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PMP

creative solutions to help
organizations evolve

Making Your QA Metrics & Measurements Matter

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Chicago Quality Assurance Association

About me

I am a multidimensional leader with the ability to drive both strategic and tactical priorities. Over the past 25+ years, I have developed expertise in areas including executive leadership, financial management, project management, software quality assurance, business analysis, and data visualization. From a global perspective, I have worked with Fortune 500 companies and multinational teams in countries including Australia, Brazil, China, England, France, Germany, India, Ireland, Italy, Philippines, Switzerland, Uruguay. I am the author of Lead Yourself First and co-author of Software Quality Assurance 101: Best Practices Made Easy. With my passion for learning, I have earned my Project Management Professional certification, master's degree in business administration, Professional Scrum Master I certification, and Distinguished Toastmaster credential.

Topics

- Blink and you won't miss it!
- Tell me a story
- Ta-da! From data to visuals
- The creative process (and tools!)



What did you see?

Blink and you won't miss it!



9 seconds



5 seconds



Tell me a story

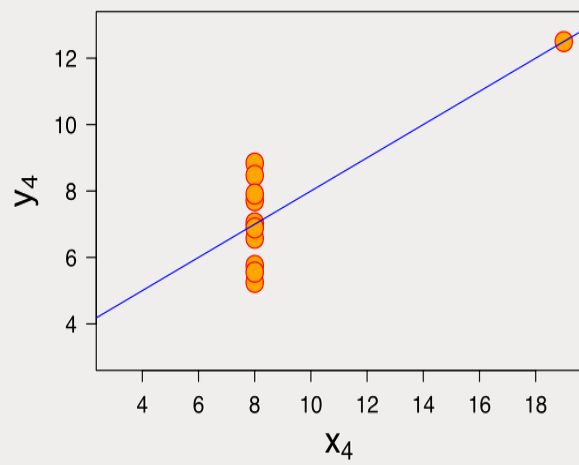
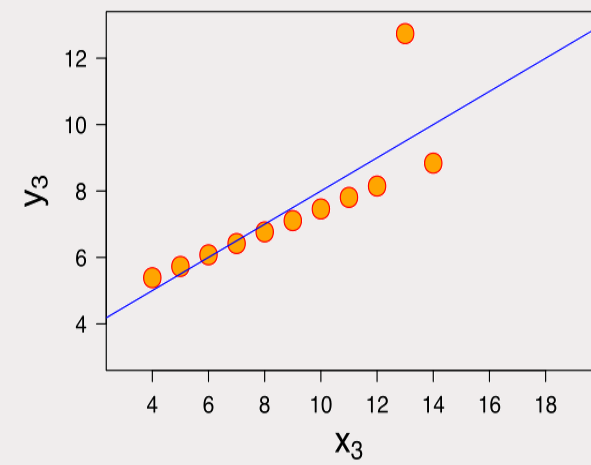
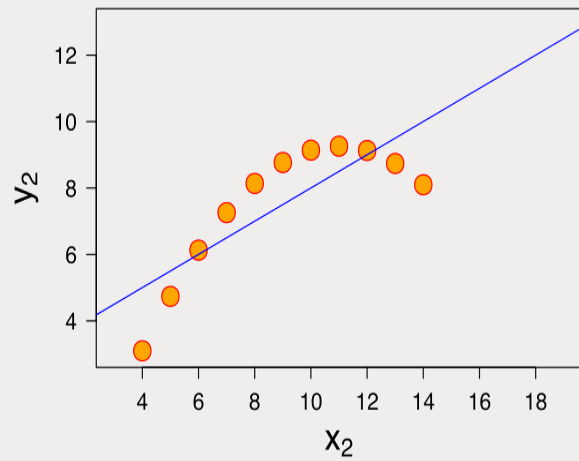
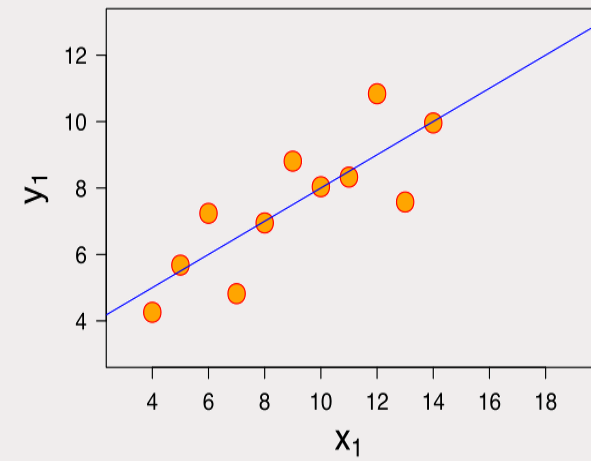
Neural
coupling

