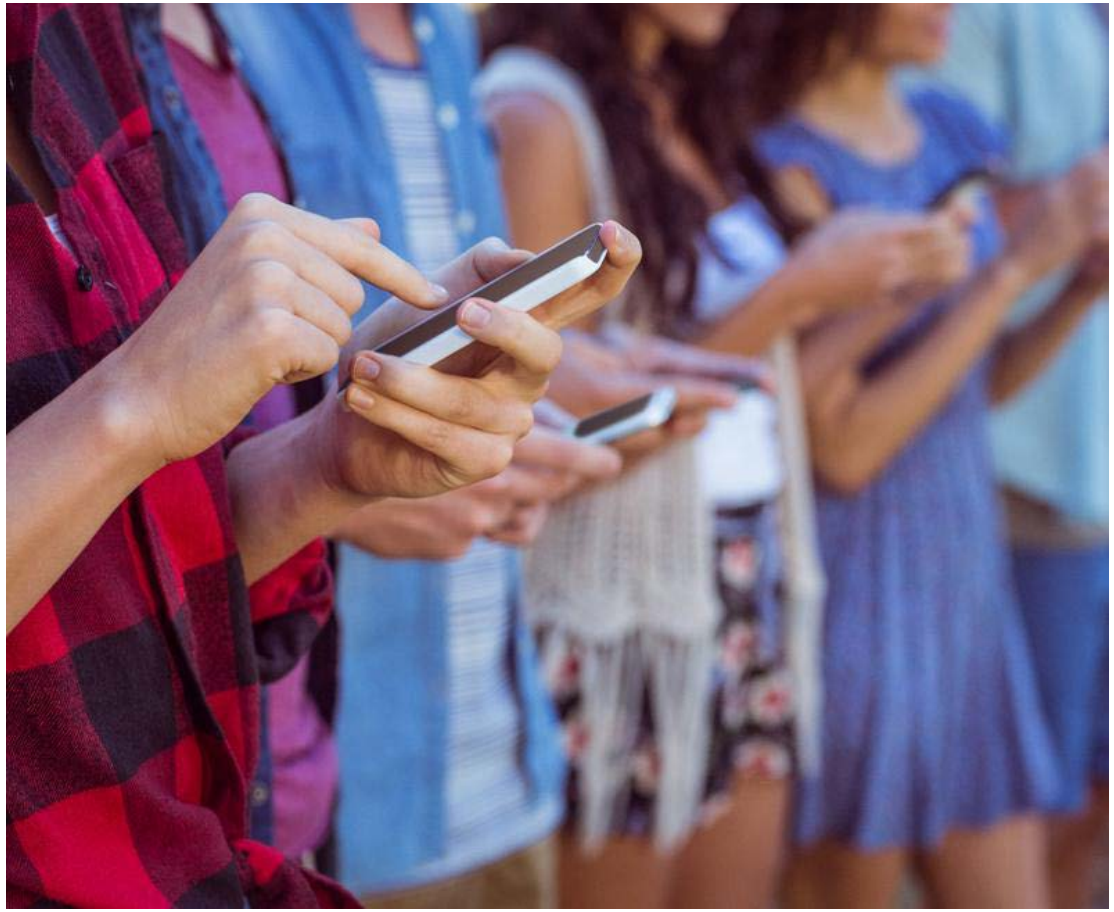
Fundamentals of Business Analysis

Use Case Modeling

Use Case Modeling

A big part of many projects is analyzing and modeling how people interact with systems.

The most common way to do this is use case modeling.



Use Case Modeling

A use case is a description of an interaction between users and systems.

Use cases provide a lot of value relative to the amount of work.

Create use cases whenever you have a project involving user interfaces or business processes (i.e. the vast majority of projects).

In this lecture, we'll cover both textual and visual use case modeling.

