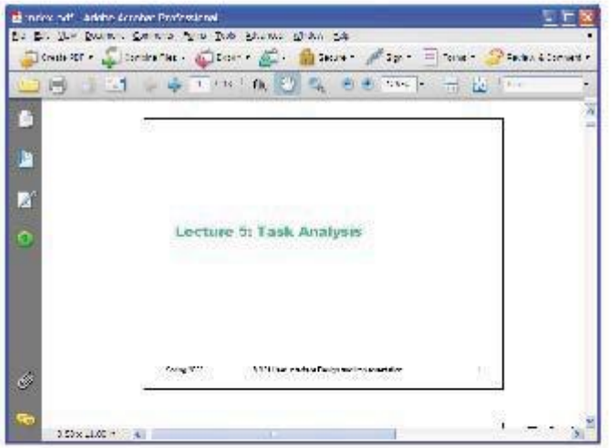
Generating Designs

UI Hall of Fame or Shame?

Ghostview

Acrobat



UI Hall of Fame or Shame?

Xerox Star scrollbar

original Macintosh scrollbar

current Macintosh scrollbar

Today's Topics

- Design techniques
  - Sketching
  - Scenarios
  - Storyboards
- Design patterns
- Simplicity

Sketching Designs

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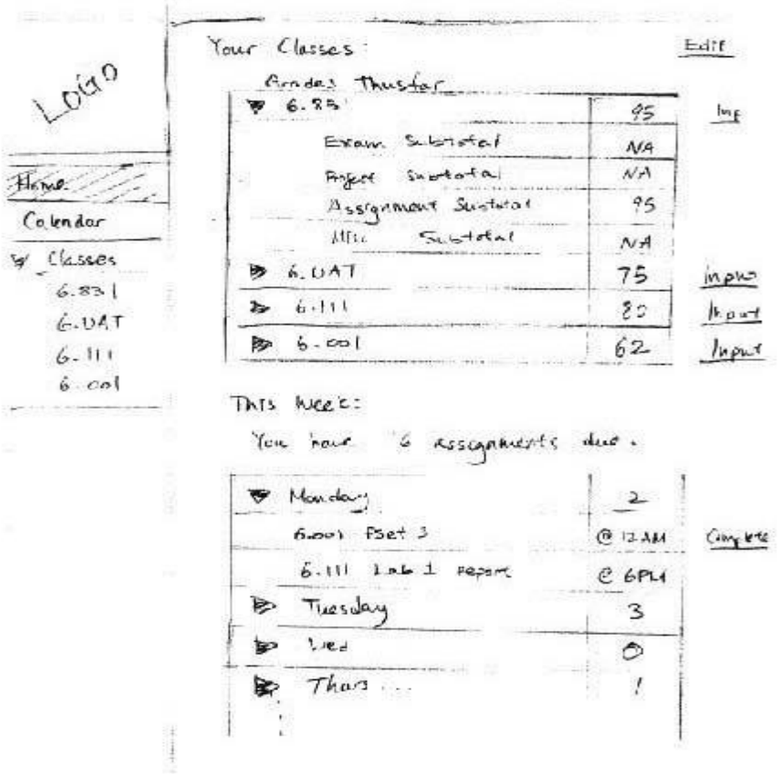
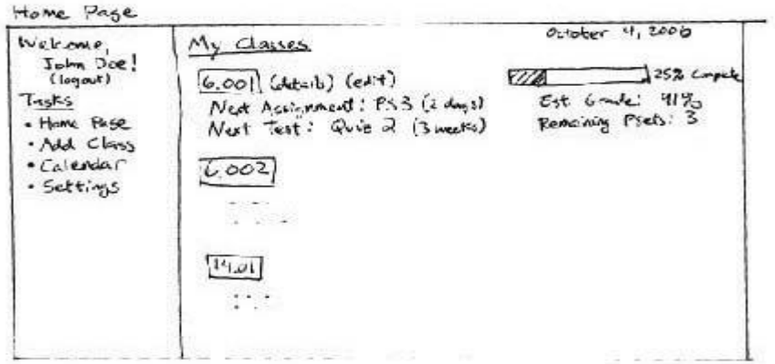
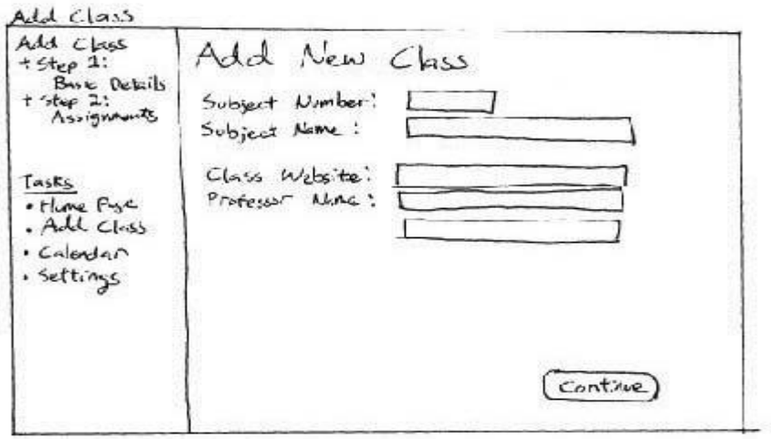
- Draw your ideas
  - By hand, not by drawing program
  - Paper or whiteboard
- Generate many ideas
- Design in a group

