

# Mind the Gap

Going from UX design specs  
to successful implementation

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**MIND THE GAP**

**ICS**

# ICS

ICS blends art, engineering and technology to build powerful applications to engage your audience.

ICS is the largest independent source of Qt expertise in North America.

ICS has now expanded our European presence to provide integrated custom software development.



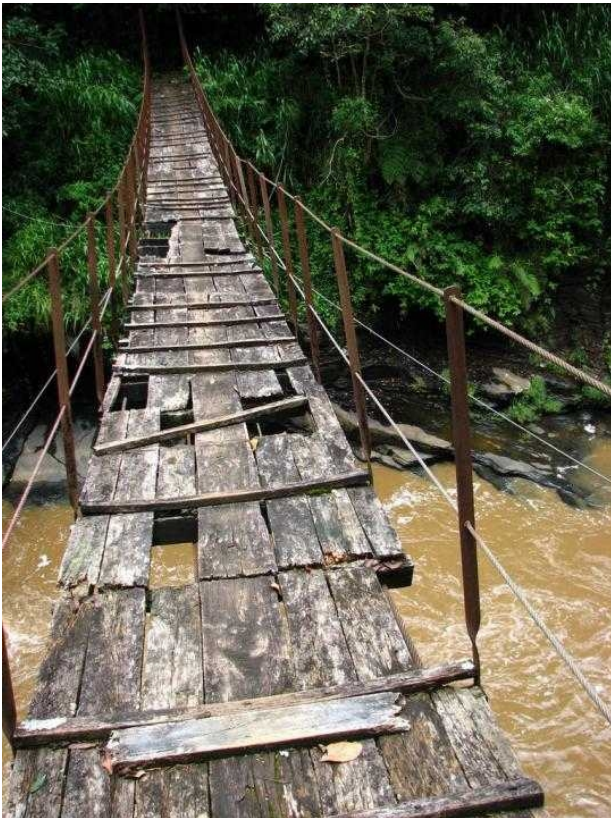
# Mind the Gap

Going from UX design specs to successful implementation



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# How to achieve a successful UX implementation?

## Mind the Details

“You know my method, Watson. It is  
founded upon the observation of  
trifles.”

-Sherlock Holmes

# Paradigm shift in behavior

## Mind the Priorities

- UX First
- OR
- UX is the priority
- Design first
- Develop UX up front

# Contents

- The Science of Collaboration
- The Art of Spec Reading (and Writing)
- The Philosophy of Patterns
- The Theory of Ownership

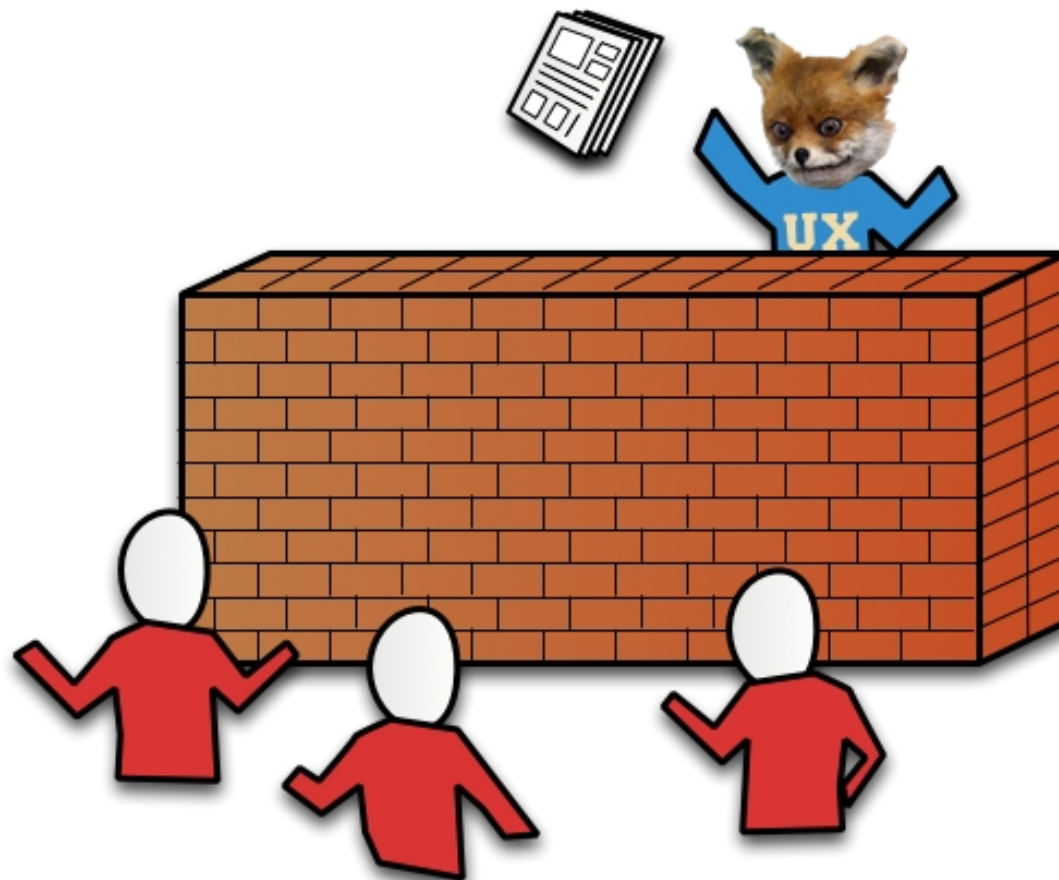
# Questions

- **The Science of Collaboration**
  - Why do designers always change their minds?
- **The Art of Spec Reading (and Writing)**
  - Why are specs never done?
- **The Philosophy of Patterns**
  - Do I really have to tweak pixels?
- **The Theory of Ownership**
  - I own the code so don't I own the UX?



# Collaboration





# Let's Collaborate

- Respect each other
- Communicate
- Etc.

~~Filmmaking~~ UX is a miracle of collaboration.