Dopamine

Mirroring

Cortex
activity







The story of the data

- What should be DONE with the data?
- What is the MEANING of the data?
- Why is this data IMPORTANT to the audience?
- Who is your AUDIENCE?
- How is the information going to be DELIVERED?

Fats, Oils & Sweets
USE SPARINGLY

KEY
● Fat (naturally occurring and added)
■ Sugars (added)
These symbols show fats and added sugars in foods.

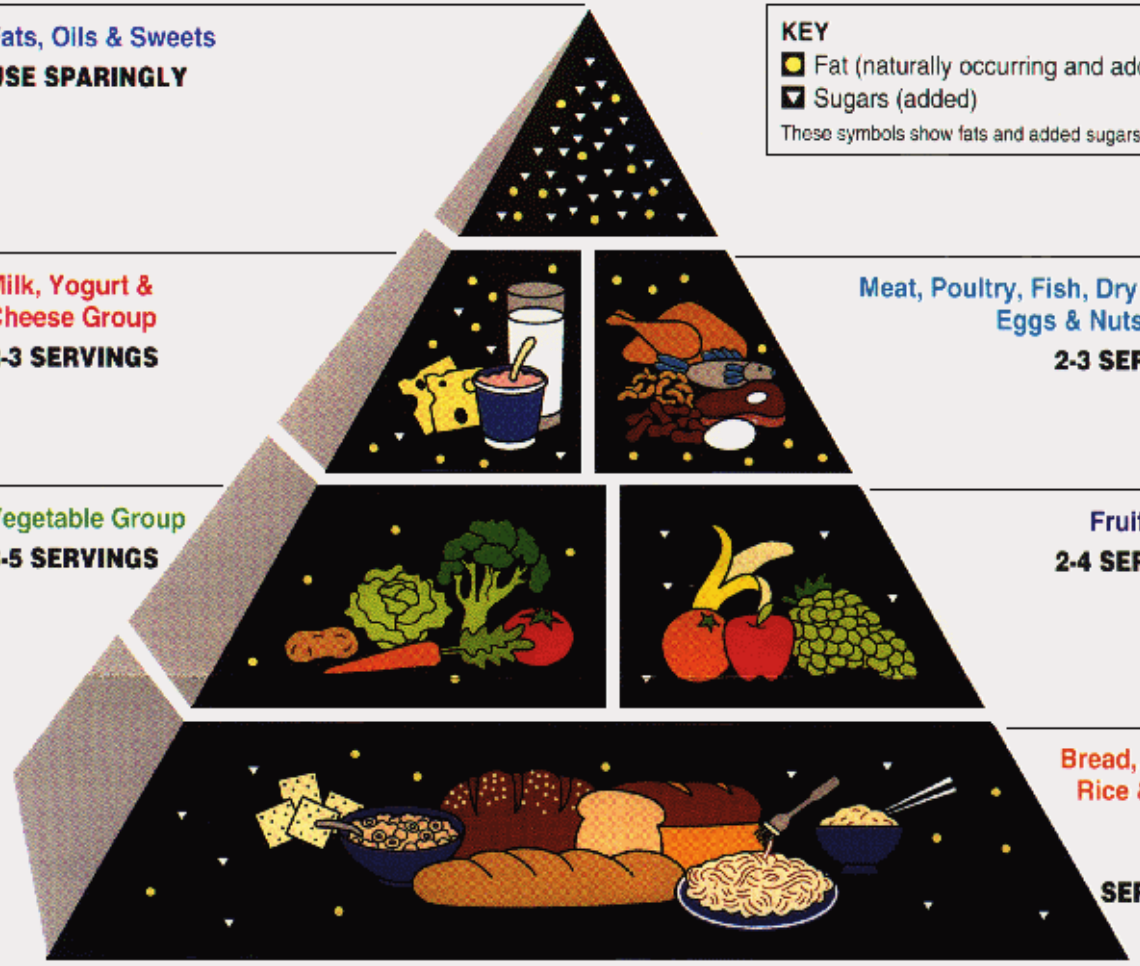
Milk, Yogurt & Cheese Group
2-3 SERVINGS