Use Cases

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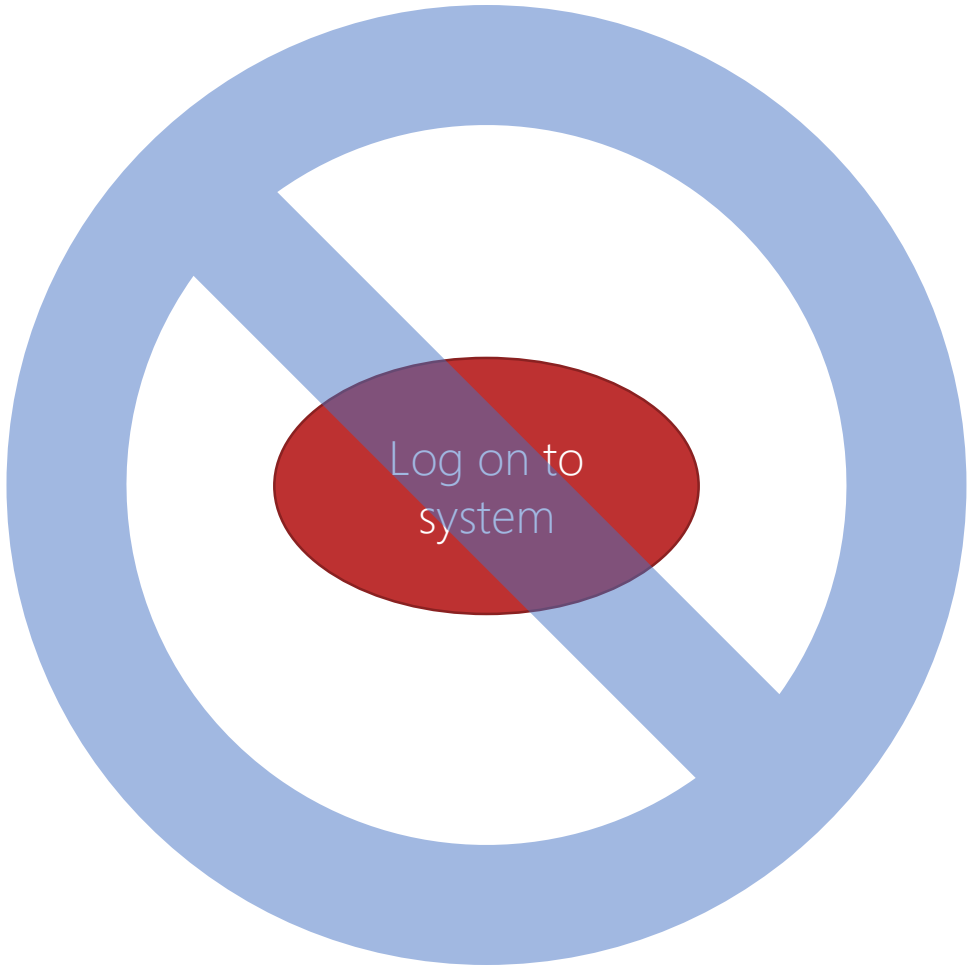
Use Case ID	UC-1
Title	Log on to system
Description	This use case describes the process by which a user logs on to the Sports Beverage Tracking System.
Actors	User, System
Pre-Conditions	The user has an active profile set up in the system. The user is not currently logged on to the system.
Post-Conditions	The user is logged on to the system.
Basic Flow	BF-1: User navigates to the Sports Beverage Tracking System. BF-2: System displays the logon interface. BF-3: User enters their user name and password. BF-4: System validates user name and password. BF-5: System displays home page.
Alternate Flow(s)	*Invalid User Name/Password:* In step BF-4, if the user name and password combination is not valid, the system will prompt the user to re-enter their credentials, and then return to step BF-3.

Use Case Diagrams



Use Case Diagrams

My own experience…

I've written use cases for around 80% of the projects I've run.
The average project has had 10-15 use cases.
Some projects have had more than 50 use cases.
The vast majority are more complex than what you saw earlier.

The solution to managing all this complexity that comes up is the… use case diagram.