-James McAvoy

# Key - The Structure of Collaboration

- Kickoff meeting where the UX team introduces the specs to the development team
- Tasks specified as functional descriptions or user stories; check off as completed
- Regular, weekly meetings where the application is reviewed, questions are raised, and status of tasks is annotated, requests are made for changed or added mockups

# The Clincher

- How to slice the tasks - the order and size of tasks - should be carefully chosen

# The Way of Development, part 1

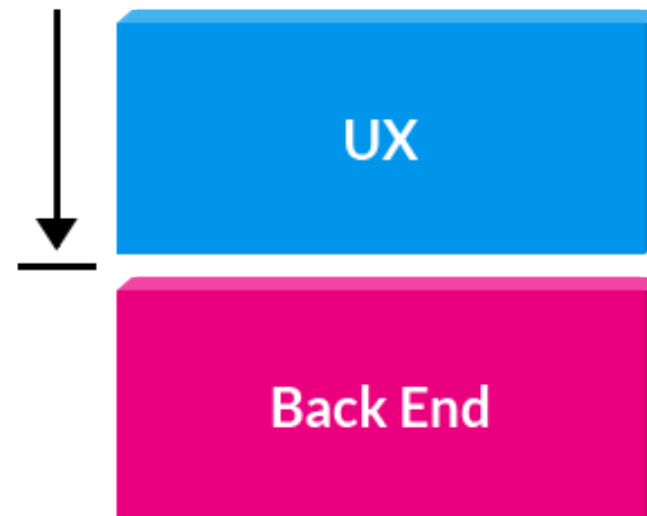
## OLD STYLE

Solid backend with thin, added on UX

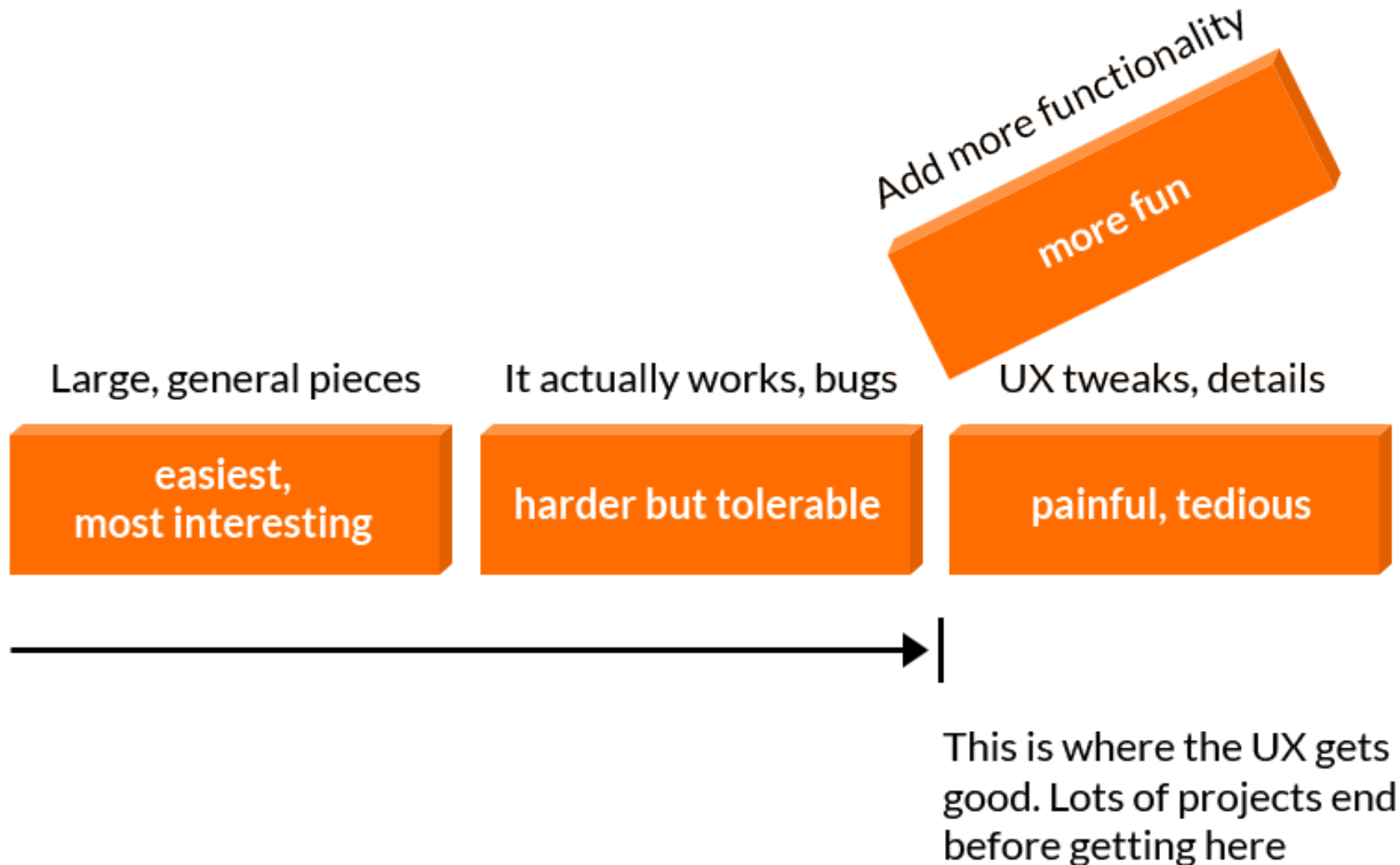


## NEW STYLE

More attention to a robust UX



# The Way of Development, part 2

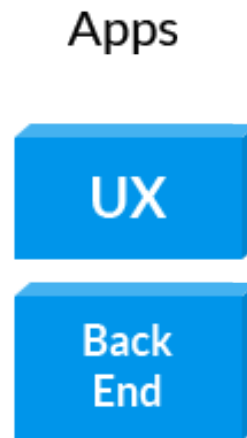


# The Way of Development, part 3

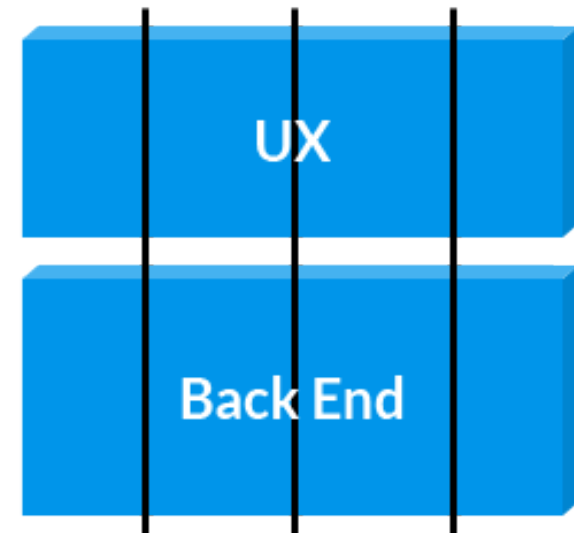
A daunting prospect



Reasonable-sized chunks



Slices





# Specifications



Walking on water and developing software  
from a specification are easy, if both are  
frozen.

© Edward V. Berard



# Designers and developers together

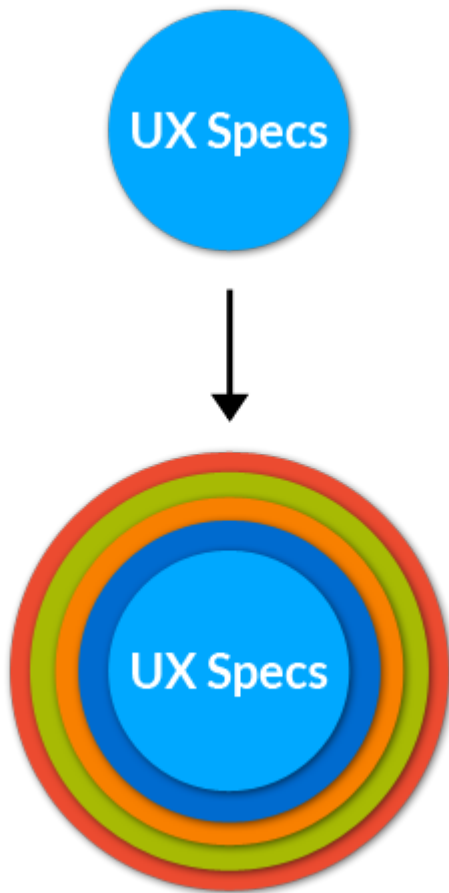


- Good specs take time
- Not enough time for design
- Resources are limited
- Start design before implementation

# Do perfect specs exist?



# Adapt specs for your project



- Go lightweight first
- Add project requirements
- Additions required by technology and developers
- New features
- Etc.



# TOPICS



# Specs and Implementation

Mock-up