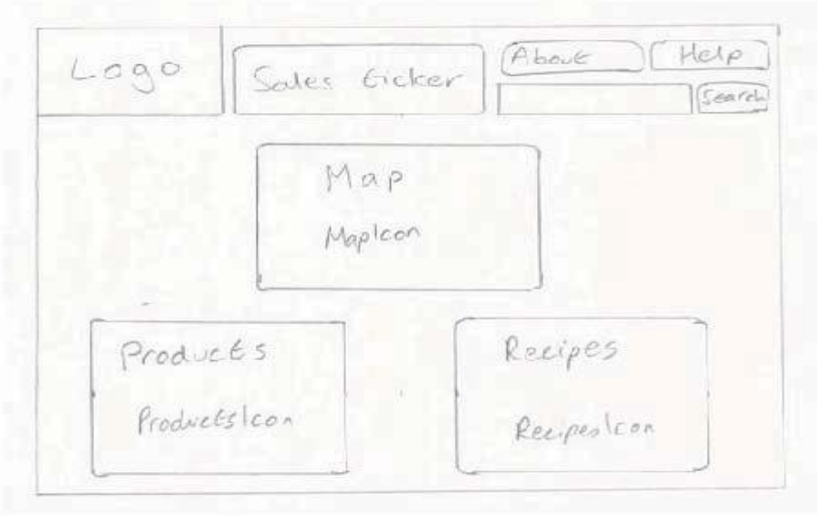
Examples of Design Sketches



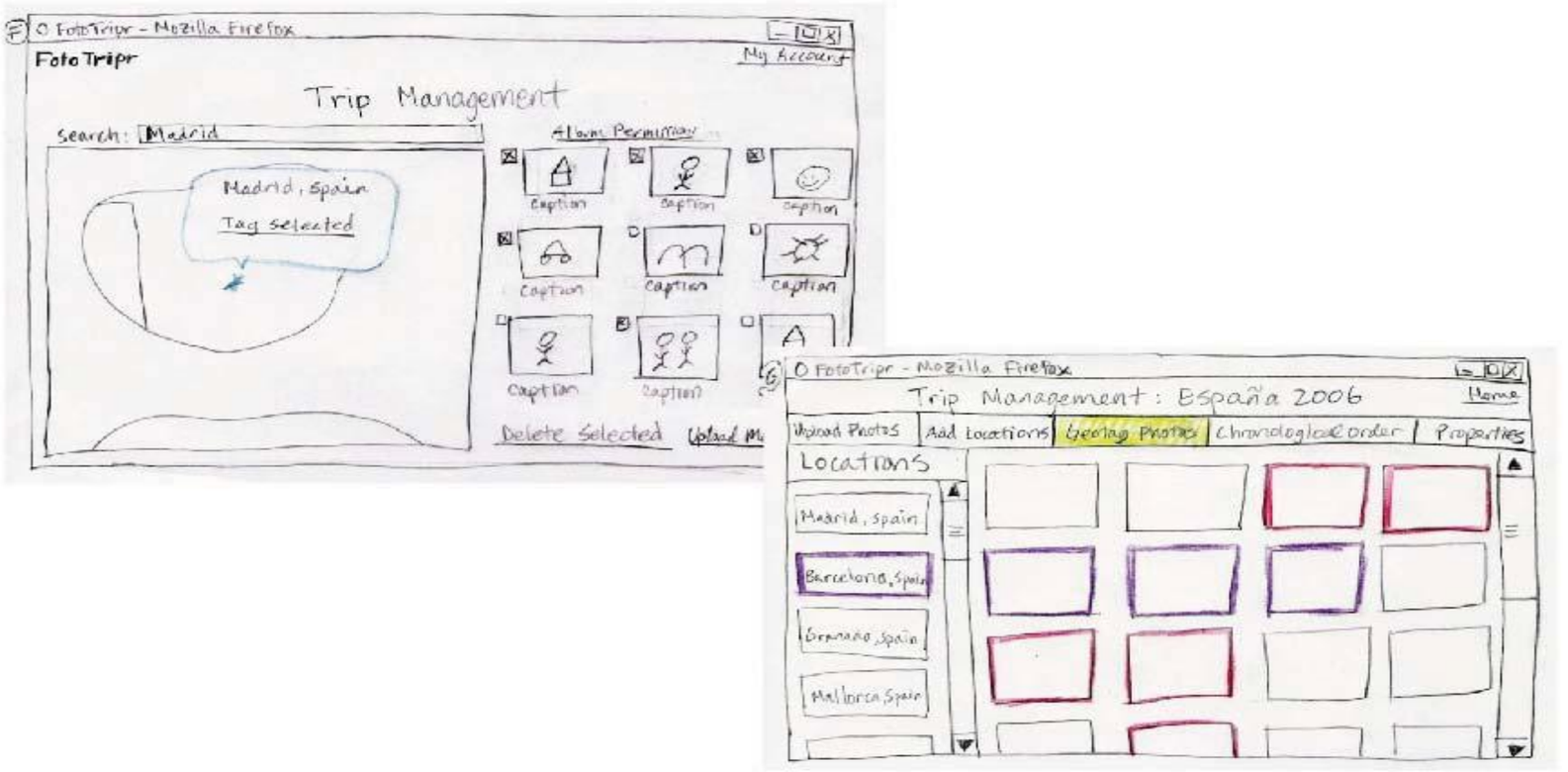




Examples of Design Sketches



Examples of Design Sketches



Scenarios

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- Scenario is a story about a user using the system
  - Concrete, realistic, but fictional
  - Involves a user with a goal
  - Follows how the user achieves the goal

Storyboards

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- Sequence of sketches illustrating a scenario
- First prototype of a design
