

MFA Progress Report

Megan Erin Miller

May 16, 2013

My MFA Program

- * Web Design & New Media
- * Academy of Art University, San Francisco
- * Core coursework, and 6 directed study classes
- * 2008-present

MFA Thesis Project Deliverables

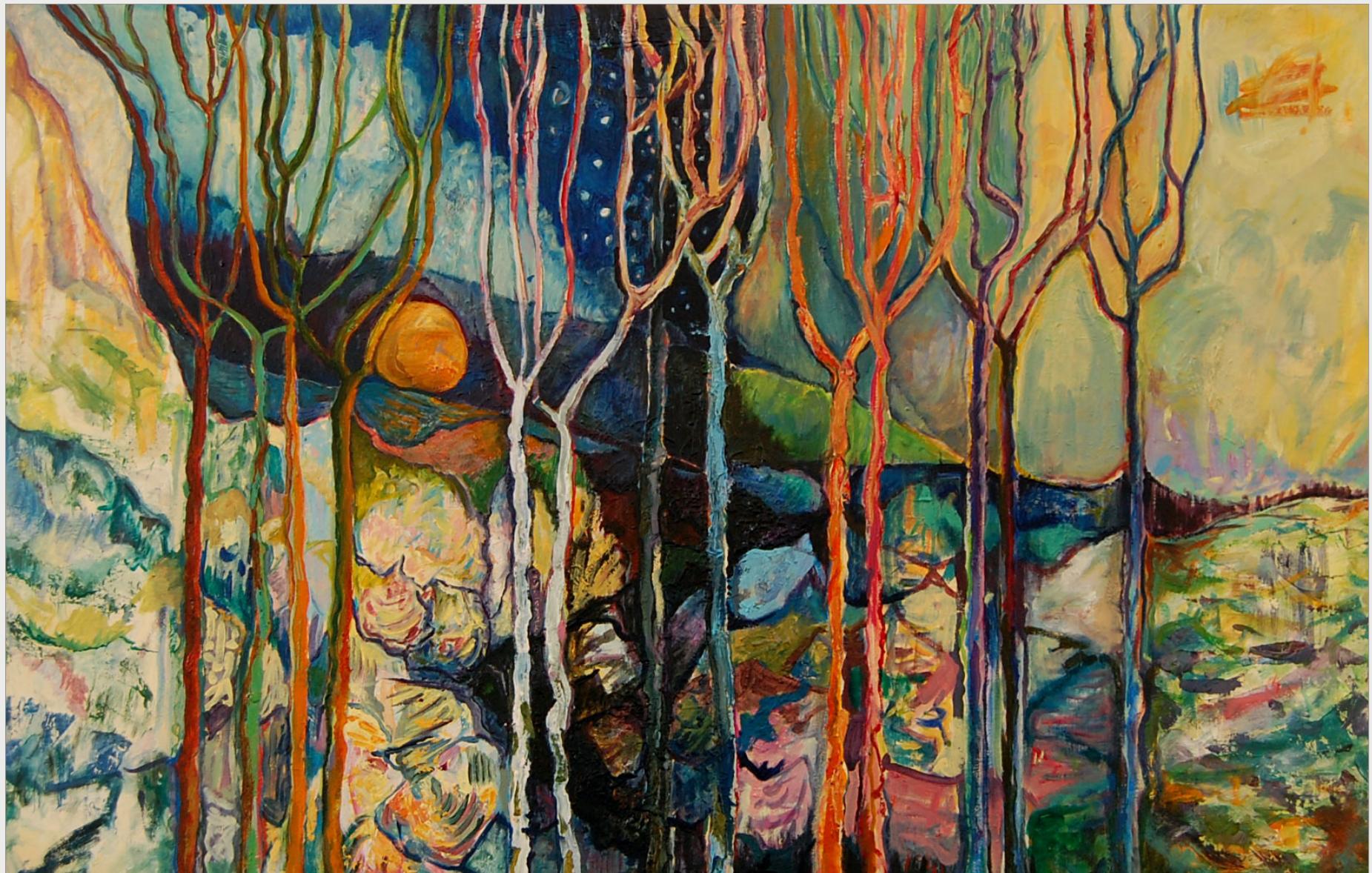
- * Working prototype
- * 20 minute presentation to committee
- * Book about project (~50-80 pages)
- * Short “pitch” video (30 sec)
- * Short concept video (2 min)
- * Directed Study Journal

Megan Erin Miller

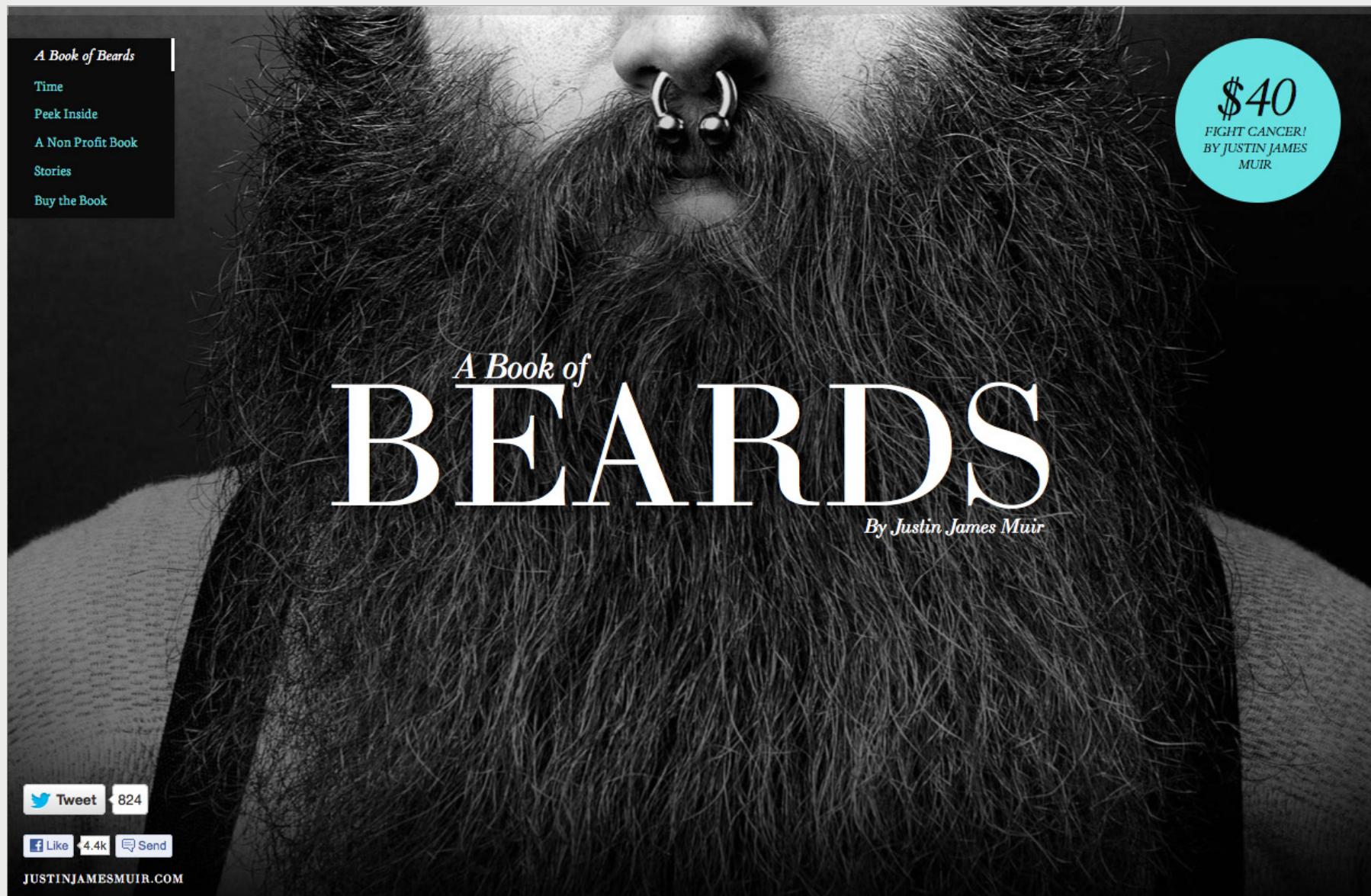
Introducing Bloomcase

**Everything has
a story to tell.**

This painting.



This website.



This business.

BACON ☕ BACON
SAN FRANCISCO

THE TRUCK THE KITCHEN THE PRESS THE CONTACT

BACON BACON KITCHEN
NOW SERVING:

VIEW HOURS

BACON ☕ BACON
SAN FRANCISCO

— HELP BACON BACON STAY IN THE HAIGHT —
SIGNATURES OUR NEIGHBORHOOD MEETING SIGNUP

We need better tools to tell our stories.



Introducing Bloomcase

**A new tool designed
to help you showcase
your creative process.**

A visual language for storytelling.



Inspiration



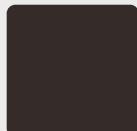
Idea



Sketch

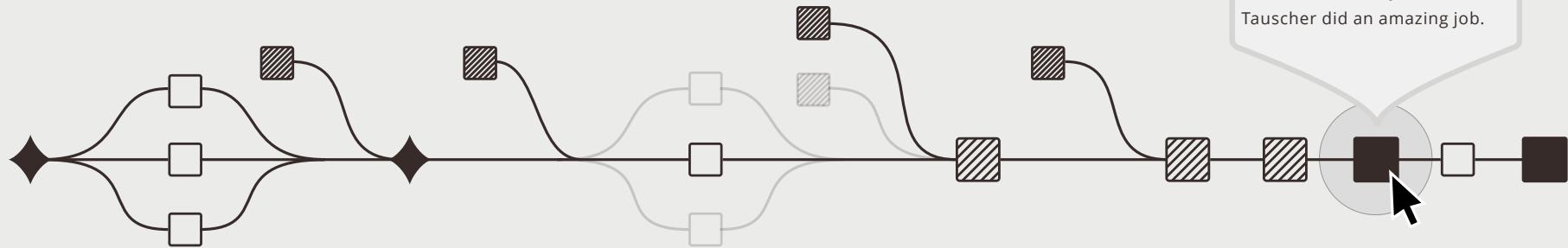


Draft



Final

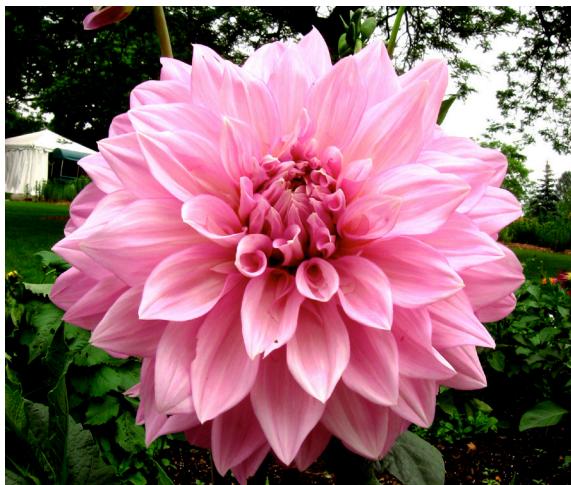
Showcases the evolution of your creative work.