The mock-up shows a window titled 'TOPICS' with a menu bar (Topic, Edit, AppConnect, About) and navigation buttons. The main content area is titled 'Topics' and contains a table with columns 'Item', 'Due Date', and 'Priority'. The table lists items like Bread, Milk, Vodka, Meat, Rise, and Sausages. A sidebar on the left shows 'VIEWS' (Search, Assignments, Due Today, Due This Week) and 'MY TOPICS' (Shopping List). A right-hand panel shows details for the selected 'Bread' item, including a 'Completed' checkbox, a 'Due Date' field, and a 'Description' field.

Item	Due Date	Priority
<input type="checkbox"/> Bread	06/28/2012	Low
<input type="checkbox"/> Milk	06/28/2012	Normal
<input checked="" type="checkbox"/> Vodka	06/28/2012	High
<input checked="" type="checkbox"/> Meat	06/28/2012	Normal
<input checked="" type="checkbox"/> Rise	06/28/2012	Low
<input checked="" type="checkbox"/> Sausages	06/28/2012	Normal

Implementation

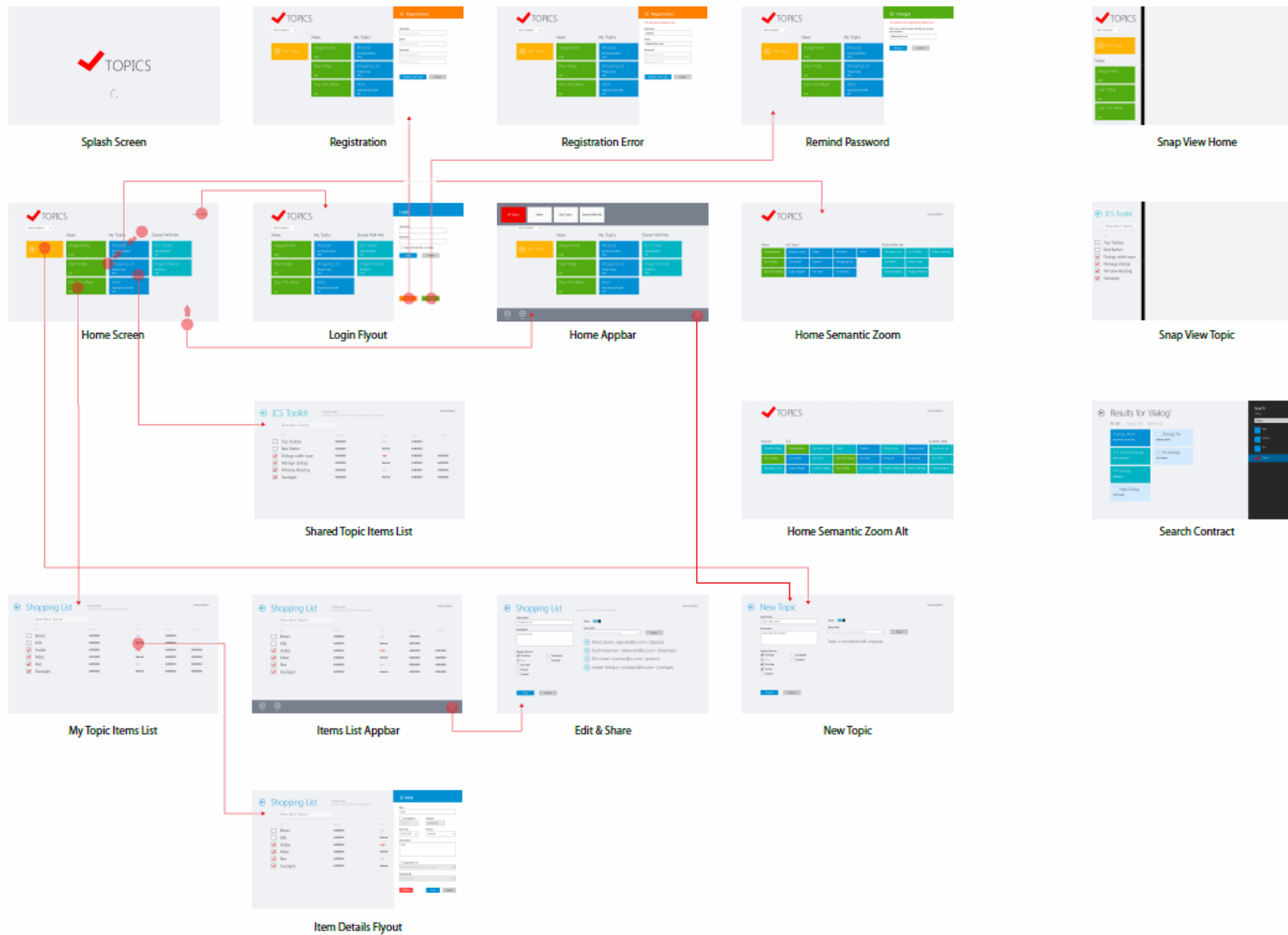
The implementation shows the same 'TOPICS' window but with a different table titled 'Dangerous activities'. The table has columns 'Item Name', 'Due Date', 'Priority', and 'Created'. It lists various activities like 'a new assignment', 'Develop without a wirefra...', 'eat glass', 'hello hello hello hello hello...', 'Max received an item', 'Skydiving without a parach...', 'Swimming with sharks', 'Taking pictures', 'Test Item for Joe M', and 'Test Task for Andrew'. The sidebar and right-hand panel are also updated to reflect the new data.