  - Shows how the design can actually be used to satisfy a goal

Using Information from Analysis

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- Are important tasks covered?
- Which usability aspects matter most?
- How large does the data get?

Design Patterns

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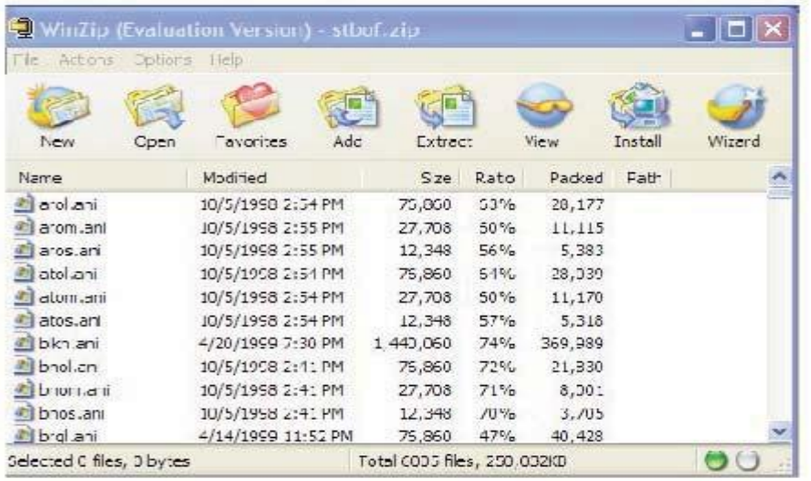
- Patterns are good solutions to common problems
  - General GUI patterns: Tidwell, Salaakso
  - Web collections: Yahoo, Welie
- Pattern kinds
  - Structural
  - Navigation
  - Widgets