1st Inking Session

The first inking session took two hours, and my artist, Todd Tauscher did an amazing job.

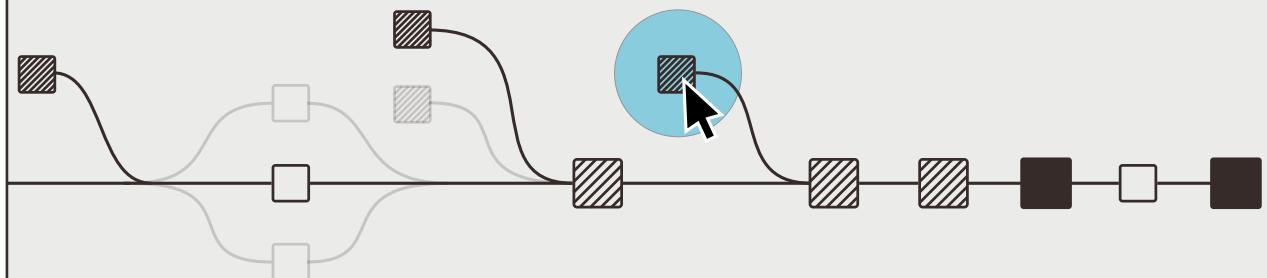
Enabling you to tell a curated story.



October 1, 2012

A beautiful flower

This photo I found of a dahlia online was the one I decided to trace for my second flower. I first tried to trace it in Photoshop using my tablet, but had not so good results. Then I printed it out black and white and used a light box to trace it with a ballpoint pen. I did two rounds of tracing, once for the outline, then another round for the detail line work.



Use it to present your creative portfolio.

Featured Projects / All Projects



October 15, 2012

New Tattoo

I recently designed and got a new tattoo. Learn about my design process for creating this tattoo.

tattoo drawing flower



May 15, 2009

Jack Conte Mashup

A fake cover art for Rolling Stone magazine done using photoshop and featuring Jack Conte.

music photoshop



July 23, 2010

Cultural Addiction

In this collage, I combine automotive industrial imagery with organic metaphors.

collage



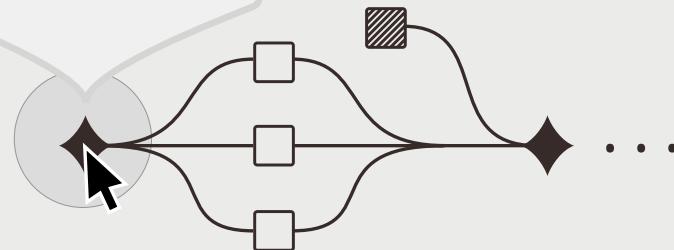
September 21, 2010

SiCa Annual Report

A 30 page annual report featuring glossy photos, an events timeline, and data highlights.

siCa graphic design
annual report

Or simply document your evolving ideas.



**Bloomcase is a simple,
yet powerful tool for
telling your story.**



Why make a tool to document and share creative process?

- * Frustrated with traditional portfolios
- * Process is highly valued in industry
- * Need a new way to communicate process
- * We learn from self reflection
- * Uncover new patterns and data

Anatomy of Creative Process



Inspiration



Idea



Sketch



Draft



Final

Use Cases

- * The artist
- * The architecture student
- * The project manager
- * The entrepreneur

A tool for

- * Documentation
- * Reflection
- * Presentation
- * Collaboration

New Data

- * Shared inspirations
- * Uncovering patterns
- * Finding meaningful connections

Bloomcase

Progress Report, Spring 2013 (Feb-May)

Megan Erin Miller

Where I started

- * An idea and a vision
- * Personas
- * Competitive analysis
- * Brand and business statement
- * Basic wireframes for key tasks/screens
- * Technology direction

bloomcase | showcase your creative process

http://bloomcase.com

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bloomcase

Project Name *last modified 10/3/12 by Megan*

view: story presentation

edit: description tags collaborators

add: inspiration idea sketch draft final

New Inspiration

Give it a title:
Eyeo Festival

Describe it:
The eyeo festival is an annual art, technology, data, and design festival that takes place in Minneapolis, MN.

Tag it:
festival, Minneapolis

What did it inspire?

Source URL:

upload image

This happened on: November 11, 2012 - 6:47pm

change date

SAVE or **Cancel**

zoom

Make a chart in D3
I realized that I needed to make a chart using d3, a data visualization programming language.

bloomcase | showcase your creative process

http://bloomcase.com

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bloomcase

New Tattoo *last modified 10/28/12 by Megan*

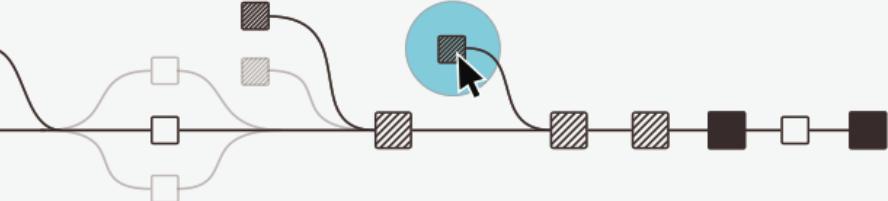
view: story presentation edit: description tags collaborators add: inspiration idea sketch draft final



October 1, 2012

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< ○○○○●○○○○○○ >

zoom - +

bloomcase | showcase your creative process

http://bloomcase.com

bloomcase

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Megan Miller



Morbi leo risus, porta ac consectetur ac, vestibulum at eros. Vestibulum id ligula porta felis euismod semper. Cras mattis consectetur purus sit amet fermentum. Integer posuere erat a ante venenael-lentesque ornare sem lacinia quam venena tisras mattis conse-
etur purus sit amet fermentum. Integer posuer vestibulum.

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Featured Projects / All Projects



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New Tattoo

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A 30 page annual report featuring glossy photos, an events timeline, and data highlights.

siCa graphic design annual report

I had a long way to go...

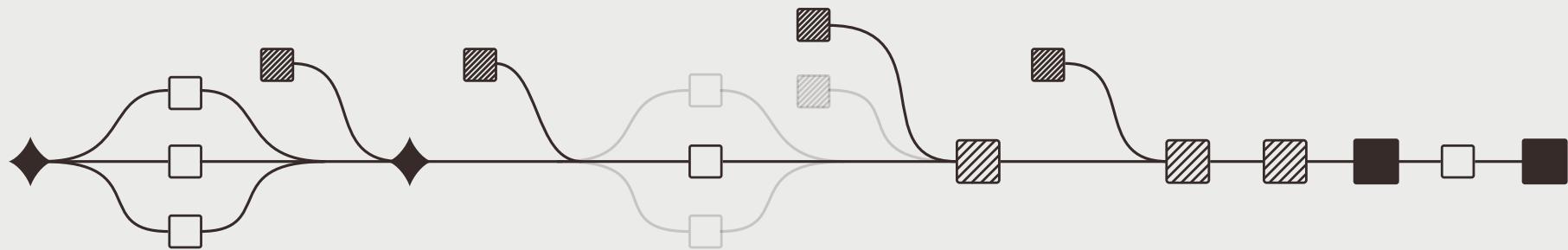
- * How to implement?
- * Interaction design?
- * Mobile interface?

... and a lot to learn:

- * d3
- * jQuery Mobile
- * more advanced javascript
- * Drupal integration

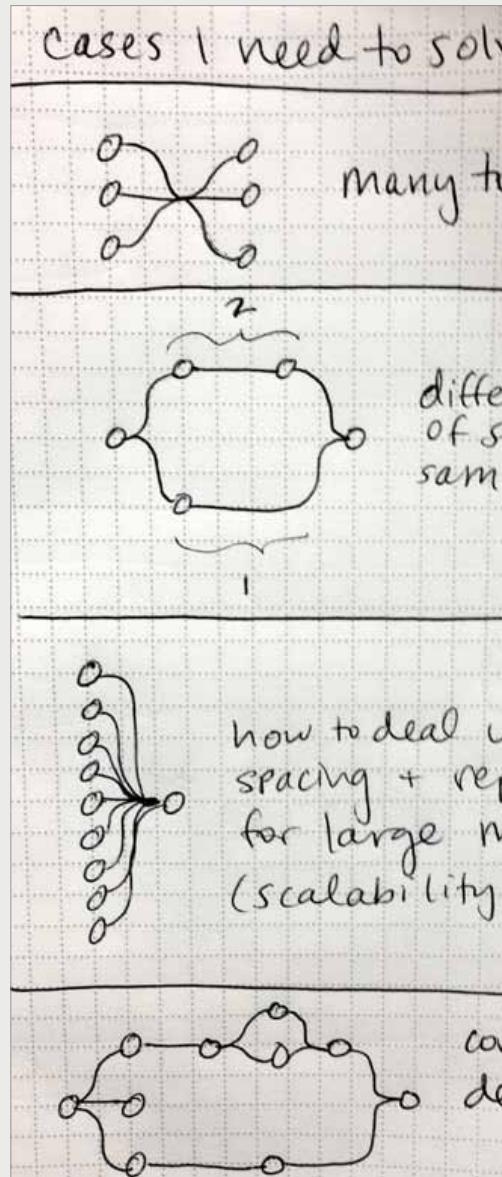
The first challenge

- * Learning d3
- * Making a prototype vizualization



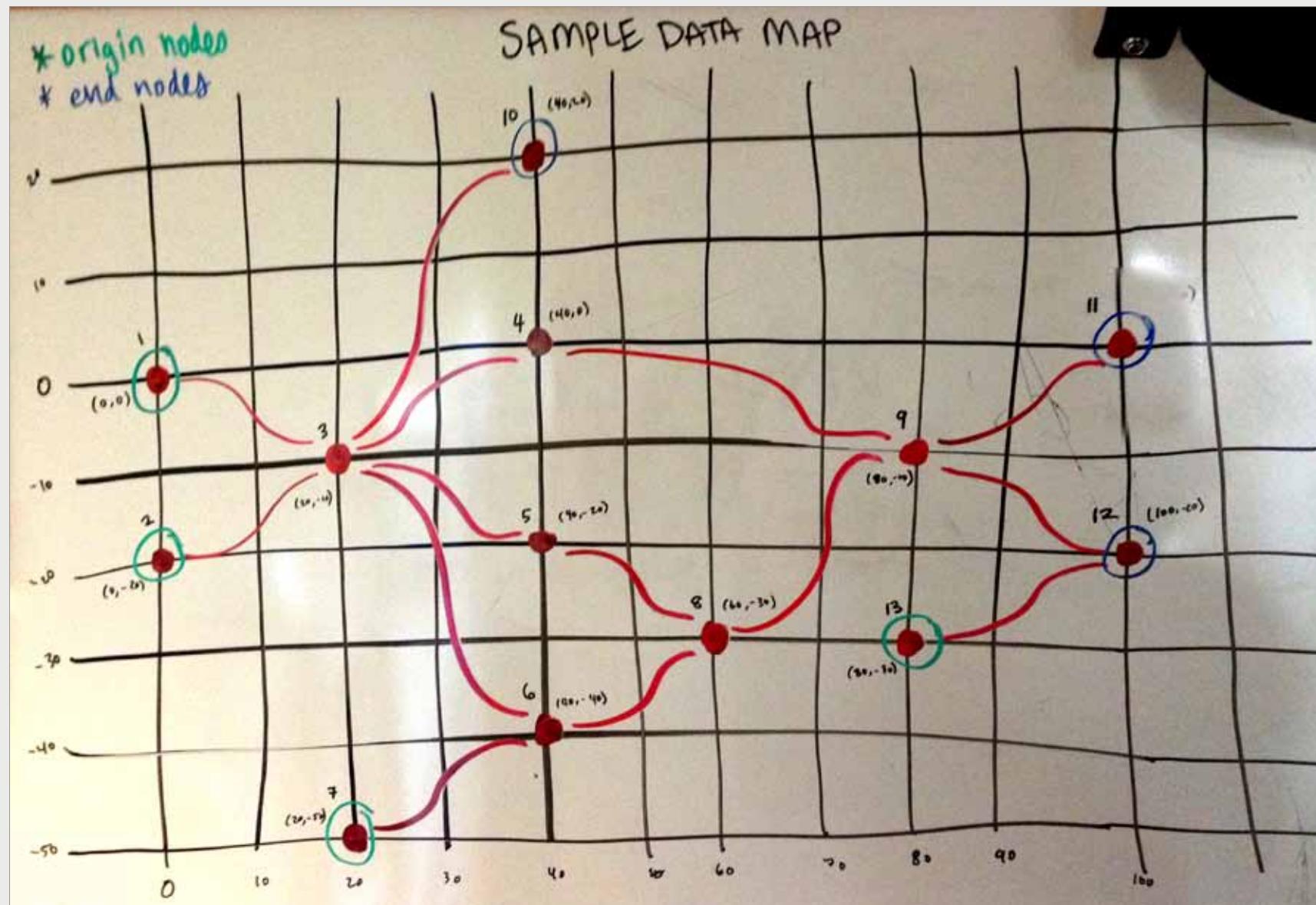
Logic, edge cases, sample data

- Parse evolvedTo arrays for each node (conv)
- Figure out column groups based on node rel
 - To generate evolvedFrom data** (from Loop through all nodes on evolvedTo
 - For each number in a node's evolvedTo (colGroup) at key = evolvedTo Example, for node ID1: "1" would be colGroup[3] (equivalent to IDs 2, 3, 4)
 - If multiple nodes reference the same node, those nodes get added as column. This is the evolvedFrom column.
- Find origin node(s)**: find the ID# that has the most evolvedTo This will tell us which node is the "first" inspiration Note: There may be more than one.
 - Null data in evolvedFrom indicates the origin node of the map, or inspiration node
- Find end node(s)**: find the ID# whose evolvedTo array is empty This will tell us the end node(s) on the map Note: There may be more than one.
 - Null data in evolvedTo indicate end nodes
- Store (x,y) position data for all nodes**
 - Start at node[1] (id=1, first node)
 - Set node[1] to = (0,0) position
 - Loop through all nodes in evolvedTo
 - Count length of evolvedTo (length * grid spacing) / degree of grid spacing relative to origin node.
 - Store (x,y) positions for each node



id	title	timestamp	evolvedTo
1	An organic tattoo	2012-11-12-20-00-00	2, 3, 4
2	First sketch #1	2012-11-12-20-05-00	6
3	First sketch #2	2012-11-12-20-10-00	6
4	First sketch #3	2012-11-12-20-15-00	6
5	My wedding flowers	2012-11-12-20-20-00	6
6	My tattoo as a memory of my wedding day	2012-11-12-20-25-00	8, 9, 10
7	Dahlia tattoos	2012-11-12-20-30-00	8, 9, 10
8	Sketch Idea #1	2012-11-12-20-35-00	13
9	Sketch Idea #2	2012-11-12-20-40-00	13
10	Sketch Idea #3	2012-11-12-20-45-00	13
11	Dahlia outline artwork	2012-11-12-20-50-00	13
12	Dahlia pictures	2012-11-12-20-55-00	13
13	Finishing the first flower	2012-11-12-21-00-00	15
14	A beautiful flower	2012-11-12-21-05-00	15
15	Adding the second flower	2012-11-12-21-10-00	16
16	Final draft of the outline	2012-11-12-21-15-00	17
17	1st Inking Session	2012-11-12-21-20-00	18
18	Considering Color	2012-11-12-21-25-00	19
19	2nd Inking Session	2012-11-12-21-30-00	NULL

My friend, the sample data map



What my data looked like

```
NODES:
▼ Array[15] ⓘ
  ▼ 0: Object
    ► [REDACTED]
    ► evolvedTo: Array[1]
      featured: "Y"
      fixed: true
      fullText: ""
      imageUrl: "images/earth-tattoo.png"
      index: 0
      kind: "inspiration"
    [REDACTED]
    nid: 1
    public: "Y"
    [REDACTED]
    [REDACTED]
    summary: "I have three tattoos already, but they are all astronomy or physics related. I had t
    tags: "tattoo, drawing"
    ► timestamp: Mon Nov 12 2012 20:00:00 GMT-0800 (PST)
    title: "Node 1"
    webUrl: "#"
    [REDACTED]
    [REDACTED]
    ► __proto__: Object
  ▷ 1: Object
  ▷ 2: Object
  ▷ 3: Object
  ▷ 4: Object
  ▷ 5: Object
```

What I needed it to look like

```
NODES:
▼ Array[15] ⓘ
  ▼ 0: Object
    columnGroup: 1
    ► evolvedFrom: Array[0]
    ► evolvedTo: Array[1]
    featured: "Y"
    fixed: true
    fullText: ""
    imageUrl: "images/earth-tattoo.png"
    index: 0
    kind: "inspiration"
    myLongestPath: 6
    myNestPosition: 0
    nid: 1
    public: "Y"
    px: 200
    py: 250
    summary: "I have three tattoos already, but they are all astronomy or physics related. I had t
    tags: "tattoo, drawing"
    ► timestamp: Mon Nov 12 2012 20:00:00 GMT-0800 (PST)
    title: "Node 1"
    webUrl: "#"
    weight: 2
    x: 200
    y: 250
    ► __proto__: Object
  ► 1: Object
  ► 2: Object
  ► 3: Object
  ► 4: Object
  ► 5: Object
```

Brilliant idea #1: recursive logic

The logic for this recursive function would be:

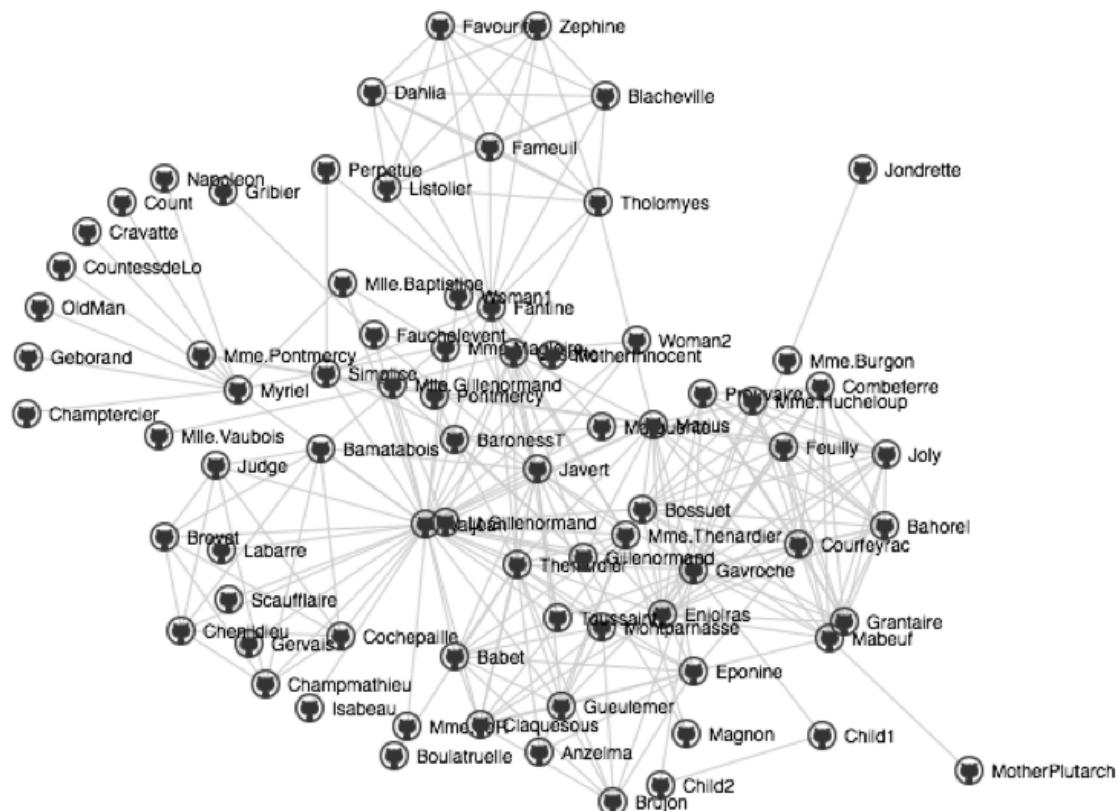
1. Set initial count = 0;
2. Set initial tempCount = 0;
3. Run recursive function countSteps(); on **all** origin nodes:
 1. If node is origin node,
 1. tempCount = 0; // reset tempCount
 2. Set node columnNum = tempCount // which at first will = 0, but later will reflect the appropriate column for each node as the tempCount increases
 3. If node has evolvedTo data:
 1. tempCount ++ //increase the tempCount to keep track of steps
 2. Run countSteps() on all evolvedTo nodes // recursive function call
 4. If node has **no** evolvedTo data:
 1. check if tempCount > count
 1. If so,
 1. set count = tempCount // we just found a longer path!
 2. If not,
 1. leave count as is

