

Using Dependency Mapping To Enhance Testing Techniques

Melissa Eaden and Lisa Crispin

@melthetester
@lisacrispin

12:45 start

Lisa

A little about us

Mel



mabl



unity



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@lisacrispin



How about you?

Testers/QA?

Developers?

BAs?

Managers?

?

...

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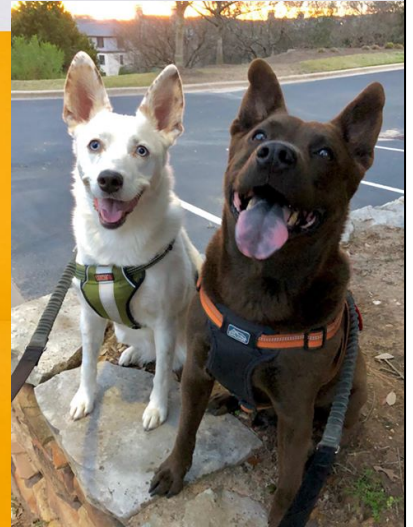
Lisa

Just a placeholder pic, I believe you have real dogs in party hats?

What to expect

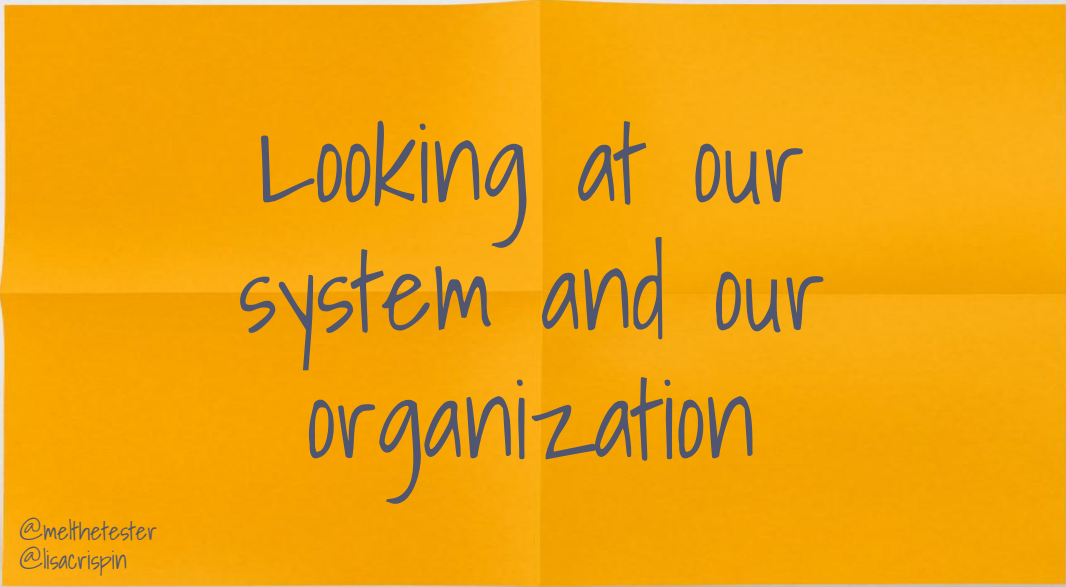
- A SAFE PLACE
- Experiment & Learn
- Questions & stories welcome!
- Try this with your team
- New insights & Fun!

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@lisacrispin



Lisa

We want you to succeed. We're doing our best to create a great environment for you to learn. Take responsibility for your learning. If you struggle or have questions just ask for help. Please help each other too.

A yellow sticky note is centered on a light gray background. The note has a vertical crease down the middle and a horizontal crease near the bottom. Handwritten in black ink on the note is the text "Looking at our system and our organization". In the bottom left corner of the note, there are two lines of smaller text: "@melthetester" and "@lisacrispin".