Use Case Diagrams

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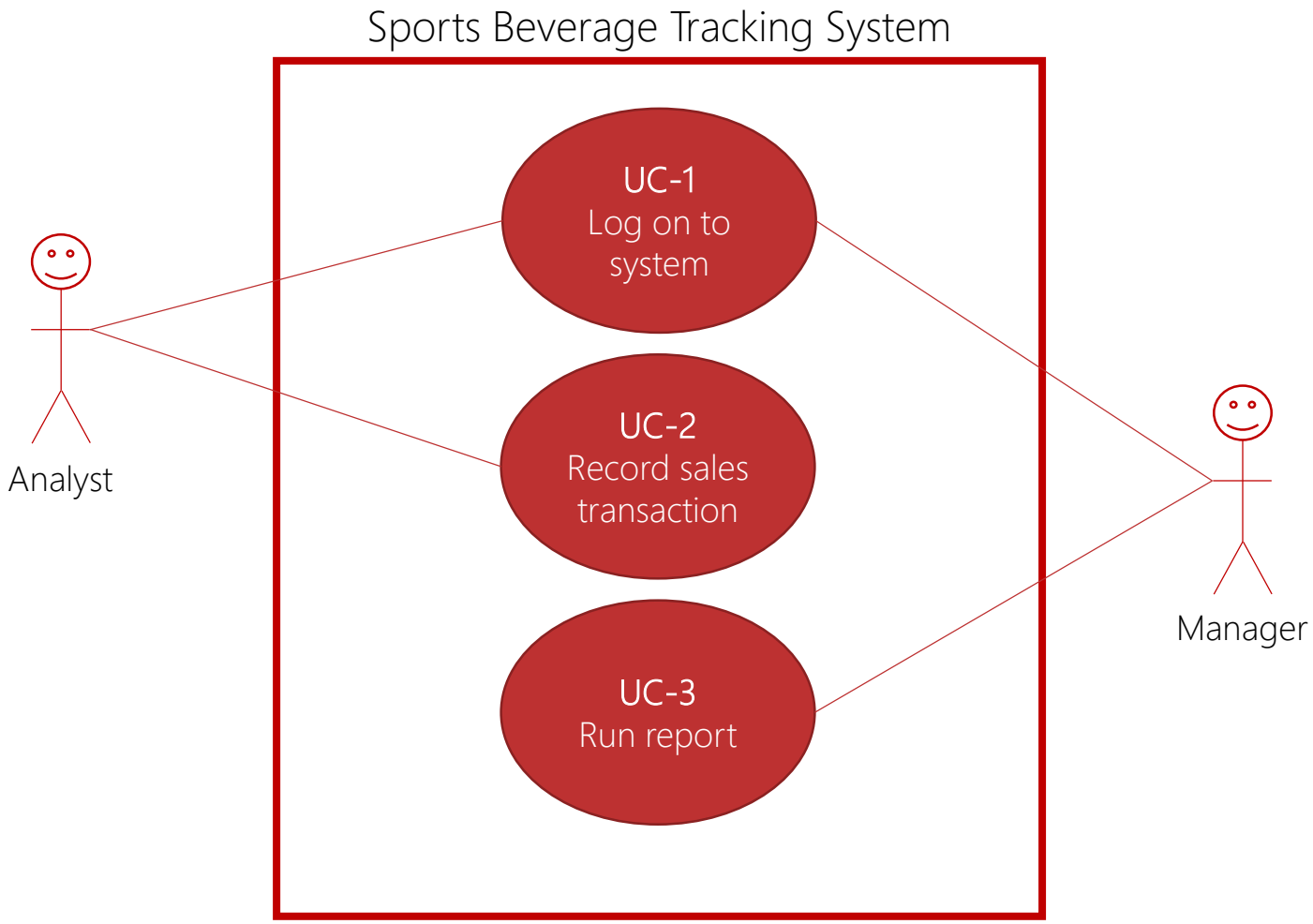


Fundamentals of Business Analysis

Business Process Modeling

Business Process Modeling

You participate in business processes every day.

You might be part of the Amazon fulfillment process.

You might be part of an ATM withdrawal process.

And you have certainly been part of this course's registration process.

Business Process Modeling

Business Process

A series of activities *repeatedly* and *uniformly* executed by an organization to achieve some *goal*

Examples

Opening a customer account
Accepting a customer deposit
Mailing an account statement

Not Business Processes

Reviewing e-mail
Conducting a meeting
Entering data into a system

Business Process Modeling

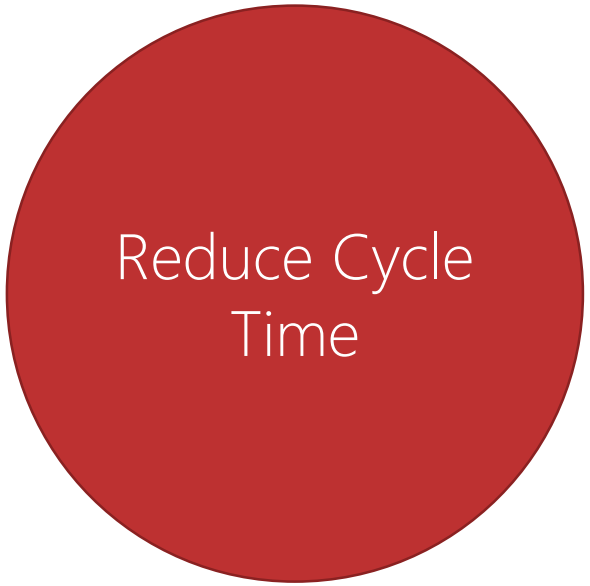
Reasons to model processes

1. To *create* a new process
2. To *improve* a process (“business process improvement”/BPI)
3. To *reengineer* a process (“business process reengineering”/BPR)

Business Process Modeling

Three big goals

(Make it cheaper)



(Make it faster)

(Make it better)

Business Process Modeling

Components

Actors	People and systems
Activities	Steps in the business process
Tools	Equipment and other objects
Information	Data (electronic or *non*-)

Business Process Modeling

We started all this discussion of modeling with small stuff like flowcharts. And the methods have gotten bigger, as we've moved along.