Structural Patterns

Wizard

Center Stage



Navigation Patterns

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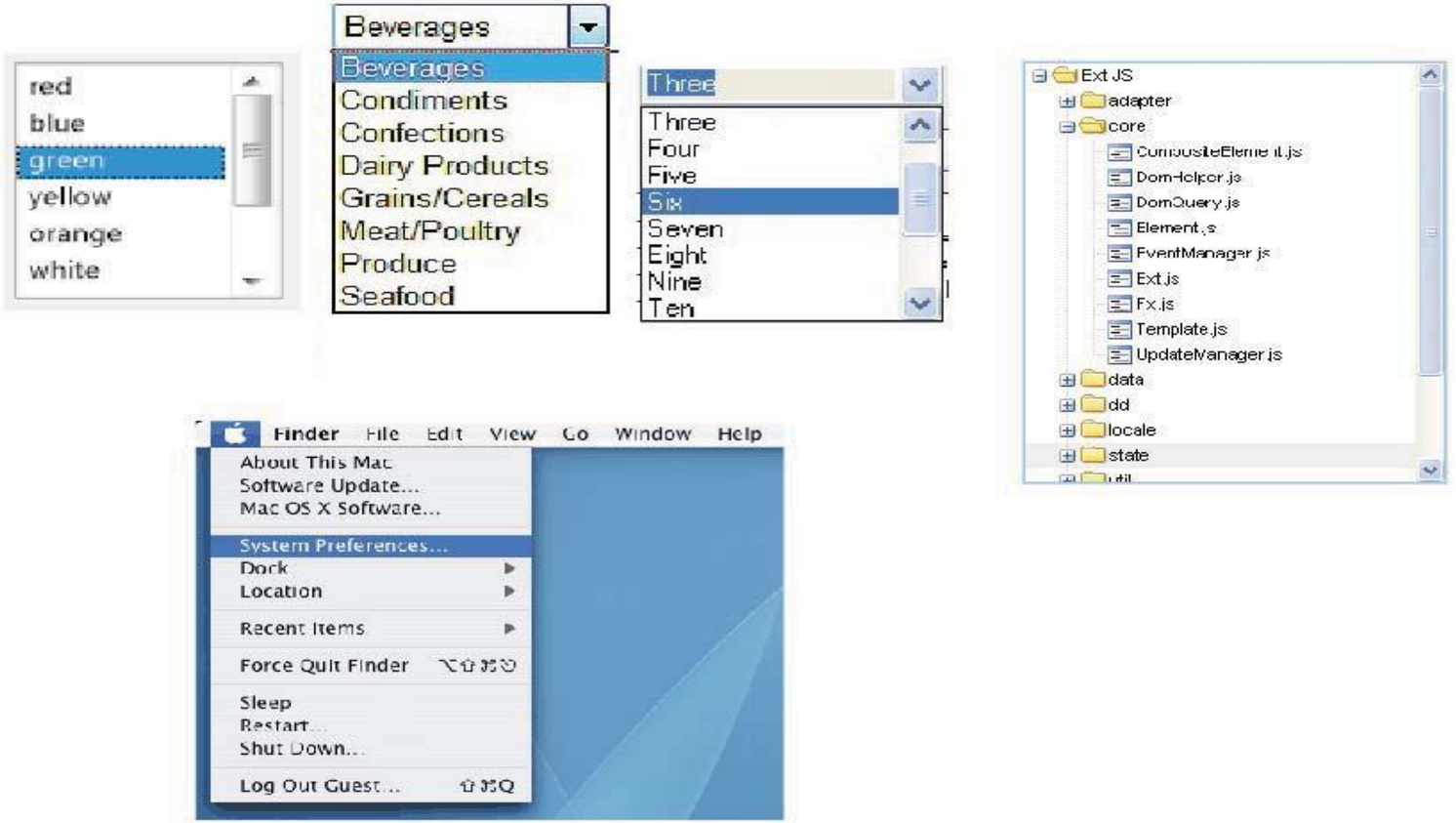
breadcrumbs

Travel > Guides > North America

pagination

Results Page:
1 2 3 4 5 6 7 8 9 10 **Next**

Widgets


red
blue
green
yellow
orange
white
Beverages
Beverages
Condiments
Confections
Dairy Products
Grains/Cereals
Meat/Poultry
Produce
Seafood
Three
Three
Four
Five
Six
Seven
Eight
Nine
Ten
Ext JS
adapter
core
CompositeElement.js
Dom-Helper.js
DomQuery.js
Element.js
EventManager.js
Ext.js
Fx.js
Template.js
UpdateManager.js
data
dd
locale
state
Finder File Edit View Go Window Help
About This Mac
Software Update...
Mac OS X Software...
System Preferences...
Dock
Location
Recent Items
Force Quit Finder
Sleep
Restart...
Shut Down...
Log Out Guest...