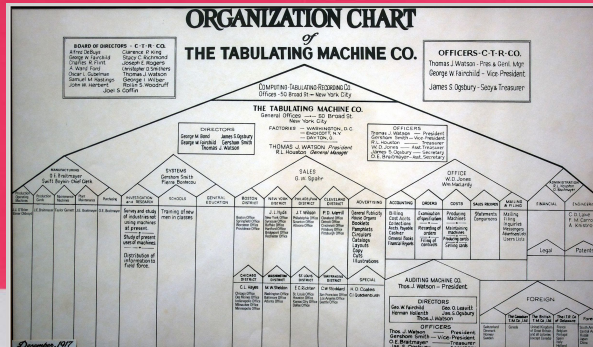
Looking at our
system and our
organization

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@lisacrispin

12:54 (allowing for late start)
Mel

The Conway Trap

"organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations." - Melvin Conway



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@lsacrispin

Mel

Typical software org - server/backend, frontend, database, ops... and the org chart looks like that too.

Why dependency mapping?

- Lateral thinking
- Identify and forge new relationships
- unknown unknowns
- Identify risk areas
- Focus testing

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@lisacrispin

Mel

Mel's Examples

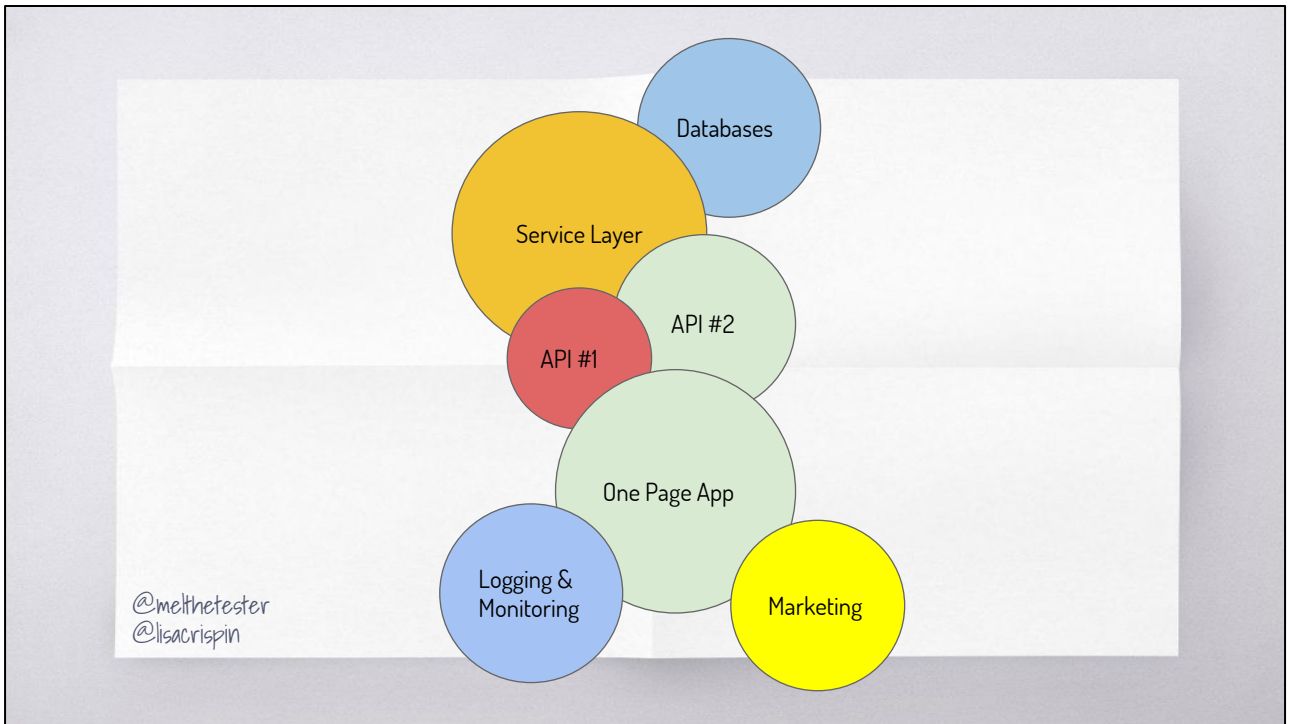
- An embedded single page application
- A front page with embedded features
- Digital application map example

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13:02

(10 minutes target for this section)

Mel



Mel

Dependency mapping is exactly what it looks like. You decide what the core piece of your puzzle is and then slowly build up a picture around what makes it work.