Meat, Poultry, Fish, Dry Beans, Eggs & Nuts Group
2-3 SERVINGS

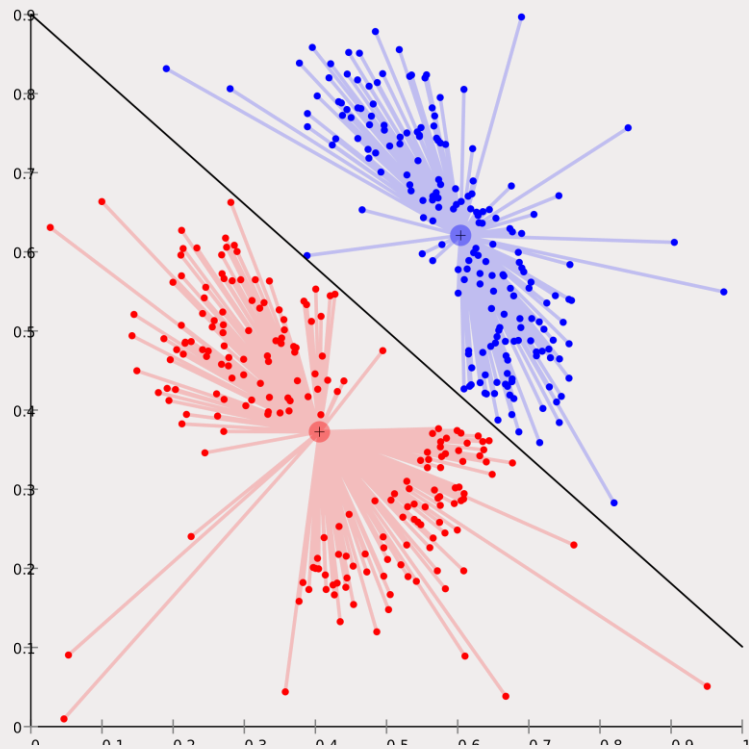
Vegetable Group
3-5 SERVINGS

Fruit Group
2-4 SERVINGS

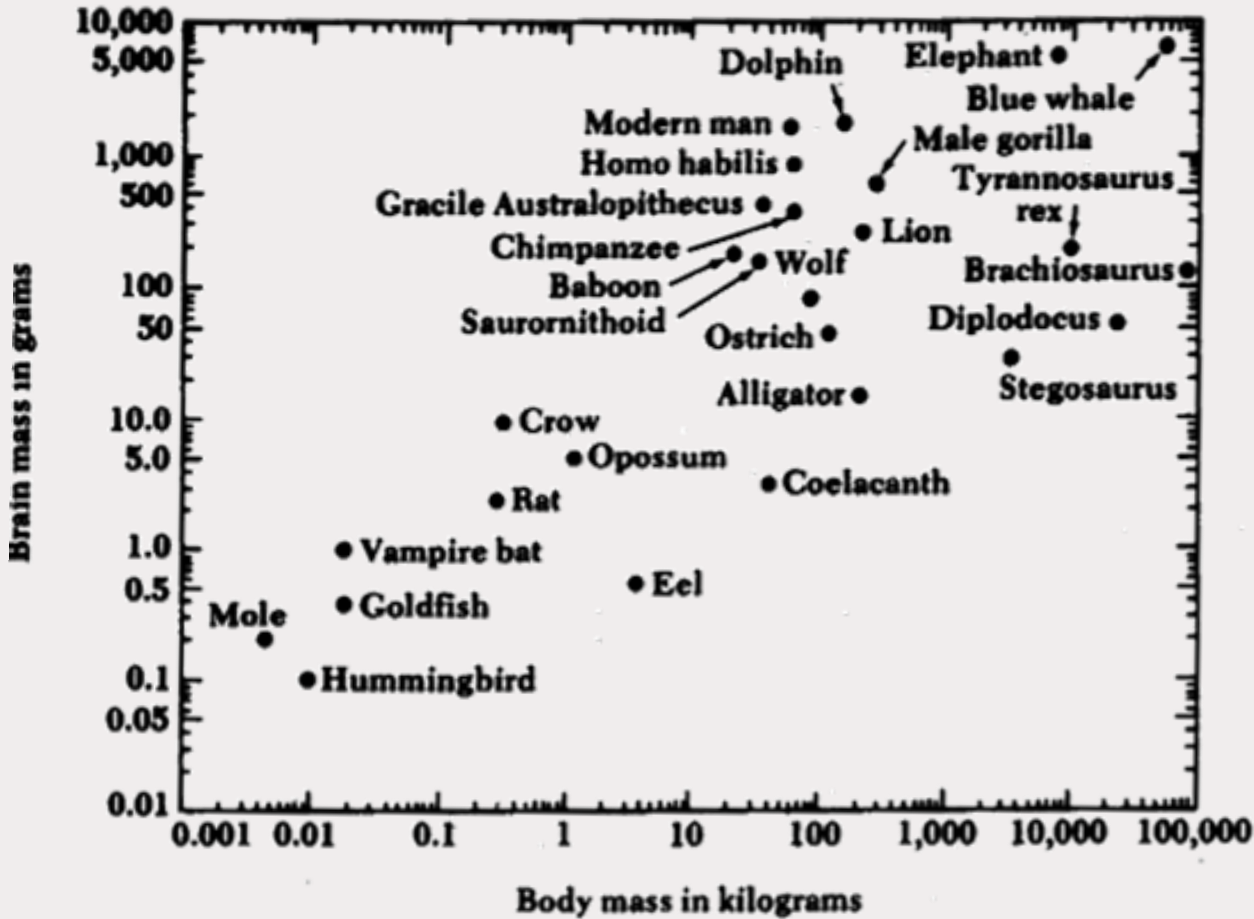
Bread, Cereal, Rice & Pasta Group
6-11 SERVINGS