Item Name	Due Date	Priority	Created
<input type="checkbox"/> a new assignment		Normal	08/26/2013
<input type="checkbox"/> Develop without a wirefra...		Normal	08/26/2013
<input checked="" type="checkbox"/> eat glass		Normal	08/19/2013
<input checked="" type="checkbox"/> hello hello hello hello hello...		Normal	09/13/2013
<input checked="" type="checkbox"/> Max received an item		Normal	08/19/2013
<input type="checkbox"/> Skydiving without a parach...	08/20/2013	Normal	08/19/2013
<input checked="" type="checkbox"/> Swimming with sharks		Low	08/19/2013
<input type="checkbox"/> Taking pictures		Normal	08/19/2013
<input type="checkbox"/> Test Item for Joe M		Normal	09/04/2013
<input type="checkbox"/> Test Task for Andrew		Normal	09/09/2013

# TOPICS Windows 8 Flow

All the mock-ups in this flow are not final, all the work is in progress

Last edit: 09/20/2013



**TOPICS Desktop UI Specifications**  
This is a UI specification document describing UI elements, behavior and patterns of TOPICS desktop.

**Table Headers**

Item Name	Priority	Due Date
<input type="checkbox"/> Bread	Low	
<input type="checkbox"/> Milk	Normal	
<input type="checkbox"/> Milk	High	06/28/2012

**Shopping List**

Item Name	Due Date	Priority	Description
<input type="checkbox"/> Bread	06/28/2012	Low	
<input checked="" type="checkbox"/> Milk	06/28/2012	Normal	
<input checked="" type="checkbox"/> Milk	06/28/2012	Normal	
<input checked="" type="checkbox"/> Meat	06/28/2012	Normal	
<input checked="" type="checkbox"/> Rice	06/28/2012	Normal	
<input checked="" type="checkbox"/> Sausages	06/28/2012	Normal	

**Fonts:**

Creation Date: 01/09/2013  
Owner: Dorothy S.  
Description: Buy these on Saturday. This is a list for keeping all my shopping list items in order. The description can be edited on mouseover.  
[Enter] saves changes, [Esc] cancels changes.