BPM is the biggest modeling area we're covering, and we are going to cover it in a big way… with a high-level scenario of how the whole thing works.

Scenario: A bank opening a new customer account

Business Analyst

"Can you tell me about the account opening process?"

Bank Teller

"Sure. When the customer comes into the branch, they speak with me or one of my colleagues. They provide us with the documentation necessary to open the account. Then we open the account on the Accounts System. Then we take their deposit, and we provide them with a temporary debit card. And then after a week or so, they get their regular debit card in the mail."

Bank Teller

"Sure. When the customer comes into the branch, they speak with me or one of my colleagues. They provide us with the documentation necessary to open the account. Then we open the account on the Accounts System. Then we take their deposit, and we provide them with a temporary debit card. And then after a week or so, they get their regular debit card in the mail."

1. Customer asks Teller to open account
2. Customer provides documentation to teller
3. Teller opens account on Accounts System
4. Teller accepts deposit from Customer
5. Teller gives temporary debit card to Customer
6. Bank mails regular debit card to Customer

Business Process Modeling

Business Analyst	Bank Teller
Are accounts only opened in the branch?	"Right now, you can only open an account in the branch, but most banks let you open accounts online, and I don't know why we don't let customers do that."
How do you know which documents are required?	"We have a checklist. It depends on the type of account the customer wants to open."
What do you do with the documents?	"I start a file folder for each account I open and put the documents in that, and we keep those files in the filing cabinet in the back."
Can you show me how to open an account?	"Sure, watch this…"
What forms of deposit do you accept?	"For the first deposit, we accept checks, cash and money orders. After the account is opened, customers can do electronic transfers."
How do you know which temporary debit card to give to the customer?	"We just take one out of the temporary card box. When we open the account on the system, we record their temporary card number."
Who mails the regular debit card?	"Um… well… I know the back office does that, but we don't get involved in that here in the branch."

Business Process Modeling

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Actors:	Bank Teller, Customer, Back Office, System
Activities:	1. Customer requests new account.
	2. Teller determines type of account.
	3. Teller determines documentation required.
	4. Customer gives documentation to Teller.
	5. Teller creates account on Accounts system.
	6. Customer gives deposit to Teller.
	7. Teller gives temporary debit card to Customer.
	8. Teller files customer documentation.
	9. Back Office mails regular debit card to Customer.
Tools:	Documentation checklist, customer file, file cabinet, temporary debit card, regular debit card
Information:	Customer documentation, temporary debit card number

Business Process Modeling

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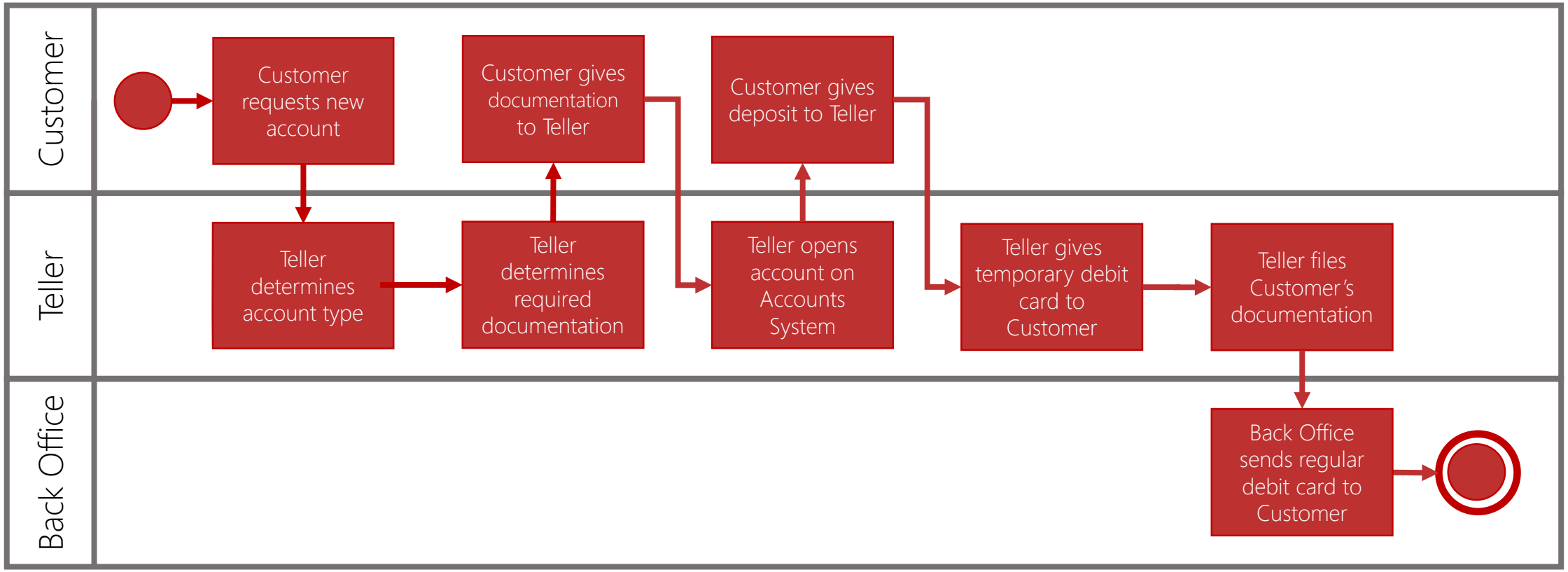