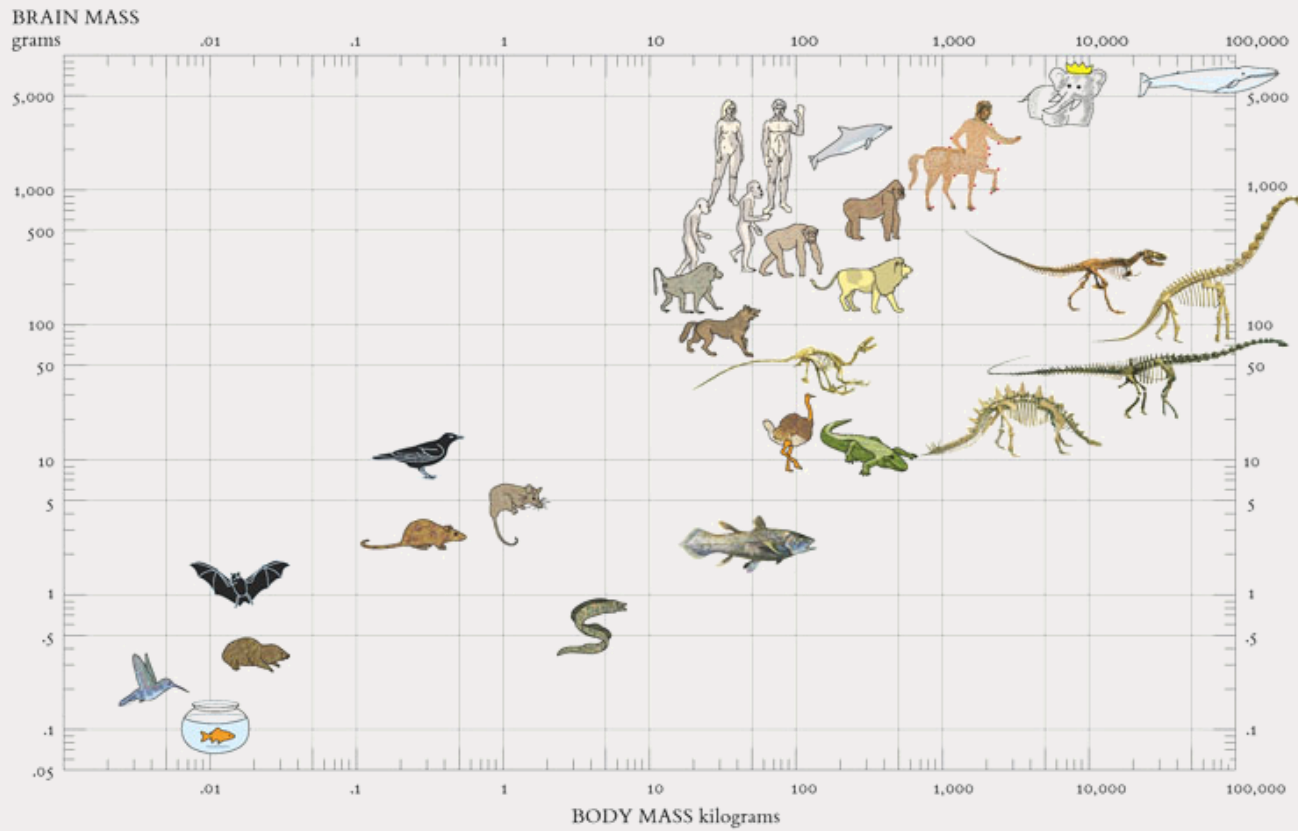
Ta-dah! From data to visuals



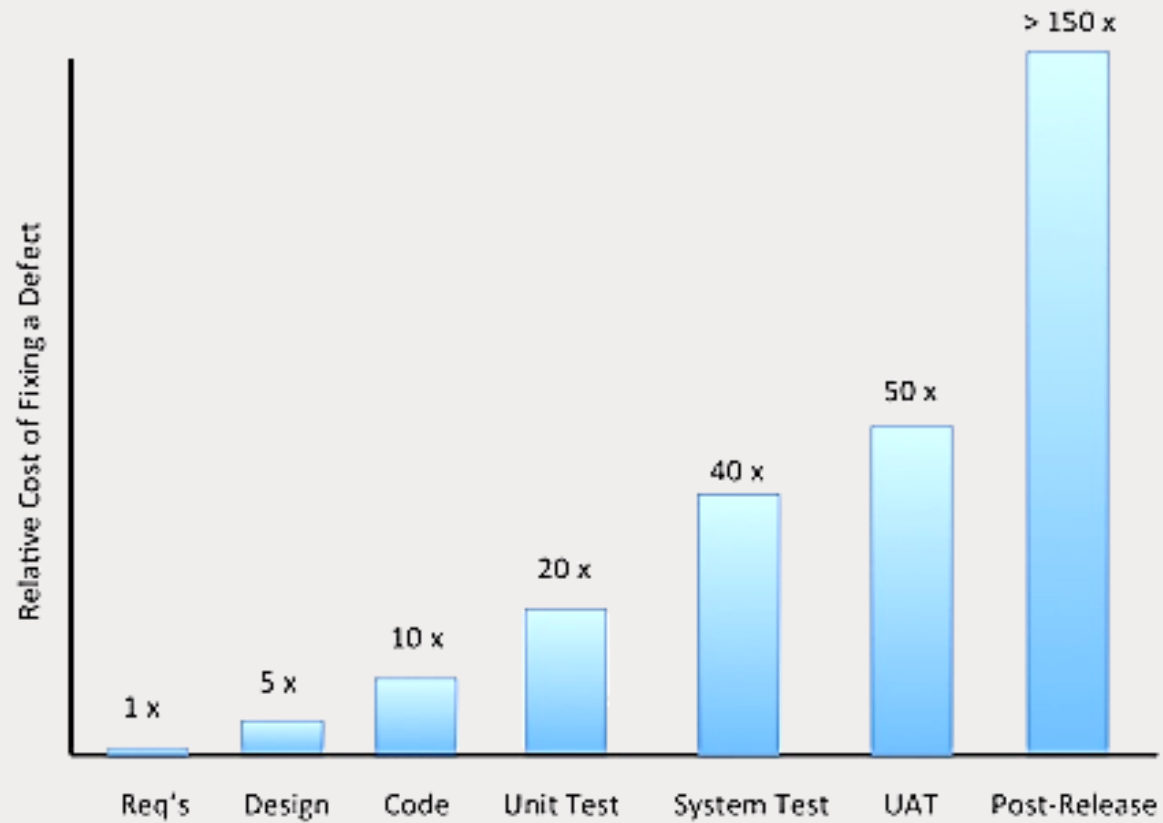
The Dragons of Eden



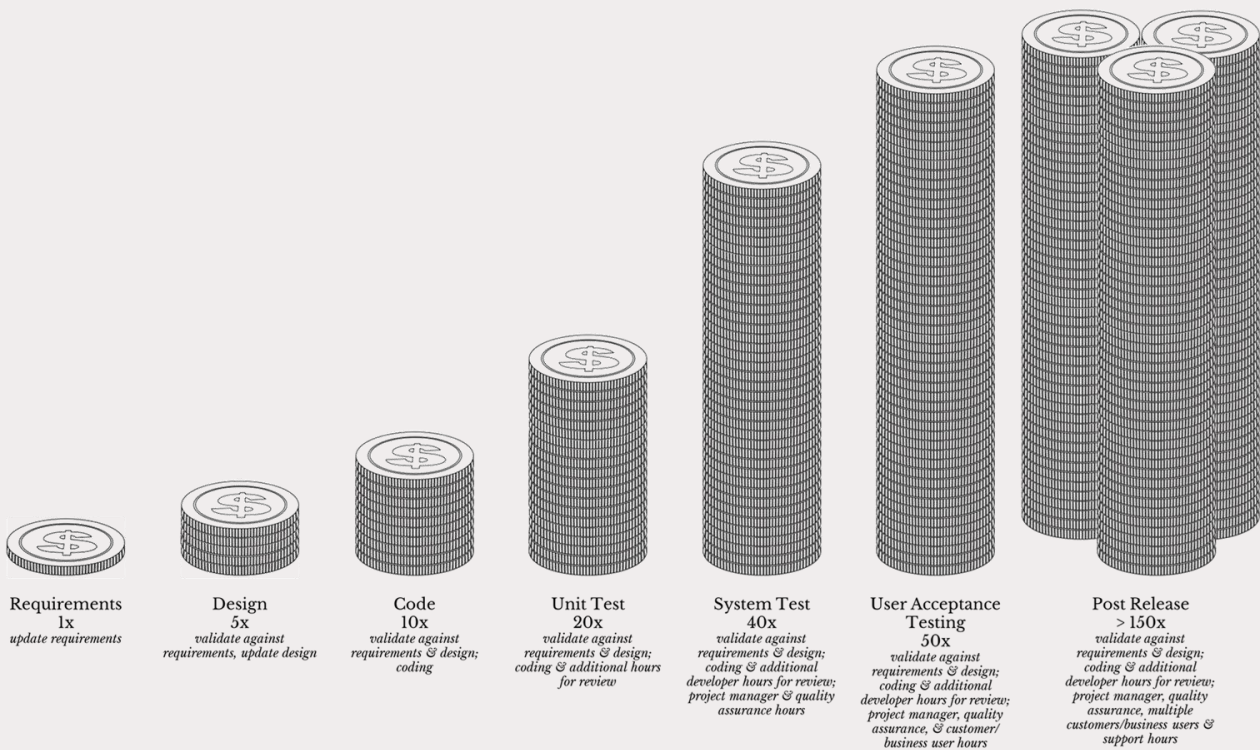
The Dragons of Eden



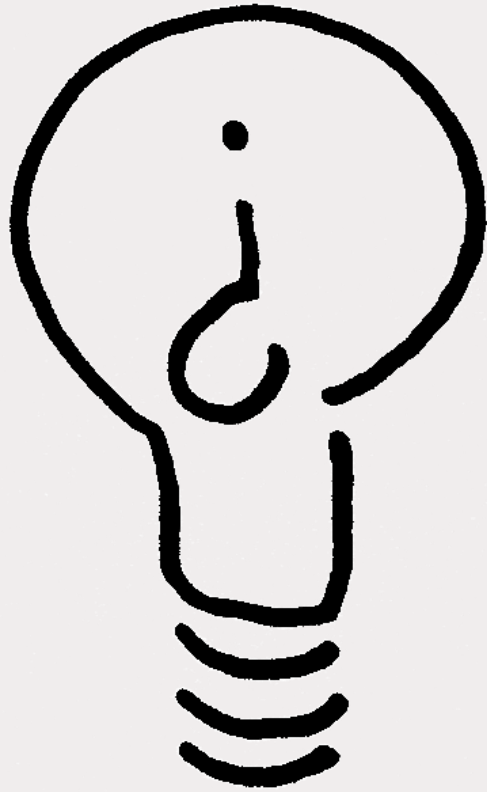
Relative cost of fixing a defect



Relative cost of fixing a defect



The creative process (and tools!)



ADAPT your data

- **A**nalyze the data
- **D**efine the story