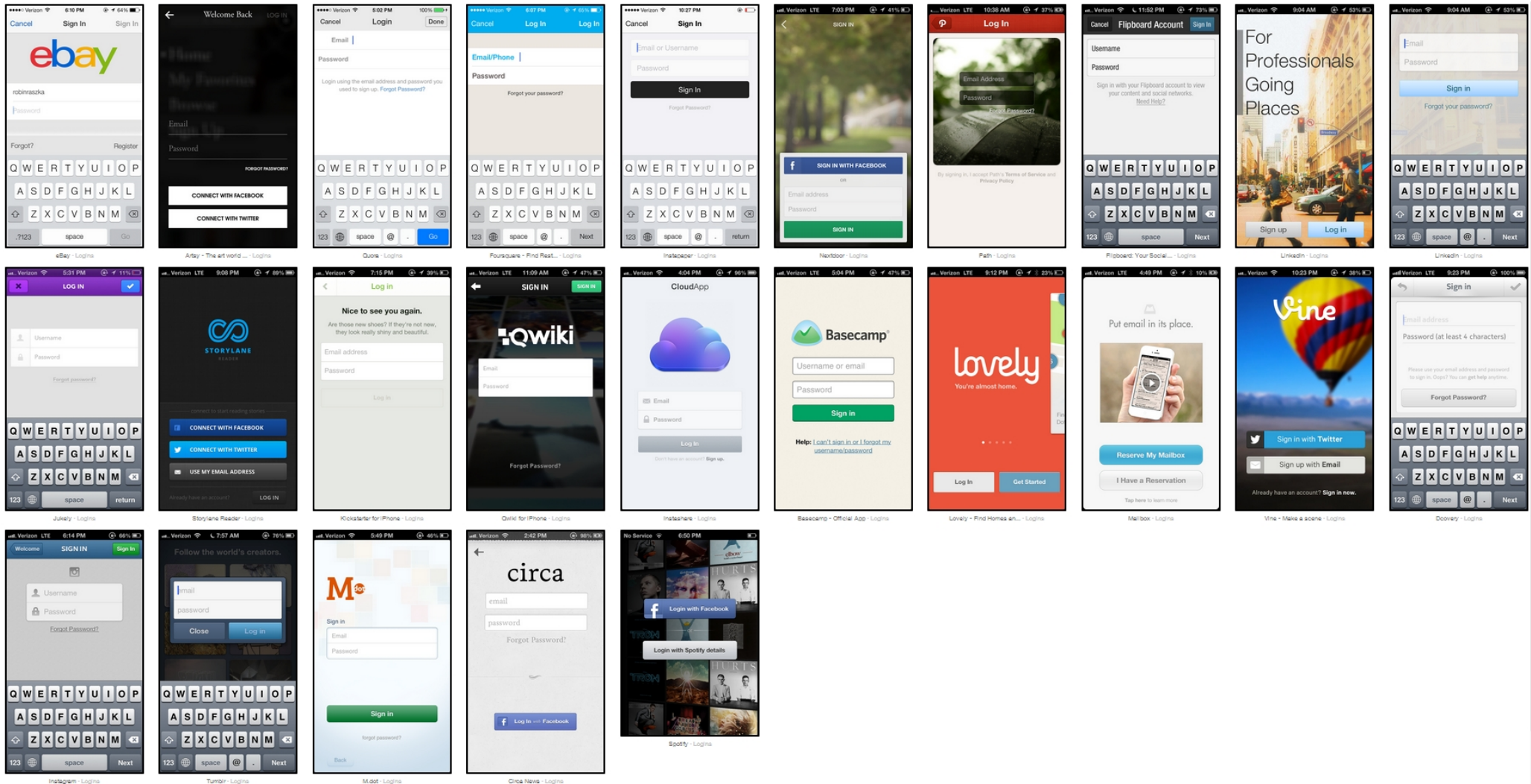
**Styles, Sizes, Graphical Assets**  
All the graphical assets are stored here:  
[TOPICS Desktop UIMockupAssets](#)

**Sizes:**

The view is adjustable and has 3 modes:  
- compact view (displaying one pane at a time):

- Have a perfect balance of graphical and text content in the specs document
- All the specs require additional communication
- Mock-ups should be “read” too
- Every specs document is unique as well as every project is