Business Process Modeling

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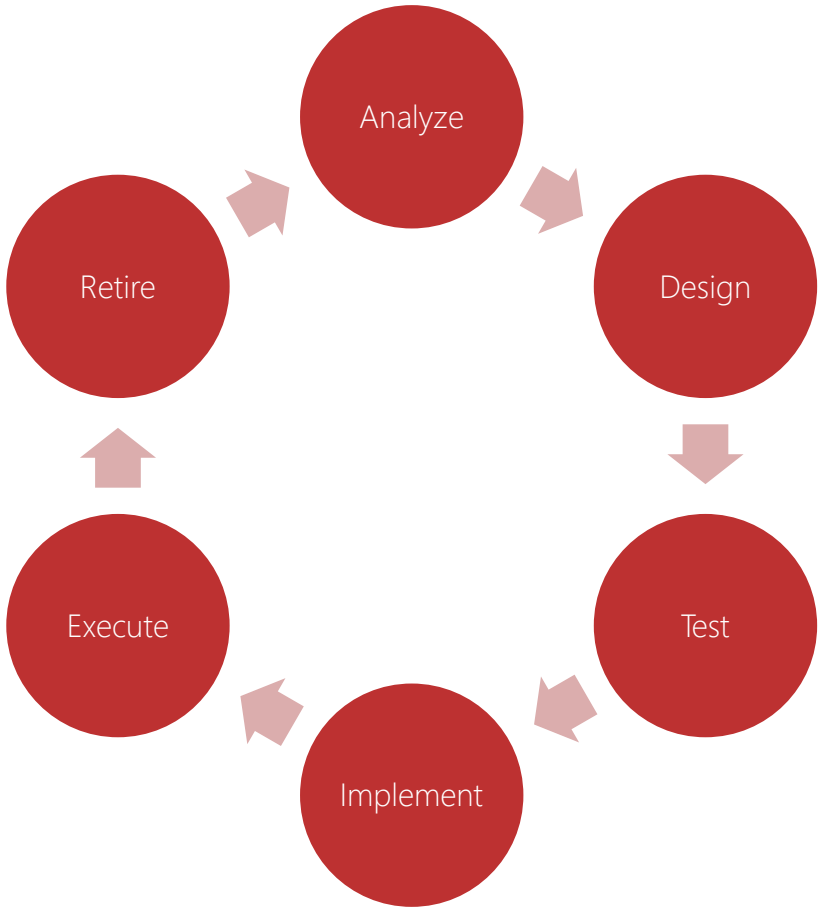
Process Lifecycle



Fundamentals of Business Analysis

Notations: UML and BPMN

Notations: UML & BPMN

These two topics are too advanced for this course.

So, *don't worry* about them; just know what they are.

Notations: UML & BPMN

UML is the **Unified Modeling Language**.

Standardized diagramming notation for techies

Typically used in object-oriented analysis and design

As a BA, you won't need to create the majority of the diagrams.

And you already know how to create the minority that you'll need:

- State-Transition Diagram
- Use Case Diagrams

Notations: UML & BPMN

BPMN is the **Business Process & Model Notation**.

Standardized diagramming notation for business process modeling

It looks a lot like swim lane flowcharts.

We cover BPMN in depth in our Intro to Business Process Modeling course (check out the section resources for link + discount).

Modeling in General

Get lots of input.

Just because you created a model doesn't mean you have to show it to your stakeholders.

Expect all diagrams and models to need an explanation.

Give yourself a pat on the back.

You're done with Section 5 on Transforming Requirements!
(actually, you will be after the quiz)