Widgets for 1-of-N Choices

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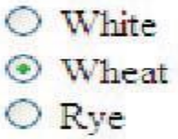
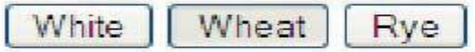
Radio buttons



Drop-down menu

Single-selection listbox

Toggle buttons



Widgets for 1-of-2 Choices

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- Widgets for 1-of-N choices (with N=2), plus:

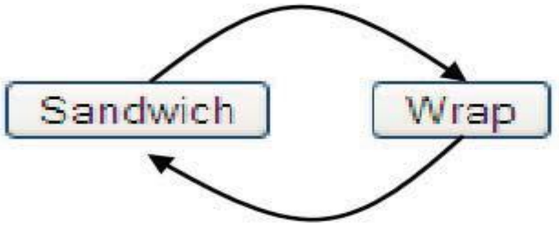
Checkbox ☑ Toasted

Toggle button [Toasted]

- Avoid:

☐ Sort in ascending order

☐ Insert vs. overstrike



Widgets for K-of-N Choices

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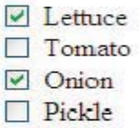
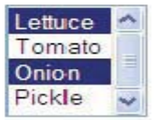
N checkboxes



Multiple-selection listbox



Widgets for Window Organization

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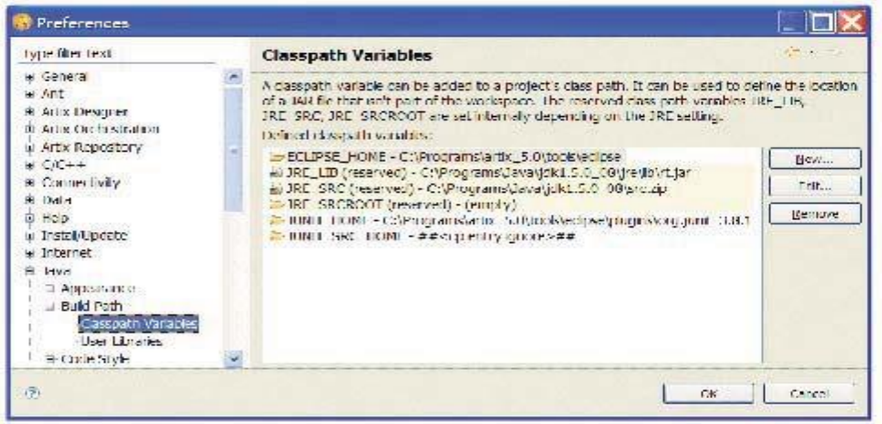
Tab widget

Accordion widget

Table of contents



The Dreaded Nested Scrollpanes

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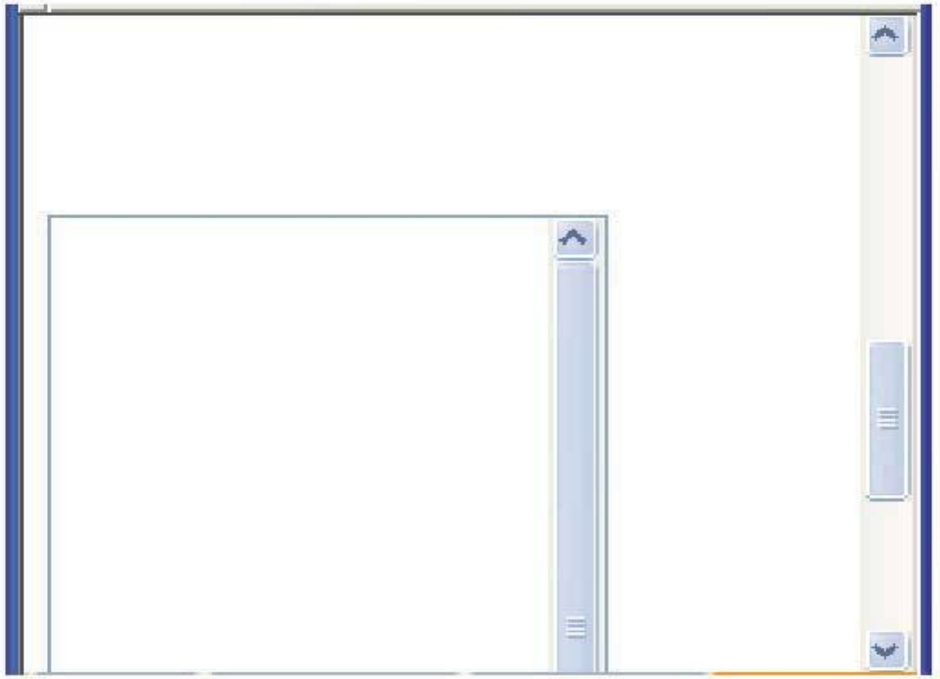
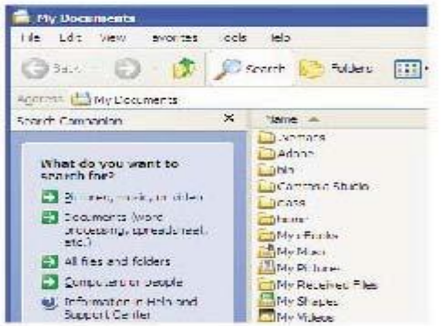
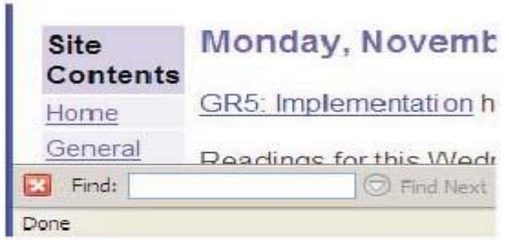