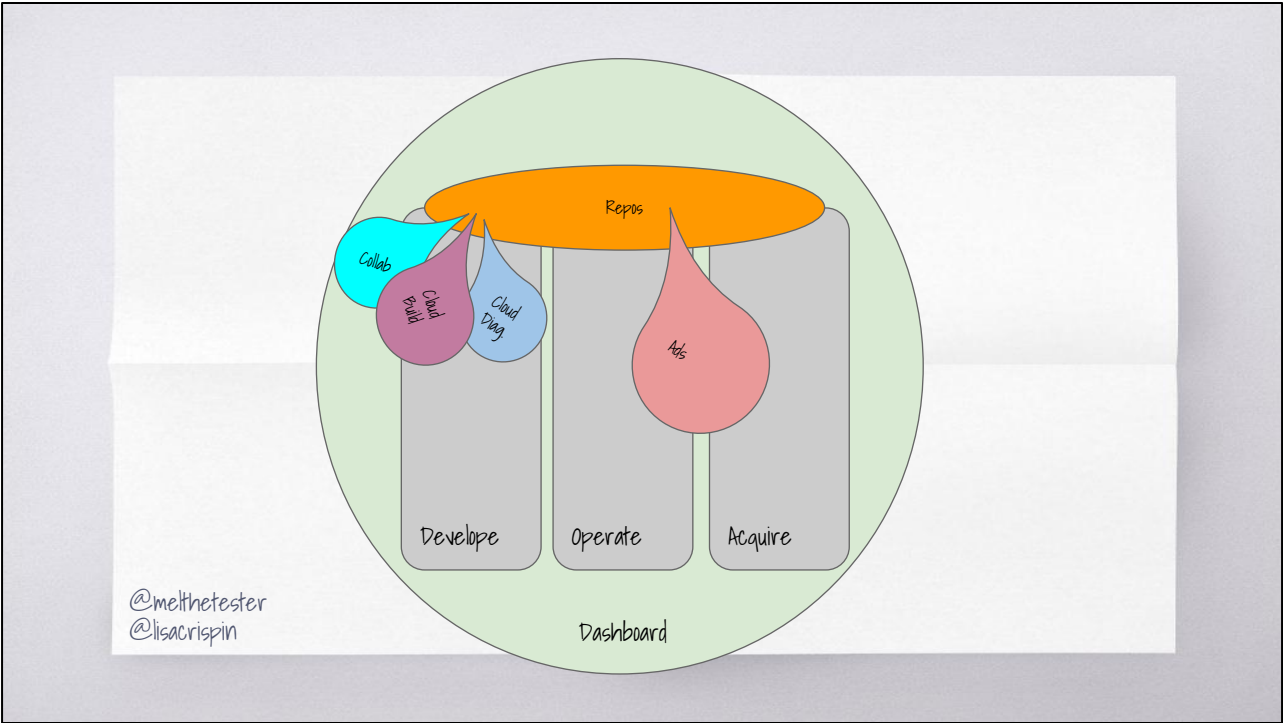
This is much simpler example of a dependency mapping I did for a one page application. Without the various blobs, the application would have a partial or a total failure. The next interesting bit about this application is each color represents what different teams own.

It's not always like that. This app could have easily been managed by one or two teams. Touch points are crucial to understand. I'm sure you all have dealt with something similar. I did was give it a visual context.

Quick Key:

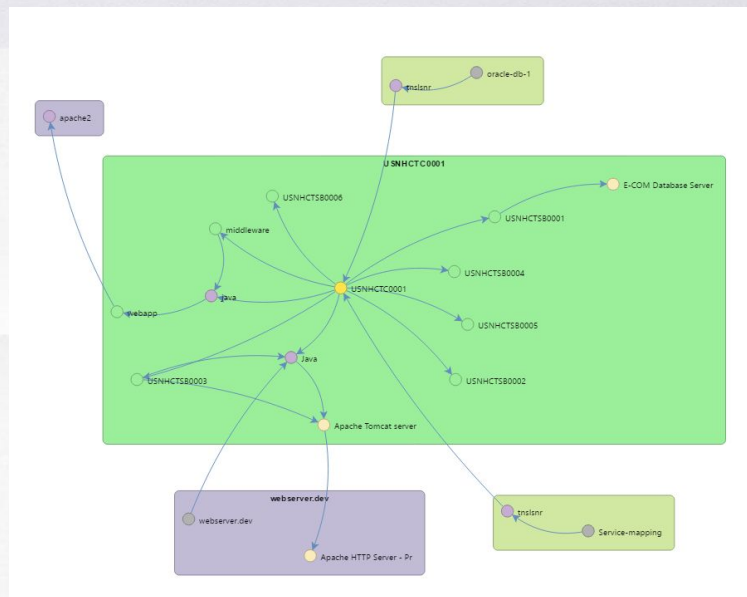
Circles in front of the one page app are front end dependencies
Circles in the back of the one page app are back end dependencies
They are also colored by teams that own those dependencies