# The Philosophy of Patterns

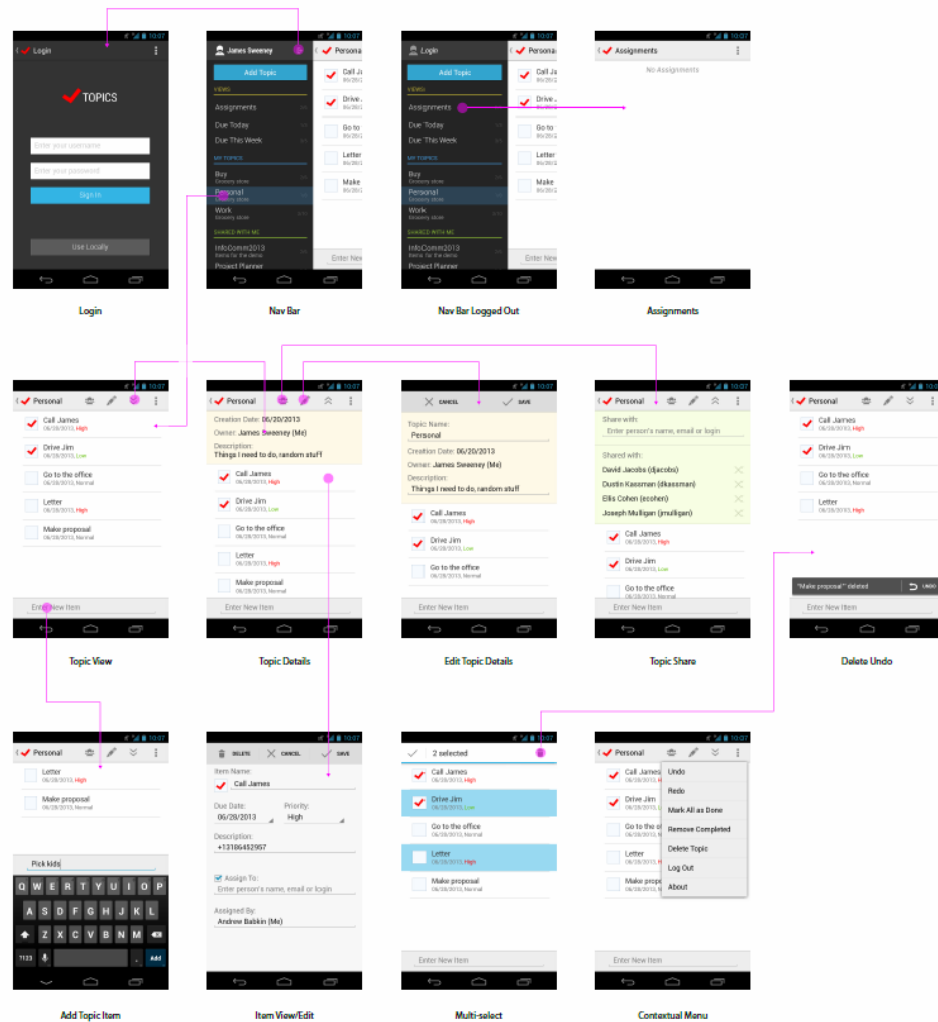


# What are patterns

## TOPICS Android Flow

All the mock-ups in this flow are not final, all the work is in progress

Last edit: 09/03/2013



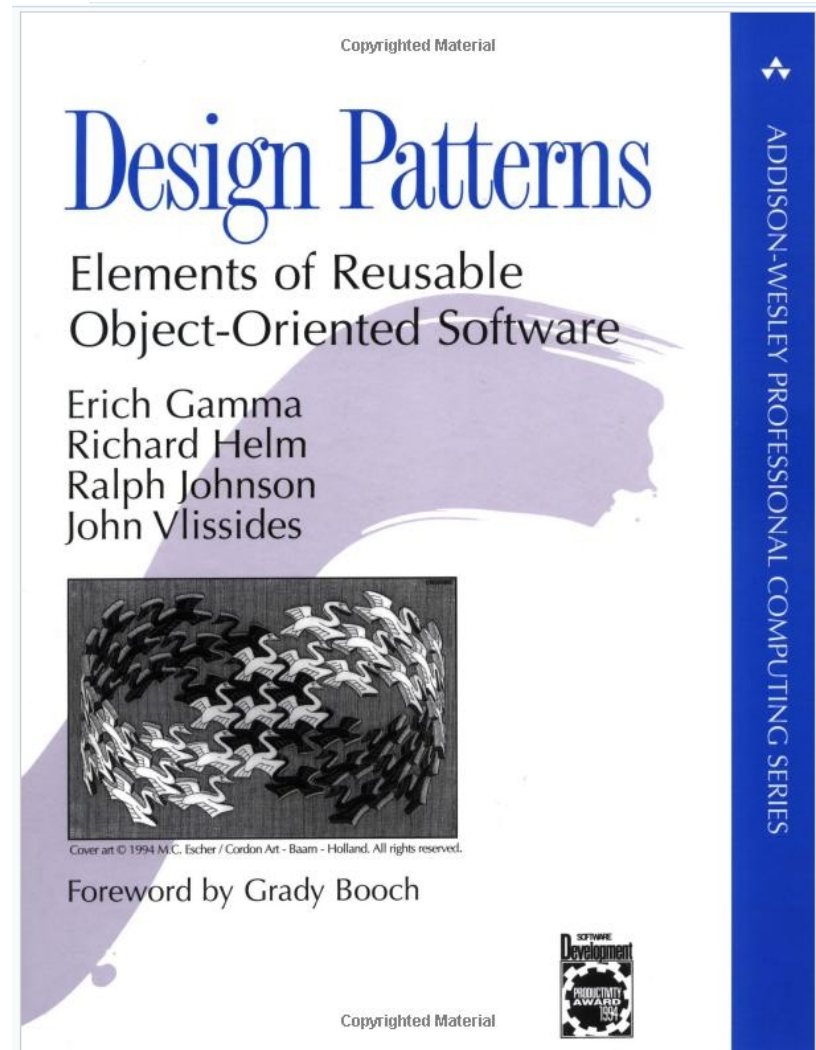
- UX designers think and design in patterns
- User interface design patterns are used as a solution to recurring, design problems

# UX patterns include both behavior and look



# The origin of patterns

- The profession of UX did not invent the notion of design patterns. It is an inherently natural way to design
- A Pattern Language, by Christopher Alexander, et al.
- Design Patterns, by Gamma, Helms, Johnson and Vissides





# The value of patterns

- Easy for users to learn (limits the amount of items to learn)
- Use known (many already learned behaviors and layouts)
- Patterns translate into software components (reusable code!)

The screenshot displays the ICS web application interface. At the top, there is a navigation bar with tabs for 'Personal', 'Business', and 'Projects'. Below this, a breadcrumb trail shows 'Dashboard > Activity > Blog > Wiki > Directory > Documents > Discussions > Forms > Phases > Calendar > Workplan > Workflow > Setup'. The main content area is titled 'Task Properties' and shows details for a task named 'Proposal for phase 1 Message Center'. The task description is 'This should be a document outlining the high level user stories and technical issues.' The priority is 'Medium' and the tag is 'Sprint 34'. The 'Work' section indicates a 'Task Calculation Type' of 'Fixed Units' and that the task is 'effort driven'. It also shows 'Work on tasks in this project is done by default: 40hrs/wk, 8hrs/day, 5days/wk, 20days/mo'. The task has a 'Work' of 16 hours and a 'Duration' of 2 days (at 8 hrs/day). The interface includes a sidebar with 'Workplan' and 'Product Planning' sections, and a 'Toolbox' with 'Blog-it', 'Edit Task', and 'Delete Task' options. The bottom of the page features the ICS logo.

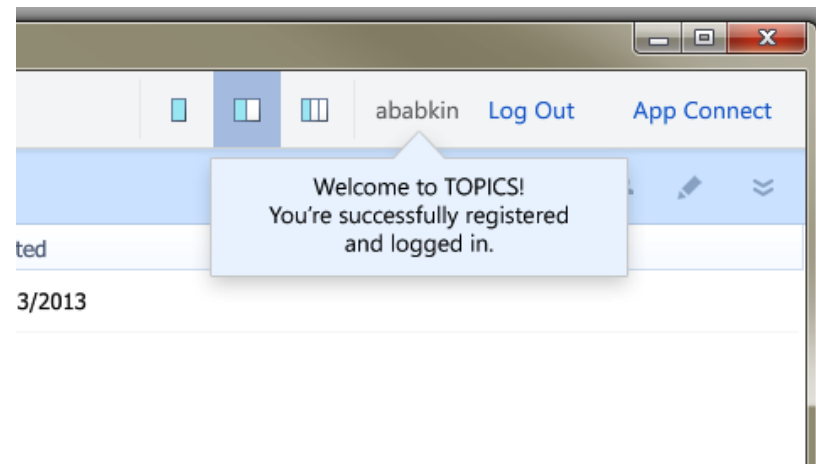
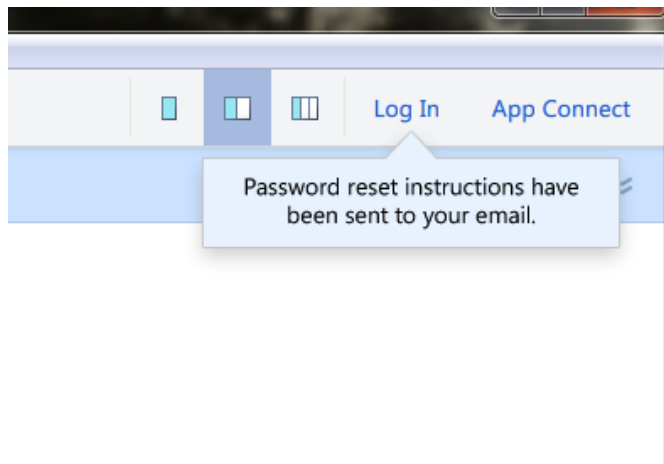
# Patterns Include Styles