Widgets for Dialogs

- Modal dialog box
- Modeless dialog box
- Sidebar

modal sheet





modeless sidebars

Pros & Cons of Widgets

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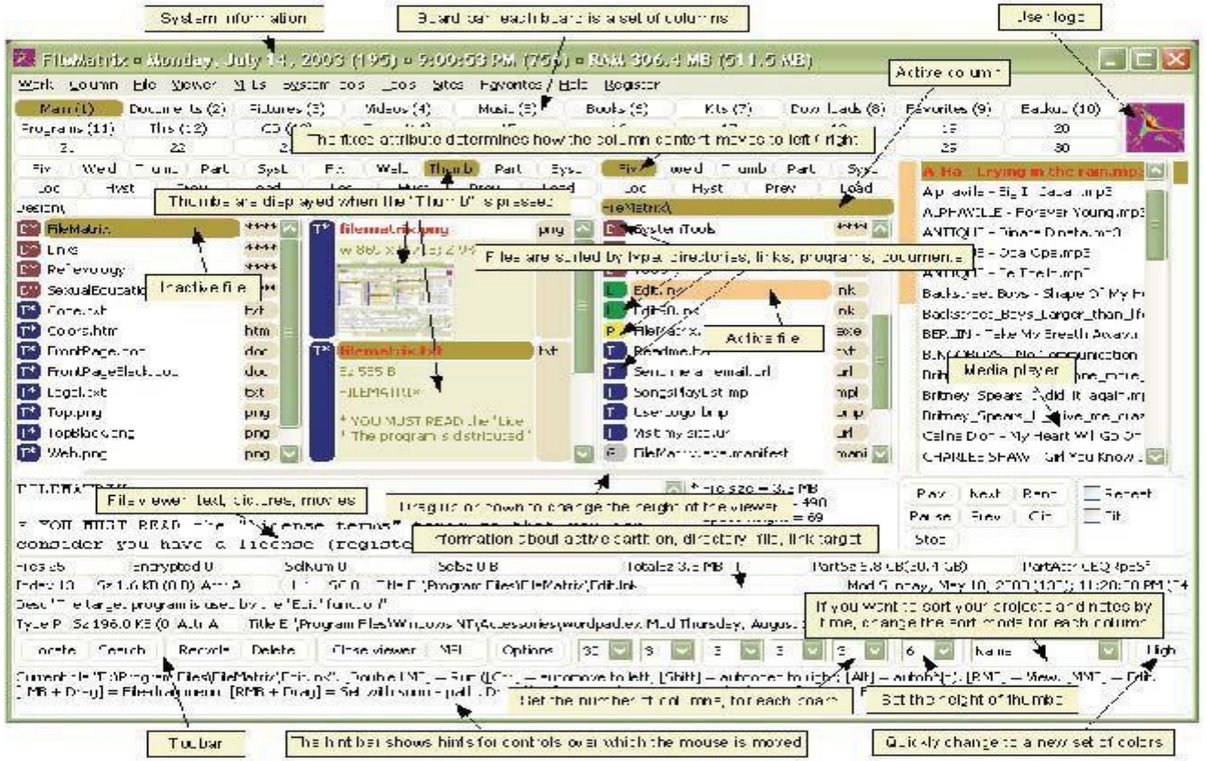
- Advantages
  - External consistency
  - Saves development effort
    - Coding, testing, debugging, maintenance
    - Iteration and evaluation
- Disadvantages
  - Widgets may constrain designer's thinking
  - Widgets encourage menu & forms style, rather than richer direct manipulation style
  - Widgets may be used inappropriately