- **A**ppropriate visuals
- **P**repare a draft
- **T**est the results

Situation

- Sprint 13 (4 week sprint) had delays in completion of user stories and development (5 business days, each)
- QA has now forecasted a testing completion date 1 business day after planned go-live (4 business days later than planned)
- Today is the go/no-go meeting
 - Top of the agenda: why isn't QA done?

Analyze the data

- User stories delayed by 5 business days
- Code completion delayed by 5 business days
- Open high defects, 2; total defects open, 14
- 436 functional test cases: 418 passed, 3 failed, 15 cannot be executed until open defects are resolved
- Finding more defects daily – rate of identification is starting to slow
- Regression testing requires 2 business days

Define the story

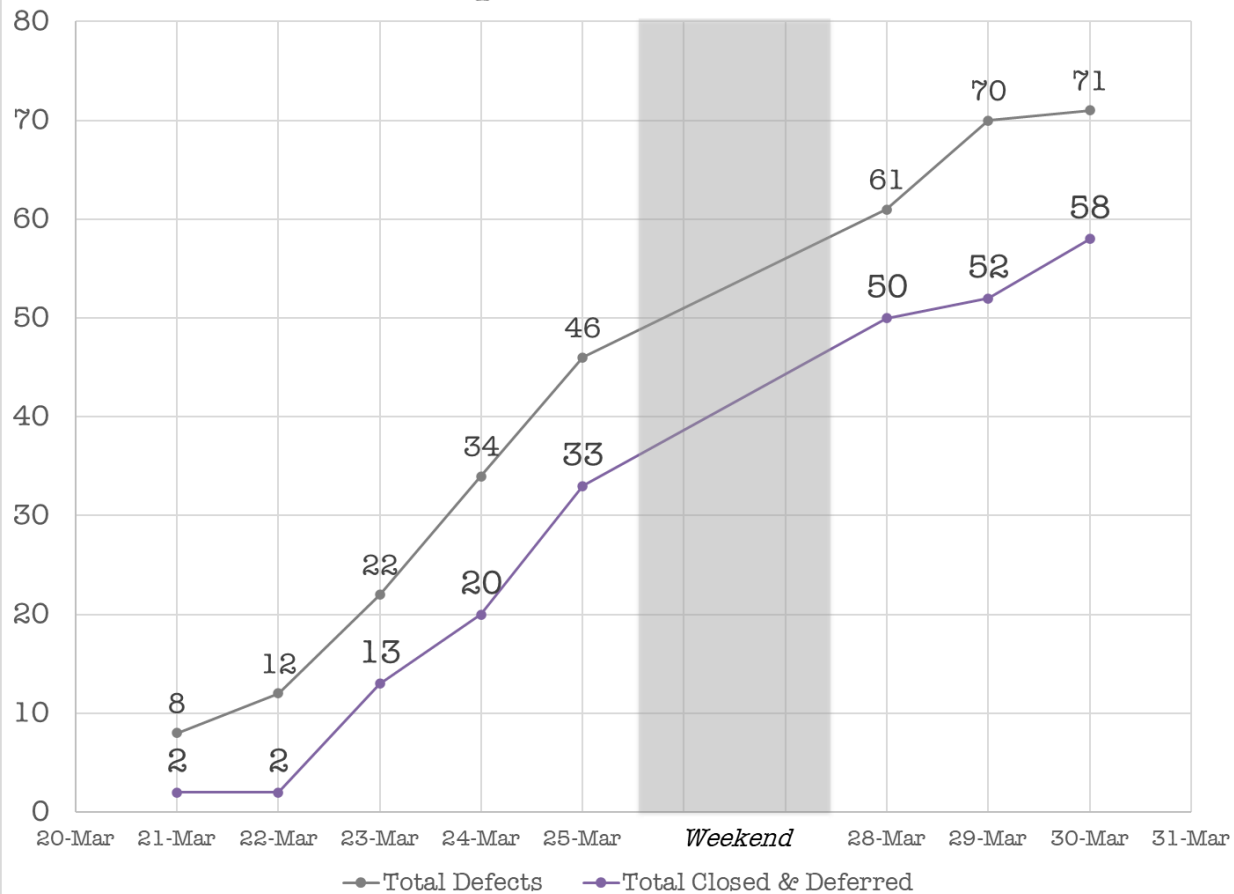
- Delays in earlier deliverables impacted testing timeline
- Current unresolved defects impacting testing timeline
- Believe majority of issues have been identified
- Cannot start regression testing until open high issues are resolved
- If current code is released to production, known issues will cause production failures and there is a risk of unknown issues causing additional problems