- Styles are also essential to maintain consistency
- Styles are part of the pattern language

1	Object Name	Width	Height (+borders)	Padding (including borders)	Margin	Font	Border (inside)	Background	Link to the Mock-up	Notes
2	List Item	185 px	30 px	L: 8 px, centered vertically		regular, 15px, #000000	B: 1px, solid, #f6f6f6	#FFFFFF	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
3	_List Item Selected							#f6f6f6	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
4	Top Tab	depends on text	35 px	L: 18 px; R: 18 px; centered vertically		light, 18px, #878787	none	none	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
5	_Top Tab Selected					#000000	#daddbc	#f5f6f7	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
6	Top Bar Text				L: 50px;	regular, 14px, #000000			<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
7	Top Bar Link					regular, 14px, #0066cc			<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
8	Top Bar Action	76 px	66 px	L: auto; R: auto; T: auto; B: 10px;	vertically centered, spacing between buttons - 6px	regular, 12px, #383838	1px, solid, depends on state		<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
9	Top Bar Action Small	30 px	30 px		vertically centered, spacing between buttons - 2px		1px, solid, depends on state		<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
10	Calendar Top Row	depends on content	26 px	centered		regular, 14px, #3c5e72	1px, solid, #cad1d9	#f6faff	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
11	Calendar Bottom Row	depends on content	26 px	L: 5 px;		regular, 14px, #3c5e72	1px, solid, #cad1d9	#f6faff	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
12	Date Bubble			L: 12 px; R: 12 px;		bold, 11px, #6e6e6e			<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
13	Table Row		32 px				1px, solid, #eeeeee		<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
14	Vertical Line 1	1 px						#cad1d9	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
15	Vertical Line 2	1 px						#dce3ea	<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	Overlaps content
16	Project/Resource Bar		28 px	vertically and horizontally centered on the visible part	L: 1px; R: 1px; T: 1 px; B: 1 px;	italic, 14 px, #292929			<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
17	Calendar Arrow	30 px	24 px							
18	Field Title	85 px			L: 15 px;	regular, 14 px, #2d2d2d			<a href="https://docs.google.com/a/ics.com/file/d/0F...">https://docs.google.com/a/ics.com/file/d/0F...</a>	
19	Field					regular, 13 px, #2d2d2d				

# Key

## Developers need to recognize patterns



# Clincher - Maintaining patterns

## Team coordination matters

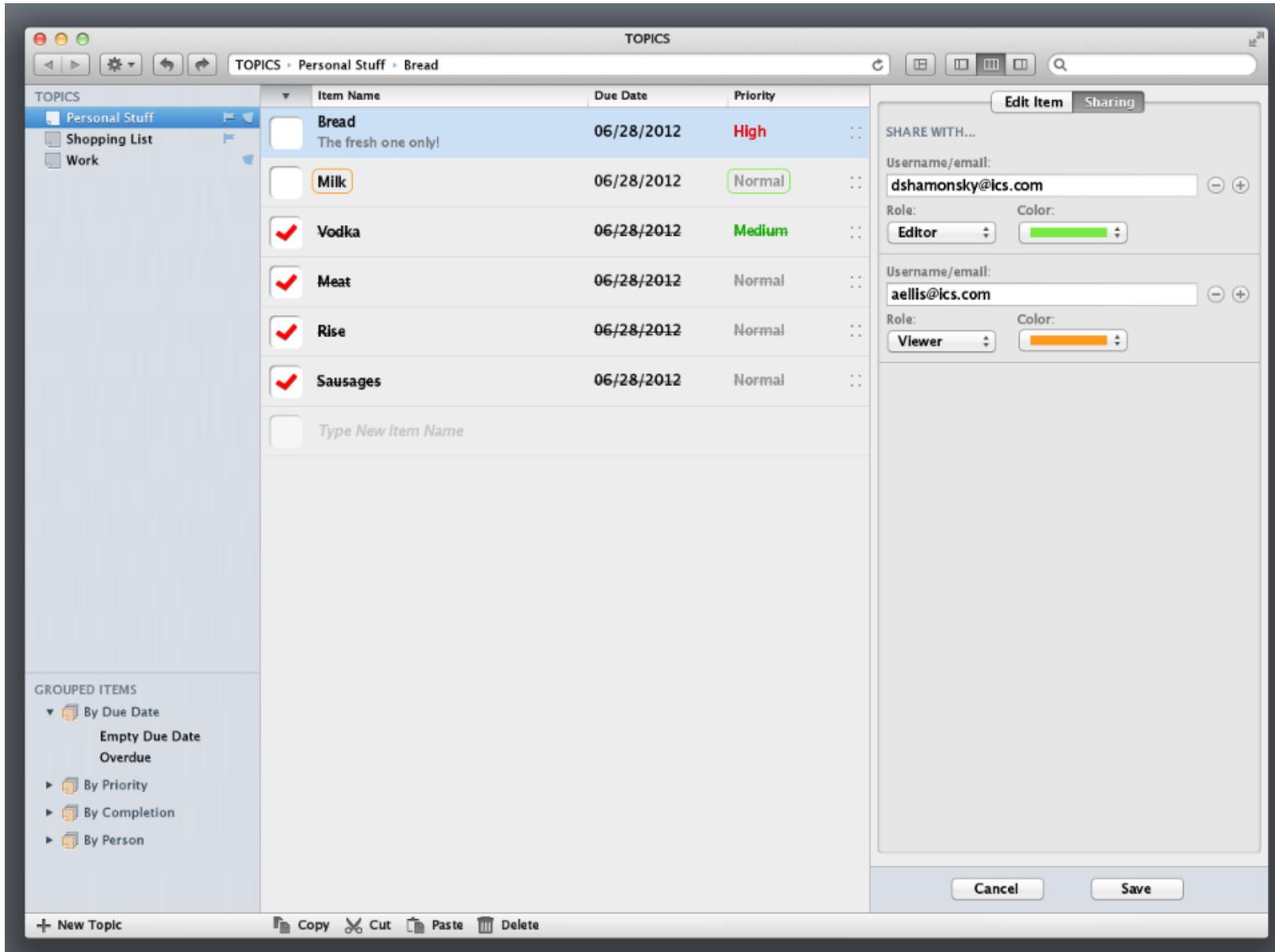
Teams	Module 1	Module 2	Module 3	Module N
UX	The Patterns			
Middle				
Back End				