Simplicity



Source: Alex Papadimoulis

Simplicity, 2003

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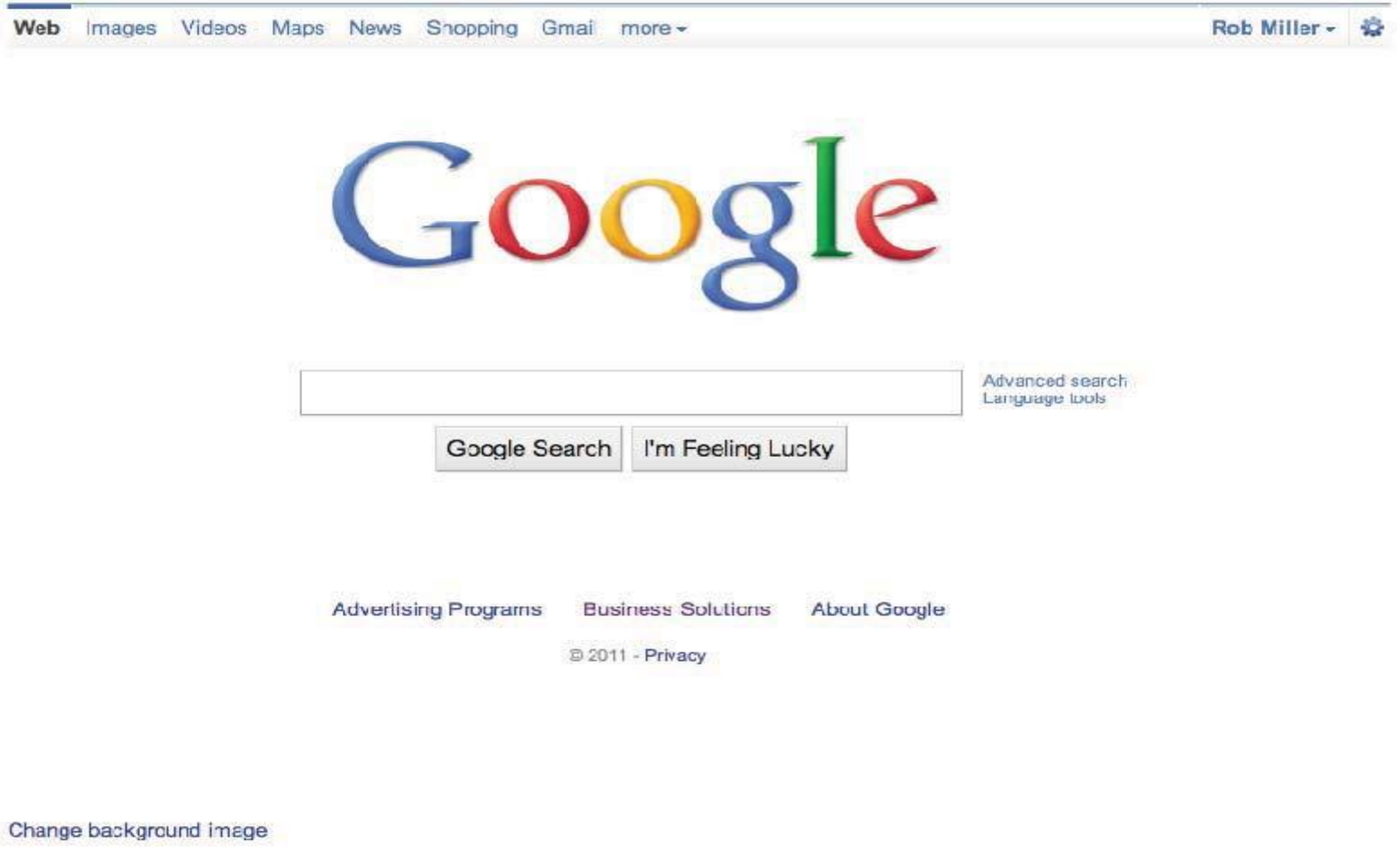
Simplicity, 2011