Additional suggestion might be to show how much surface area (ie venn diagram like) the application depends on different parts.



Mel

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Mel

From: <https://www.device42.com/features/application-mappings/>

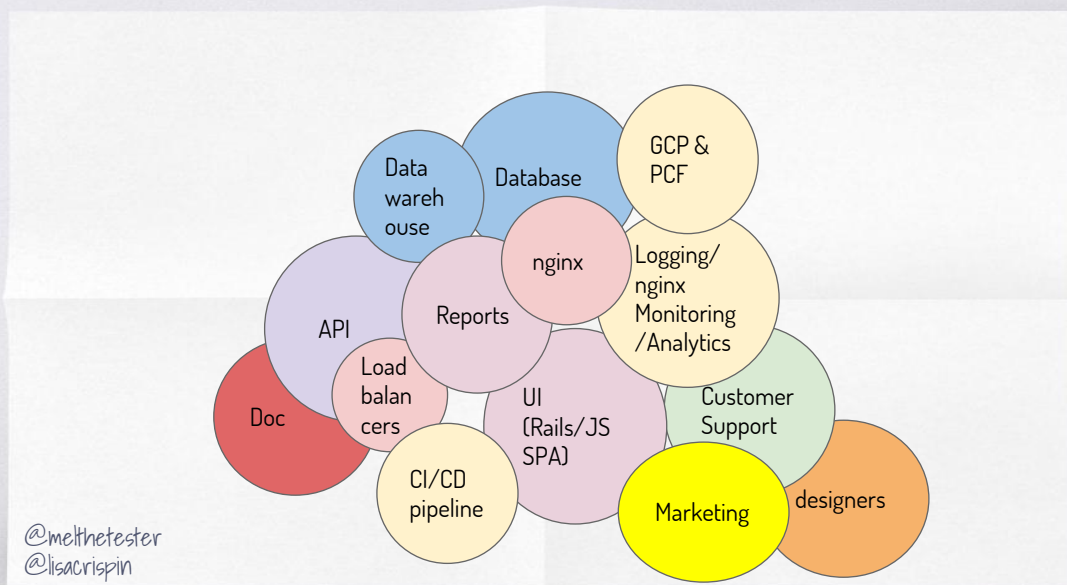
Lisa's Examples

- An online project tracking tool running in the cloud but traditional server/web architecture
- An automated test tool running the cloud with microservices