# Ownership

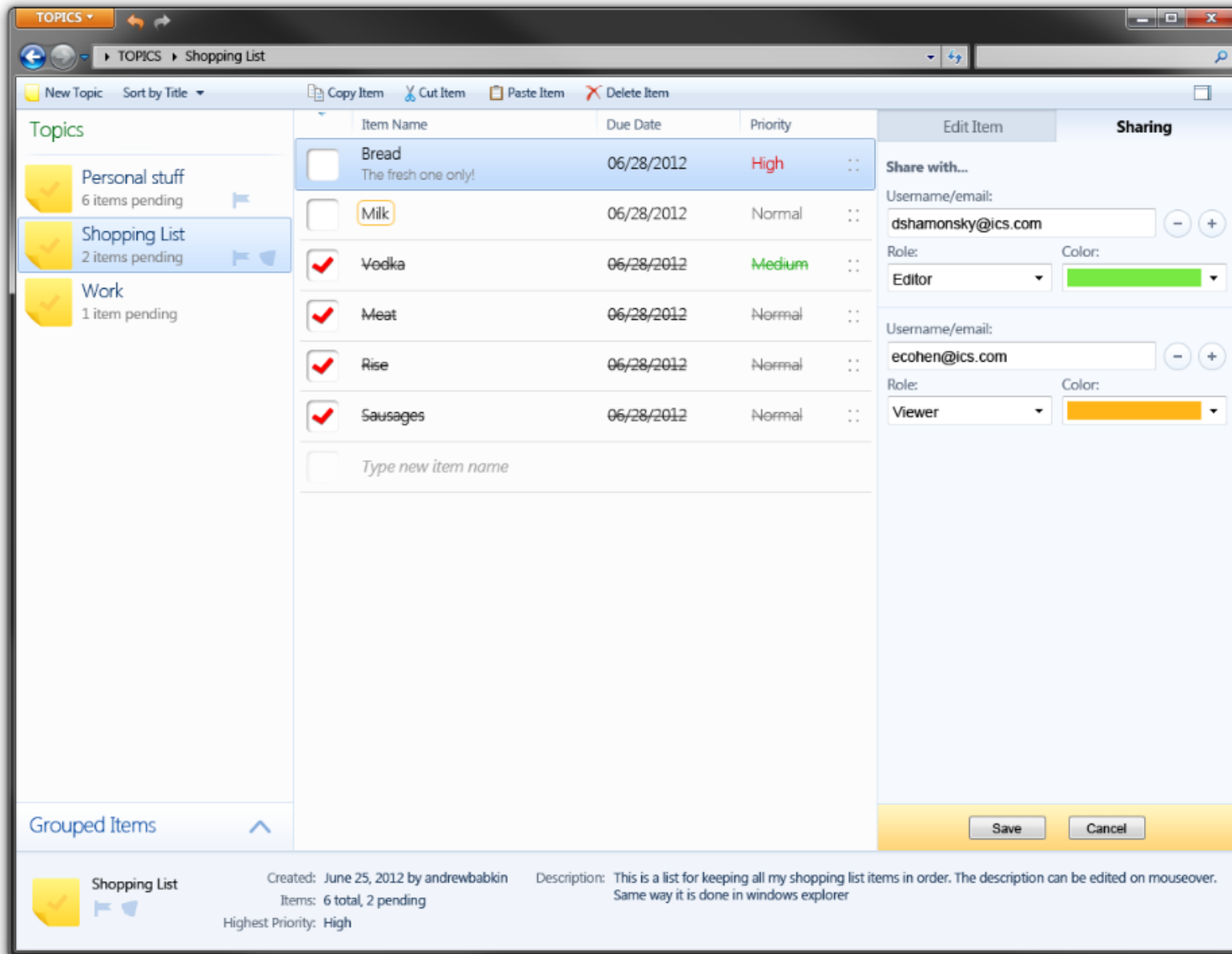


- Manager owns the overall project
- Developer owns the integrity of the code
- UI/UX designer owns the UI/UX design
- Graphic designer owns the graphic design
- Animator owns the animation
- Copywriter owns the copy
- and so on...

# TOPICS Mock-up for Mac



# TOPICS Mock-up for PC





# Implementation not honoring ownership

The screenshot shows a Qt application window titled "Topics-Desktop v2". The window has a standard Linux-style title bar with minimize, maximize, and close buttons, and a "Not Logged In" indicator. The main content is divided into two panes. The left pane, titled "Topics", contains a list of topics: "11", "home", "ICS", "now", and "winston group". Each topic has a circular refresh icon to its right. The "ICS" topic is selected and highlighted in blue. The right pane, titled "ICS", shows a table of items for the selected topic. The table has columns for "Item Name", "Due Date", "Priority", and "Topic". The items listed are "two", "Eric peter", and "ICS". Below the table is a modal dialog for adding a new item, with fields for "Item Name:" and "Description:", and "Close" and "Add Item" buttons.

Item Name	Due Date	Priority	Topic
two		Medium	ICS
		Medium	ICS
Eric peter		Medium	ICS

# What the bridge is made of



# Collaboration

- UI kickoff meetings
- Weekly UI review meetings
- Dialogue between developer and designer

# Specs

- Perfect balance
- Meet project needs
- Mock-up is more explicit than text
- User stories

# Patterns

- Same UI element = Same component
- Code reuse where possible
- Use styles

# Ownership

- UX team owns UX and signs off the UX implementation
- Dev team owns the code and makes all the related decisions

**Thank you for your attention!**  
**Questions and comments are  
appreciated.**

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