Brilliant idea #2: d3 force layout

[mbostock's block #950642](#)

Labeled Force Layout

February 12, 2013



Nodes and links

* d3 Force Layouts need two data sets:

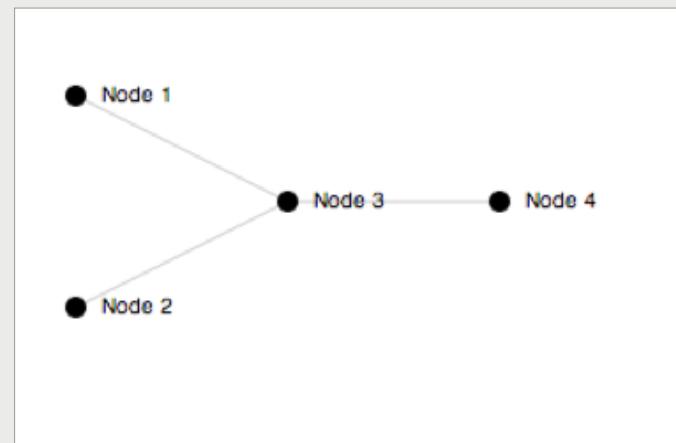
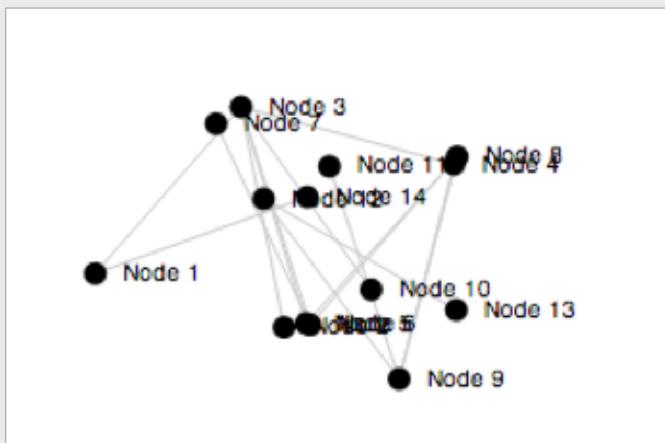
Nodes

- * My data (title, description, date, etc.)

Links

- * Individual connections between nodes

Making “column groups”



?

Sorting order of nodes

Horizontal:

- * column group based on relationships

Vertical:

- * ... timestamp?
- * ... relationship to the longest path?
- * ... number of connections?
- * ... type of node?

Vertical sort is hard!

- * No overlapping links
- * Nodes connected to the longest path go towards the center
- * Too many edge cases

The big realization...

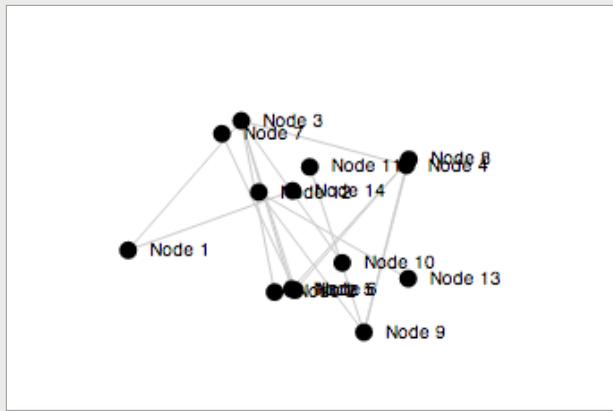
- * Most of my code is parsing the data
- * Getting my data into the right format
- * Filling in the gaps in the data model

My script

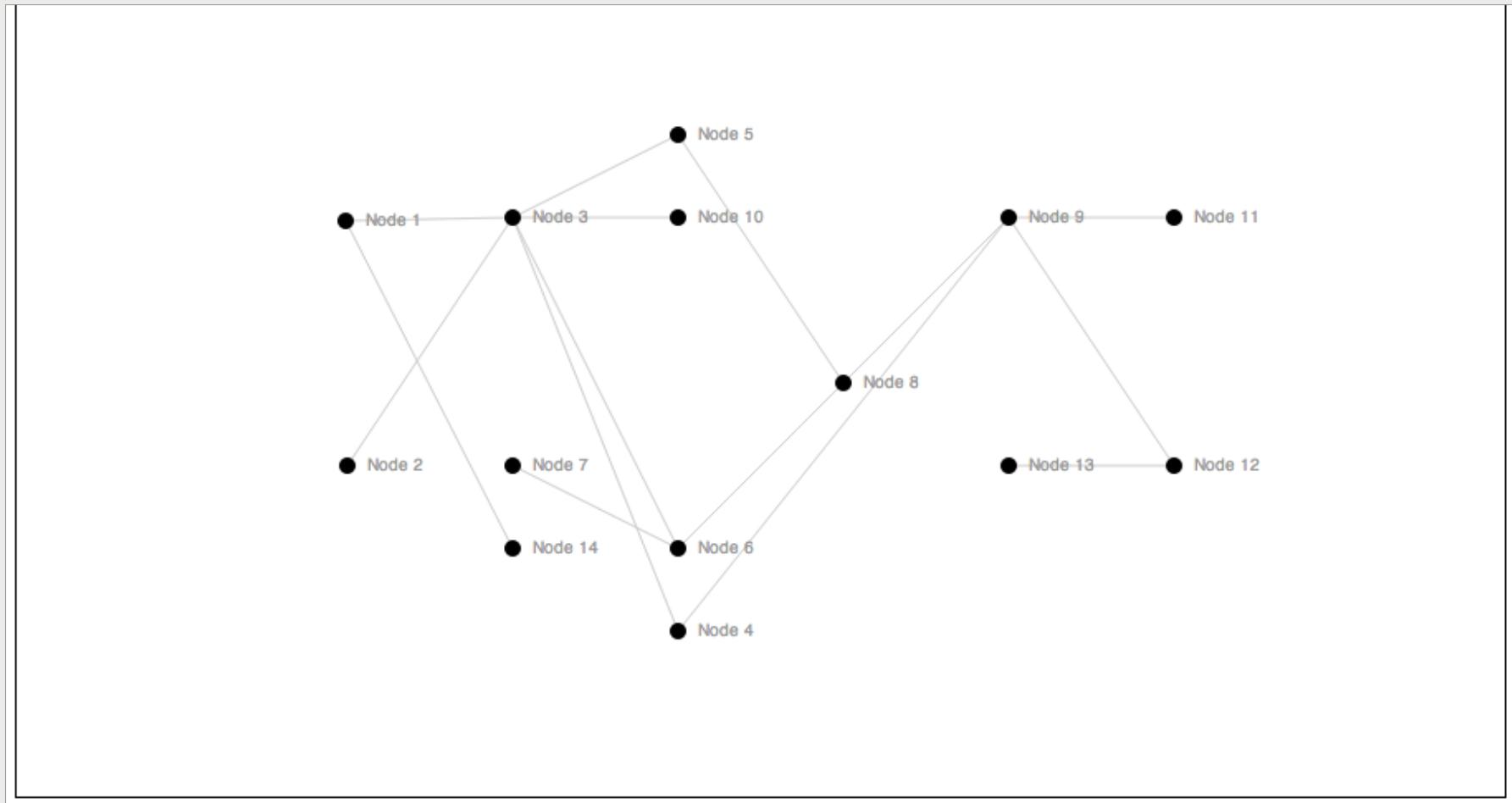
- * 300 lines parsing the data
- * 200 lines rendering the force layout (with comments)

```
17
18 <script>
19 // variables for processing data
20 var format = d3.time.format("%Y-%m-%d-%H-%M-%S");
21 var originNodes = [];
22 var endNodes = [];
23 var links = [];
24 var nodes = [];
25
26
27 // START getData function
28 function getData(myData) {
29   nodes = myData;
30
31   // reusable function for converting nested elements from
32   // string to int
33   function nestedToInt(myNest) {
34     myNest.forEach(function(d){
35       d.forEach(function(nestedElement) {
36         nestedElement = parseInt(nestedElement);
37       });
38     });
39
40   // START loop through data
41   nodes.forEach(function(d) {
42     // parse data
43     d.nid = parseInt(d.nid);
44     d.timestamp = format.parse(d.timestamp);
45
46     // convert evolvedFrom/To strings to arrays
47     d.evolvedFrom = d3.csv.parseRows(d.evolvedFrom);
48     d.evolvedTo = d3.csv.parseRows(d.evolvedTo);
49
50     // convert evolvedFrom/To data to ints
51     nestedToInt(d.evolvedFrom);
52     nestedToInt(d.evolvedTo);
53
54     // find all origin nodes
55     if(d.evolvedFrom == false) {
56       originNodes.push(d.nid);
57     }
58
59     // find all end nodes
60     if(d.evolvedTo == false) {
61       endNodes.push(d.nid);
62     }
63
64     // set default weight
65     d.weight = 1;
66
67     // set default myLongestPath
68     d.myLongestPath = 0;
69   });
70 }
```