Simplicity

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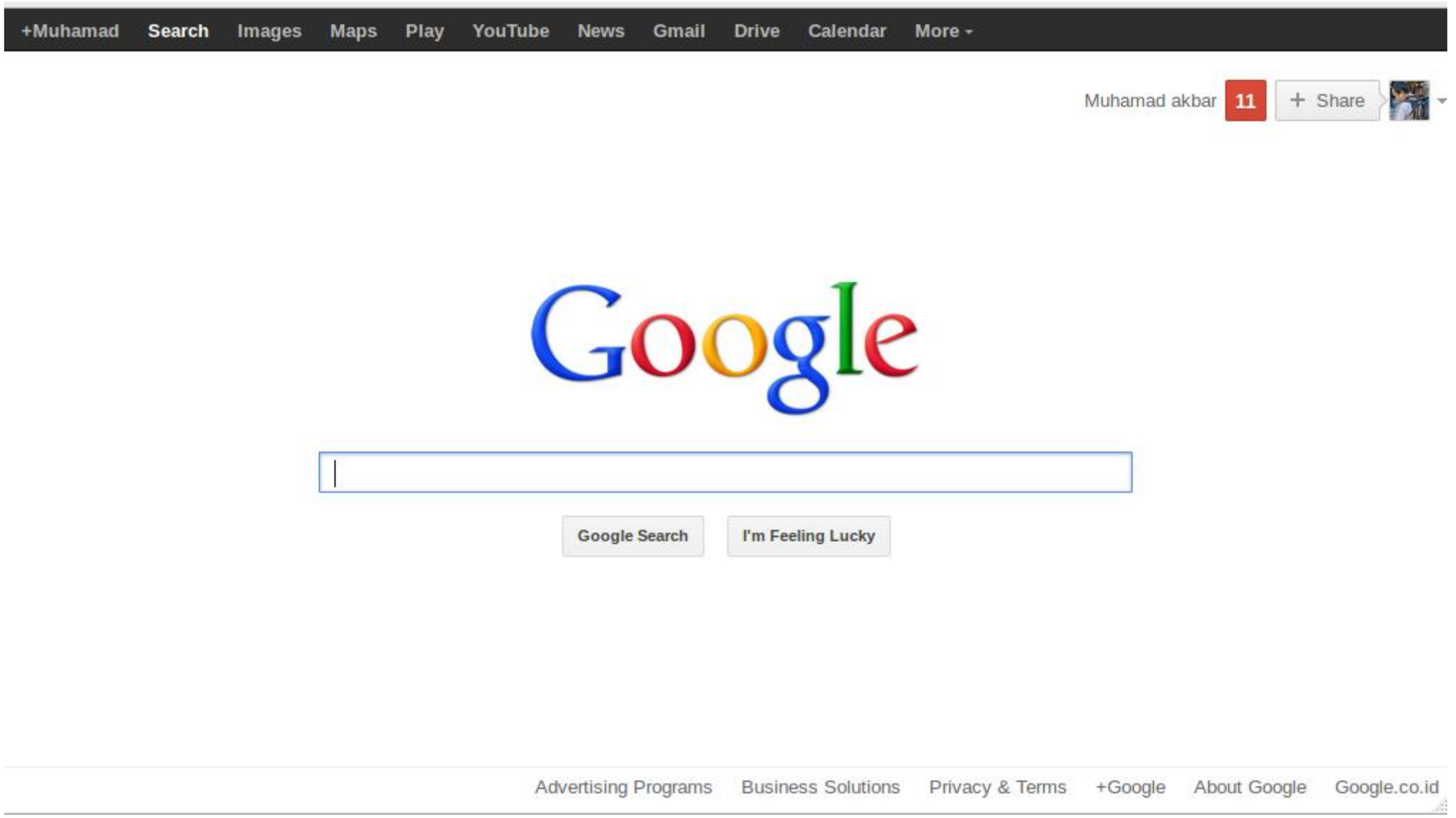

Techniques for Simplicity: Reduction

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- Remove inessential elements

Techniques for Simplicity: Double-Duty

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- Combine elements for leverage
  - Find a way for one element to play multiple roles

title bar

scrollbar thumb

help prompt

breadcrumbs

Travel > Guides > North America

pagination

Results Page: 1 2 3 4 5 6 7 8 9 10 Next

Summary

- Generate many ideas
- Capture your ideas with sketches, scenarios, and storyboards
- Study design patterns and use them wisely
- **Keep it simple**