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13:12

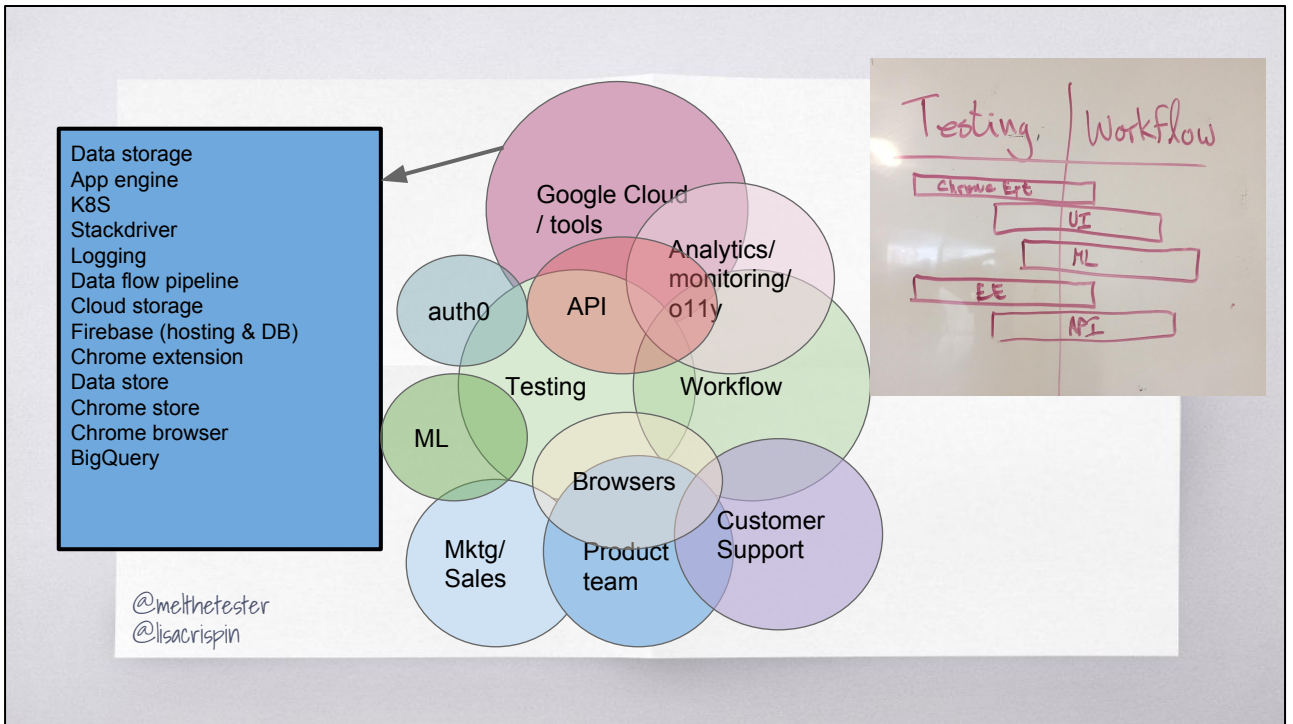
Lisa



Lisa

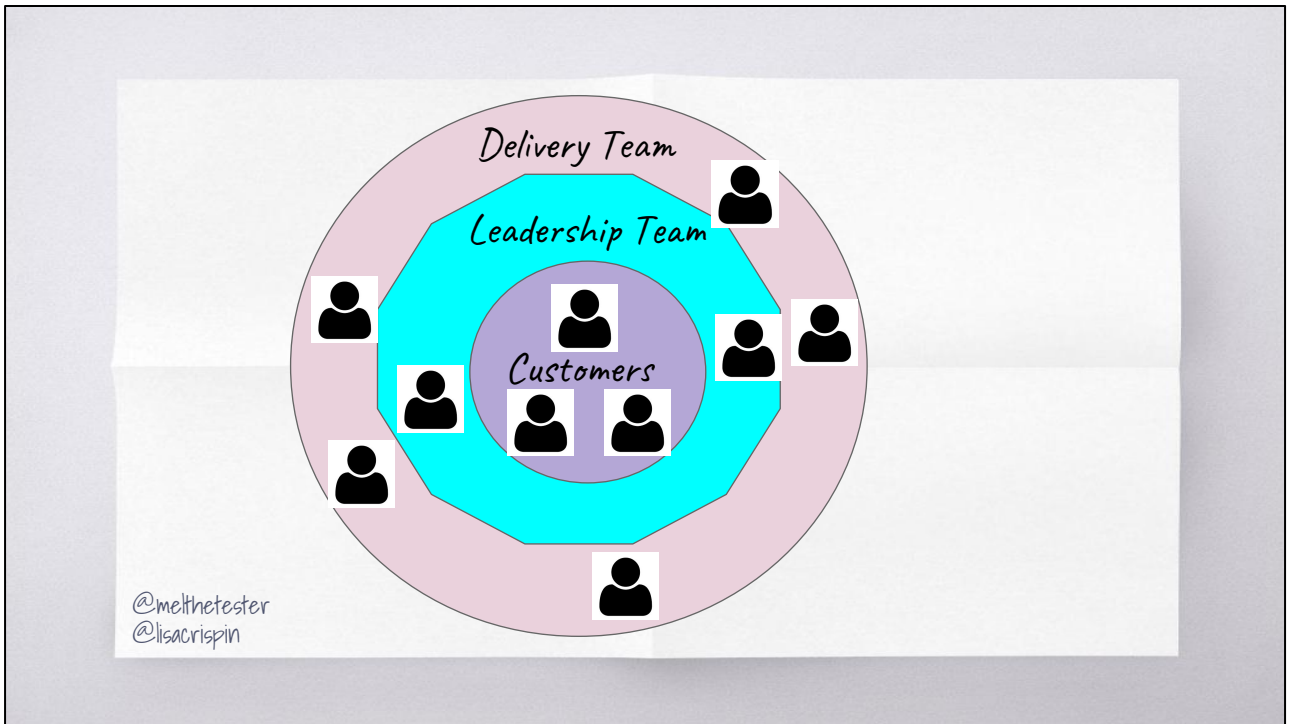
his represents the Tracker product. It's hard to show all the touch points as they may overlap so much.