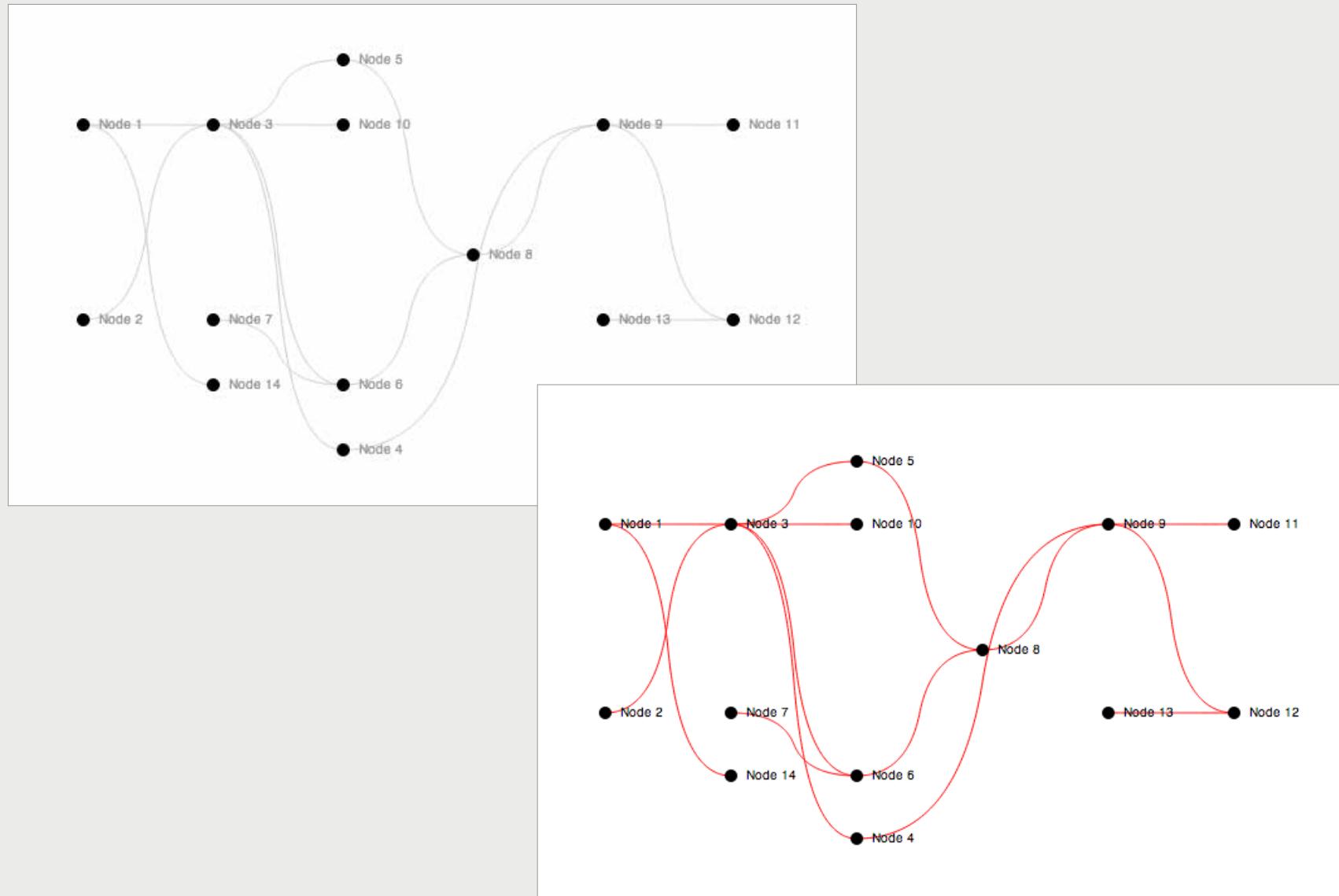
The evolution of my map



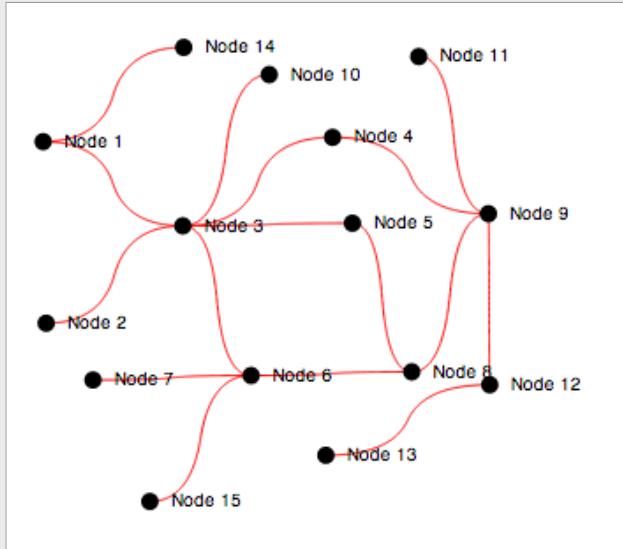
The evolution of my map



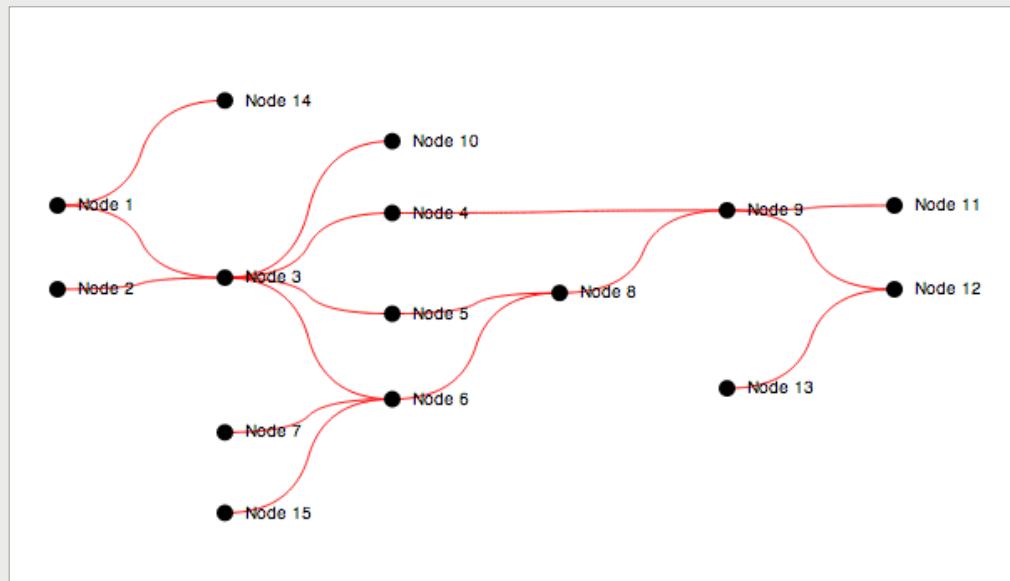
The evolution of my map



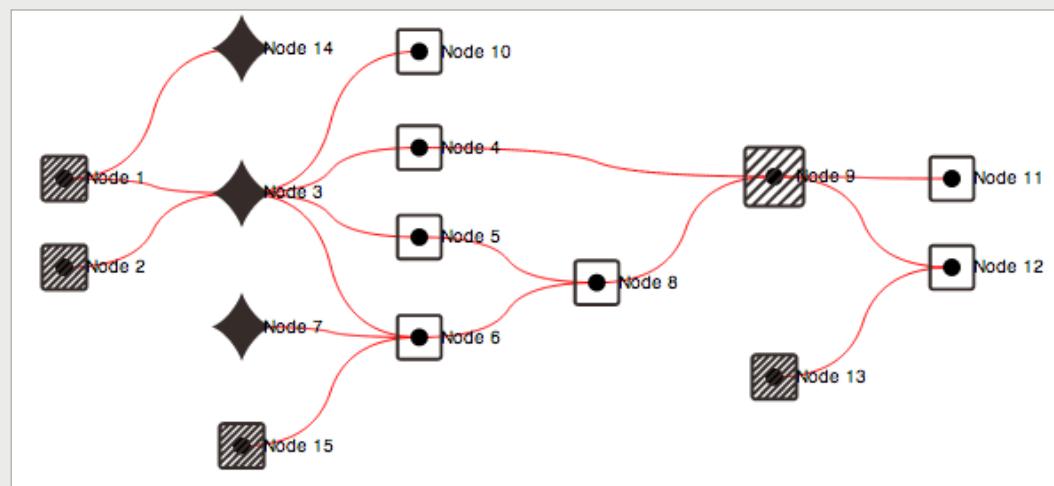
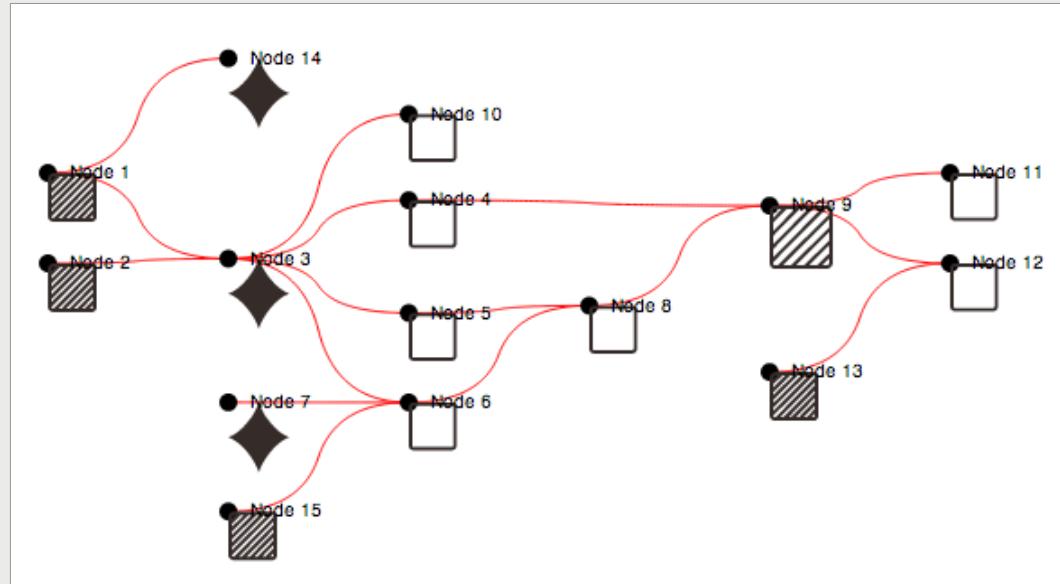
The evolution of my map



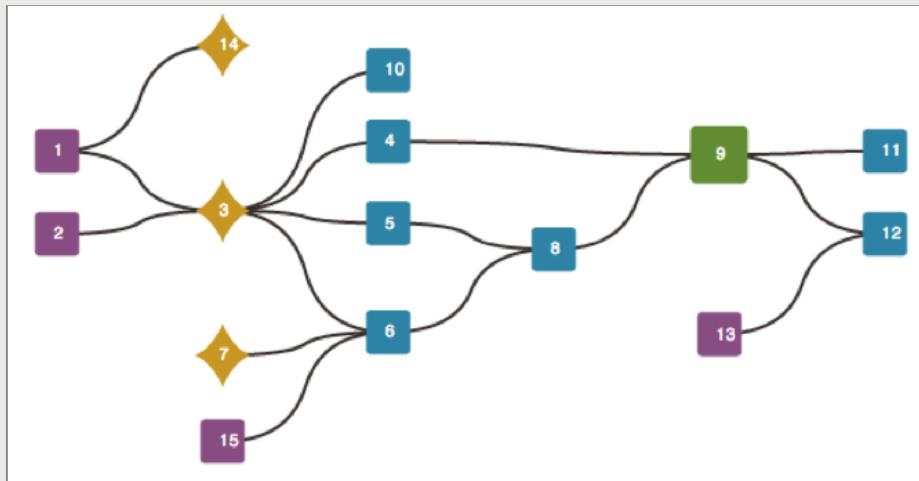
```
var force = d3.layout.force()
  .gravity(.06)
  .distance(100)
  .charge(-1000)
  .theta(1)
  .linkStrength(.3)
  .friction(.1)
  .size([chartWidth, chartHeight])
  .nodes(nodes) // target nodes data
  .links(links) // target links data
  .start();
```



The evolution of my map

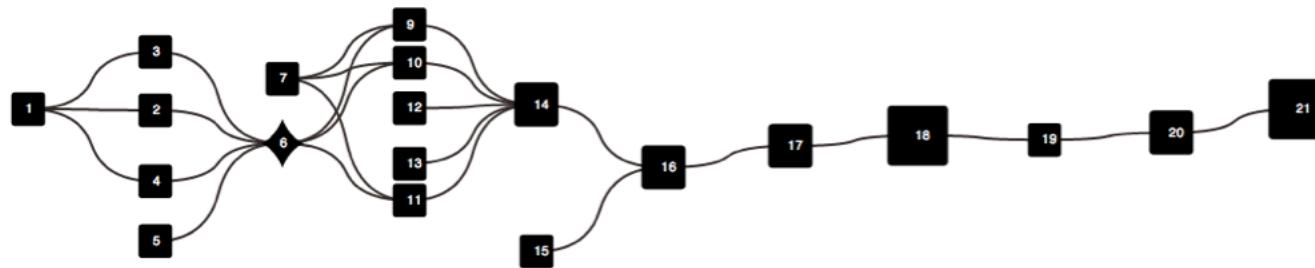


The evolution of my map



The evolution of my map

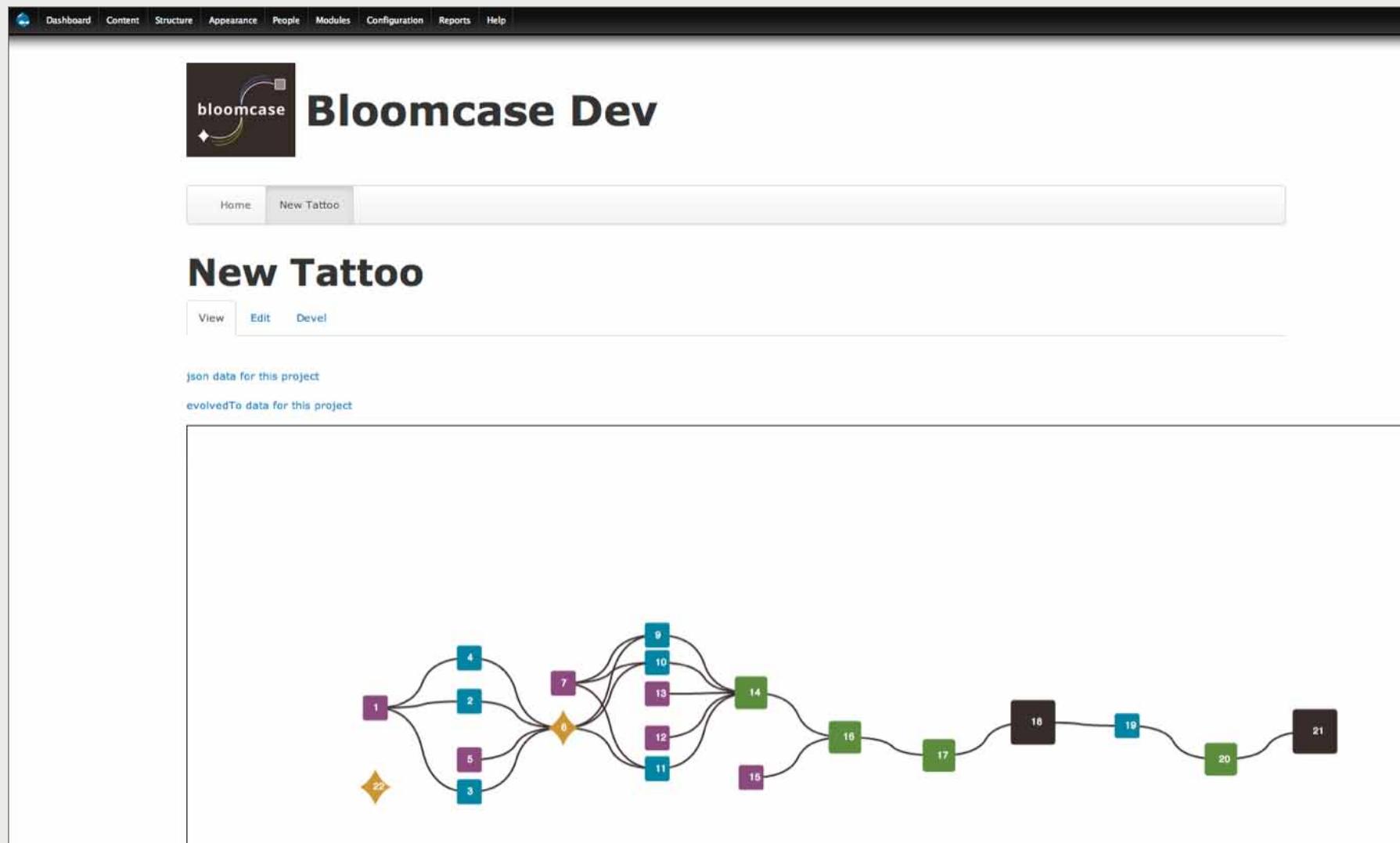
Testing linking to Drupal Json



My wedding flowers

I chose dahlias as my flowers for my wedding, which took place on July 21, 2012.

The evolution of my map



Drupal data -> json

LABEL	MACHINE NAME
⊕ Title	title
⊕ Summary	field_summary
⊕ Body	body
⊕ Default Image	field_default_image
⊕ External Link	field_external_link
⊕ Evolved From	field_evolved_from
⊕ Evolved To	field_evolved_to
⊕ Artifact Tags	field_artifact_tags
⊕ Artifact Type	field_artifact_type
⊕ URL path settings	path
⊕ Featured	field_featured
⊕ Public	field_public
⊕ Project Reference	field_project_reference

Displays

Block Page + Add

Block details

Display name: Block

TITLE
Title: Project Map

FORMAT
Format: Unformatted list | Settings
Show: Fields | Settings

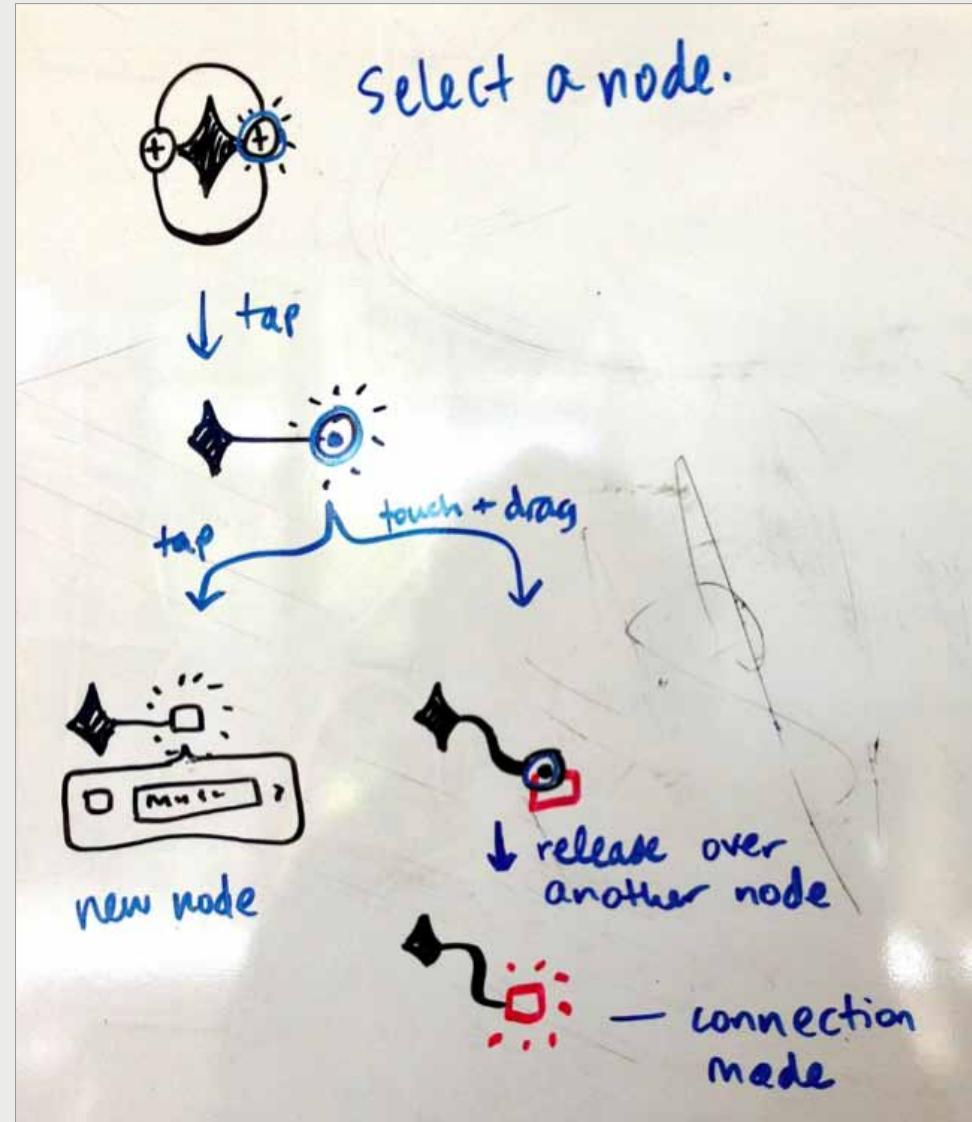
FIELDS [add](#)

- Content: Nid (nid)
- Content: Title
- Content: Post date (timestamp)
- Content: Evolved From (evolvedFrom)
- Content: Evolved To (evolvedTo)
- Content: Artifact Type (kind)
- Content: Summary (summary)
- Content: Body (fullText)
- Content: Default Image (imgUrl)
- Content: External Link (webUrl)
- Content: External Link (webUrlTitle)
- Content: Artifact Tags (tags)
- Content: Public (public)
- Content: Featured (featured)

```
{"nodes": [{"node": {"nid": "21", "title": "3rd inking session", "timestamp": "2013-03-18-07-15-10", "evolvedFrom":
```

Taking a step back... UI + UX

* Wait, how are people supposed to use this thing?