I didn't use the same key as Melissa. I'm more concerned with identifying areas we may not have thought about and seeing what relationships we need to build. For example, it helps to work closely with designers. We don't want to forget the importance of doc.



Lisa

The app is somewhat divided by testing and workflow and the teams are somewhat organized that way, but the teams reconfigure almost every sprint.



Lisa

Lisa - my team is basically doing inverse Conway's law, at least, we are consciously organizing to not be subject to it. No hierarchy, organization has a "nucleus" type setup, architecture is microservices, cloud, owned by everyone.

Lisa's company organization. Vision, values and capital are in the middle there too. No hierarchical structure, at least on paper. People do take leadership roles, but the teams are self-organizing. Scaling will be having multiples of these nuclei linked together.

Now Draw!

- MAKE A GROUP (Not with Co-workers!)
- TALK TO EACH OTHER & ASK QUESTIONS
- DRAW YOUR DEPENDENCIES
- USE WHITEBOARD PAPERS & MARKERS
- WAVE YOUR ARM IF YOU NEED HELP!!

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13:22

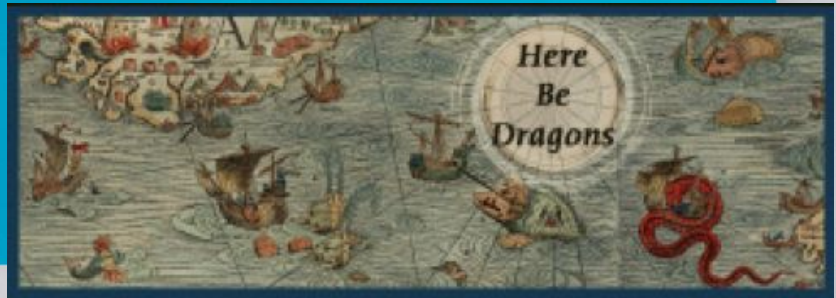
Lisa

30 minutes at least - have them switch every 10 minutes

Share & Tell

- LET'S TALK ABOUT WHAT WE LEARNED!
- LOOK AT EACH OTHERS DEPENDENCY MAPS

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13:52

Lisa

15 minutes

Ask about risks people identified. Ask about how folks are planning on minimizing the risks and what ideas they came up with to minimize them.

Wrapping up

Conversations about dependencies help us:

- 1) Visualize application interactions
 - 2) understand application risks
 - 3) Create new communication patterns
- * build new relationships

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14:08

Mel

2 minutes

Feedback

Please help us improve!

(USE A STICKY NOTE)

- What is the most valuable thing you are taking away to try?
- What was the least valuable thing for you?

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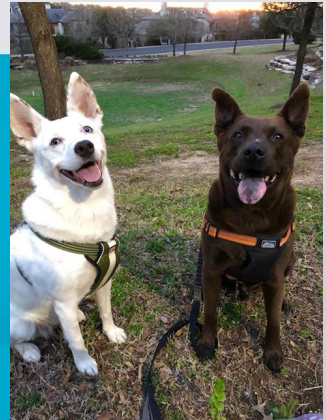
@lisacrispin

14:12

Mel

Let's keep in touch!

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@melthetester
@lisacrispin



Gratuitous donkey picture - we don't have to use it, I just want to get one in SOMEwhere.

References

<https://www.device42.com/features/application-mappings/>

<https://demo.uila.com/2.2.0.2181fdb/index.html#/dashboard>

<https://www.thoughtco.com/lateral-thinking-1856882>

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| 23

14:14

Door prizes

14:15 END