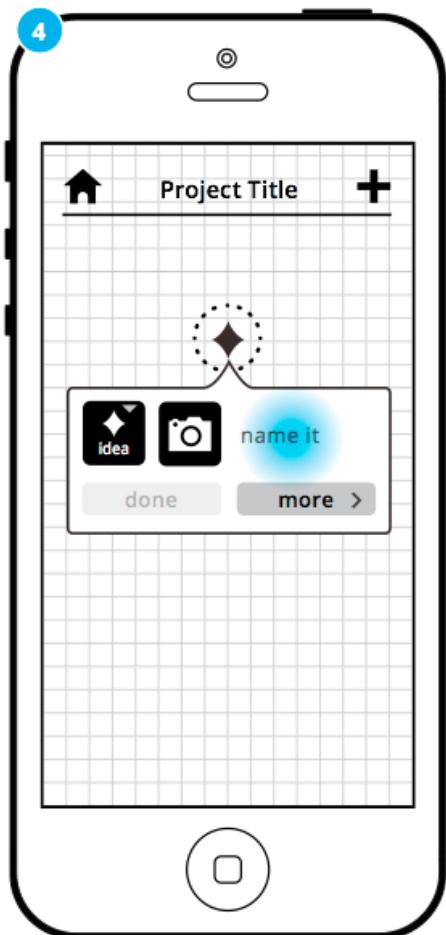


Identifying top user tasks

- * Create new projects
- * Edit projects
- * Add nodes
- * Edit nodes
- * Connect nodes
- * Disconnect nodes
- * Delete nodes

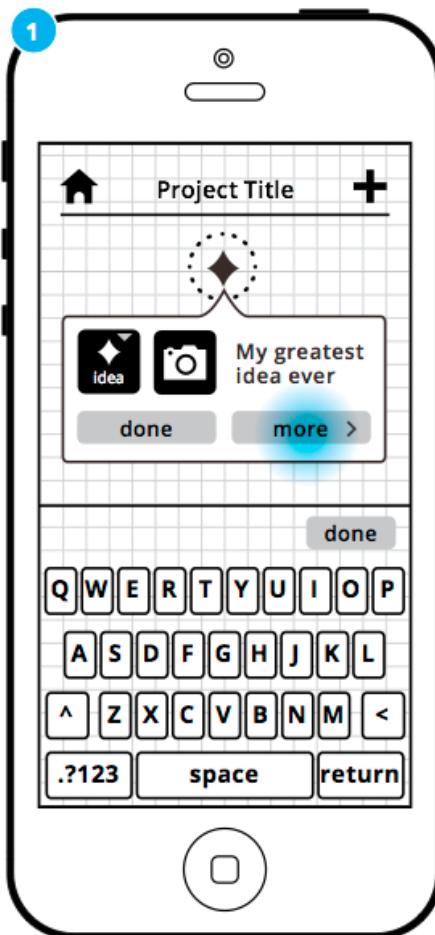
Mobile first

STORY #2: Create a new project //



Your new project.
When you create a new project, you
get a "starter" artifact. It prompts you

STORY #3: Add an artifact to your new project

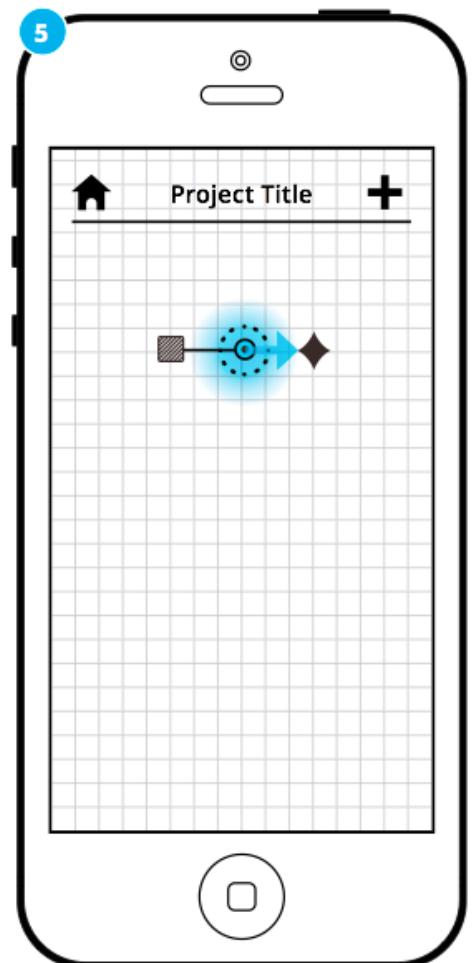
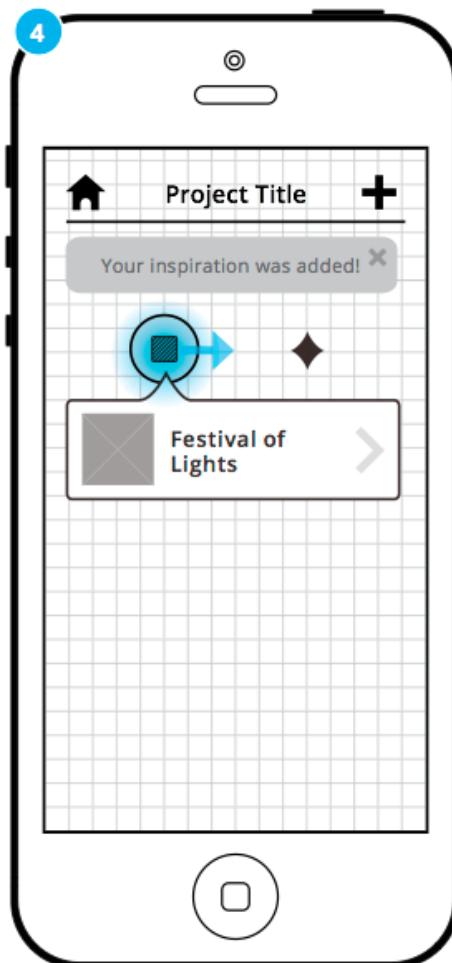
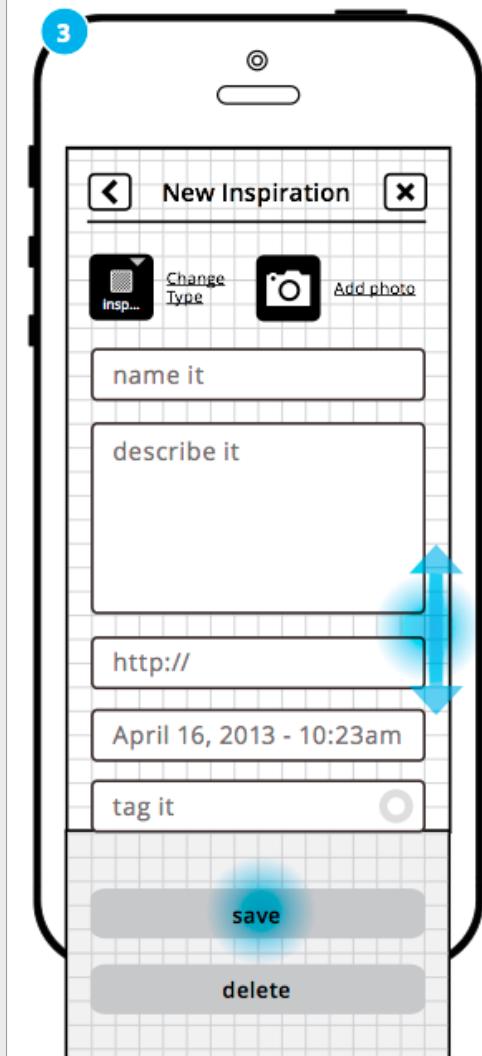


Quick add form for artifacts.
After adding a title in the Quick Add
form, you can click "done" from the



Mobile first

STORY #4: Create another artifact and connect it to the first one

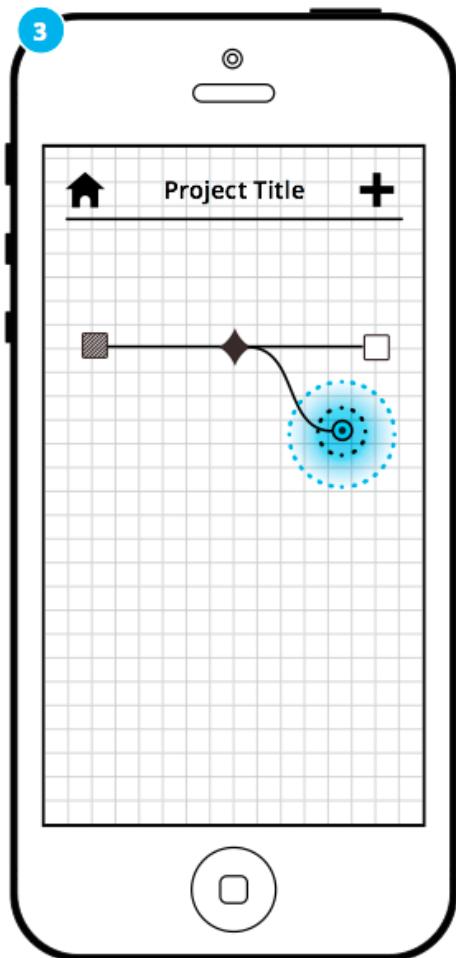


Your artifact has been added.
Your new inspiration is added to the

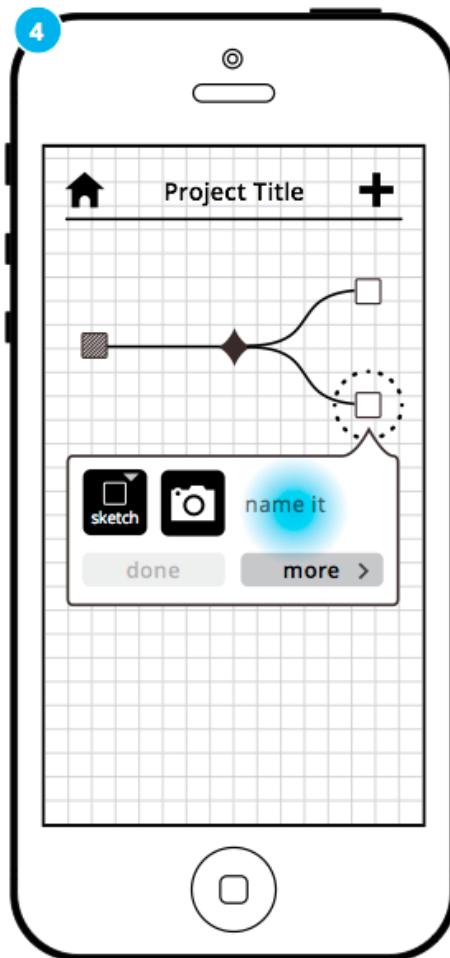
Connection handle.
You drag the handle over another

Mobile first

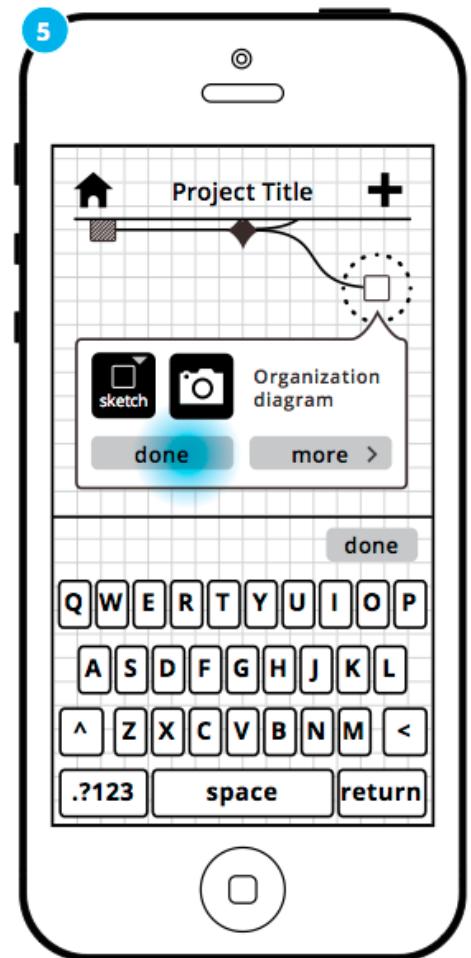
STORY #6: Add another sketch



Release to make a new artifact.
Release to make it into another sketch.



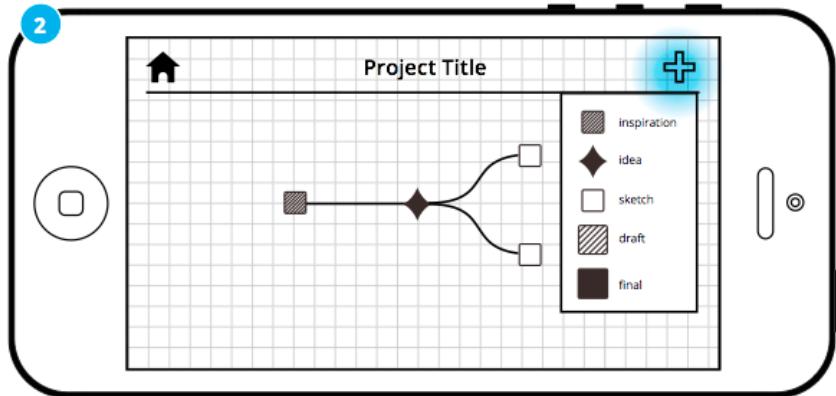
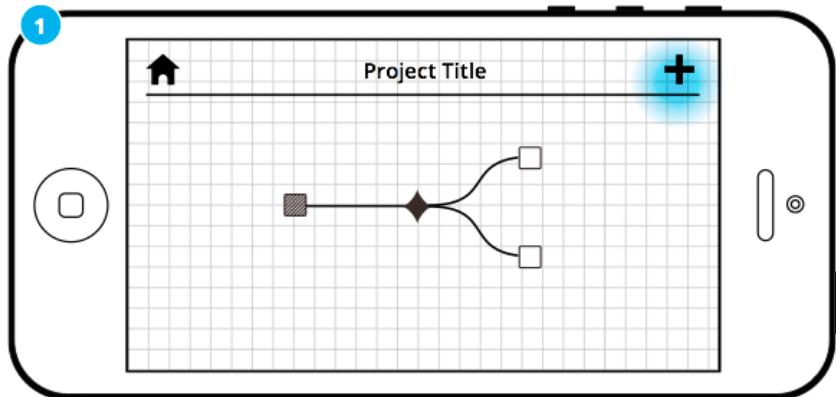
Name it.
The sketch is created, and the map



Add a title and save.
If you don't want to add a picture, you

Mobile first

STORY #8: Landscape mode



INTERACTION KEY



Unselected State



Highlighted State

New artifacts, changed artifacts.
Feedback for the user.



Selected State

On touch/click you see a tooltip pre-view. To edit/delete you must click on the tooltip.



Tap/Touch/Click

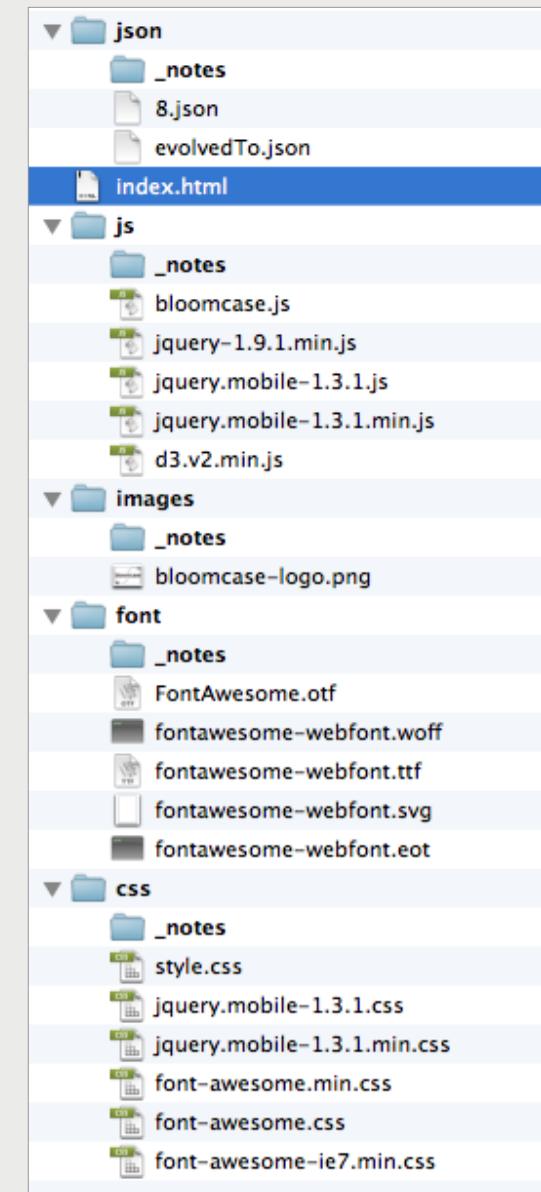
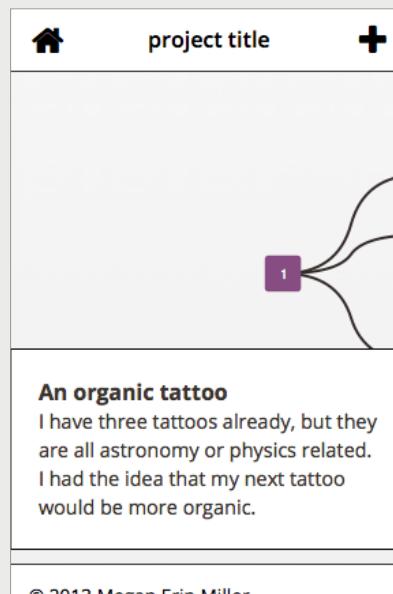
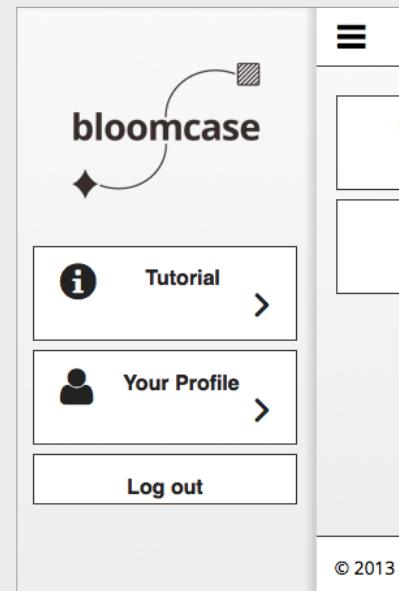
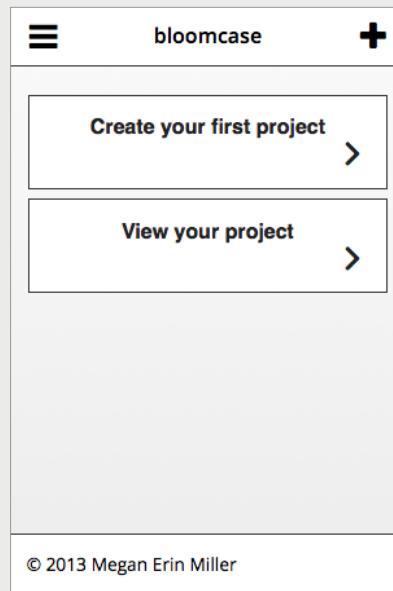
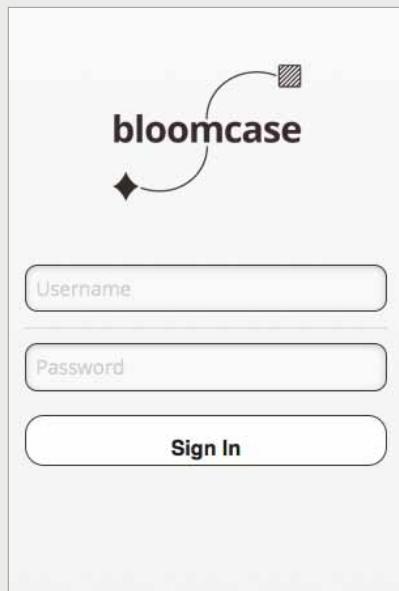


Touch/Click and drag



Release

jQuery Mobile prototype



Next steps

- * Merge jQuery mobile prototype with Drupal
- * Code up map interaction for top tasks
- * Continue developing mobile and desktop wireframes

Then...

- * Visual design
- * Testing
- * BETA users

What I accomplished

- * Prototype using on sample data
- * Migrating code to integrate with Drupal
- * Mobile interface and UX design
- * jQuery mobile prototype development