Appropriate visuals

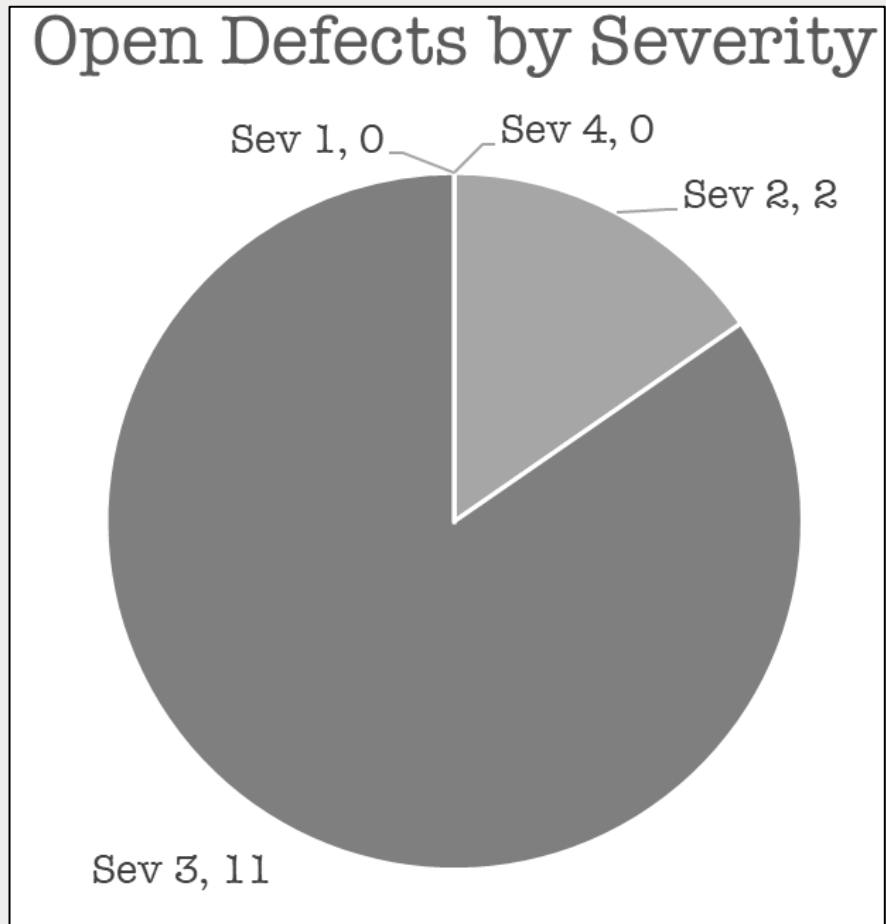
- Questions to ask:
 - What will represent the information effectively at a glance?
 - Excel can help (guess and check)
 - Draw it out on a white board or piece of paper
 - Can I also represent this with text?
 - Is there more information needed to complete the story?

Prepare a draft

Sprint 13 Defects

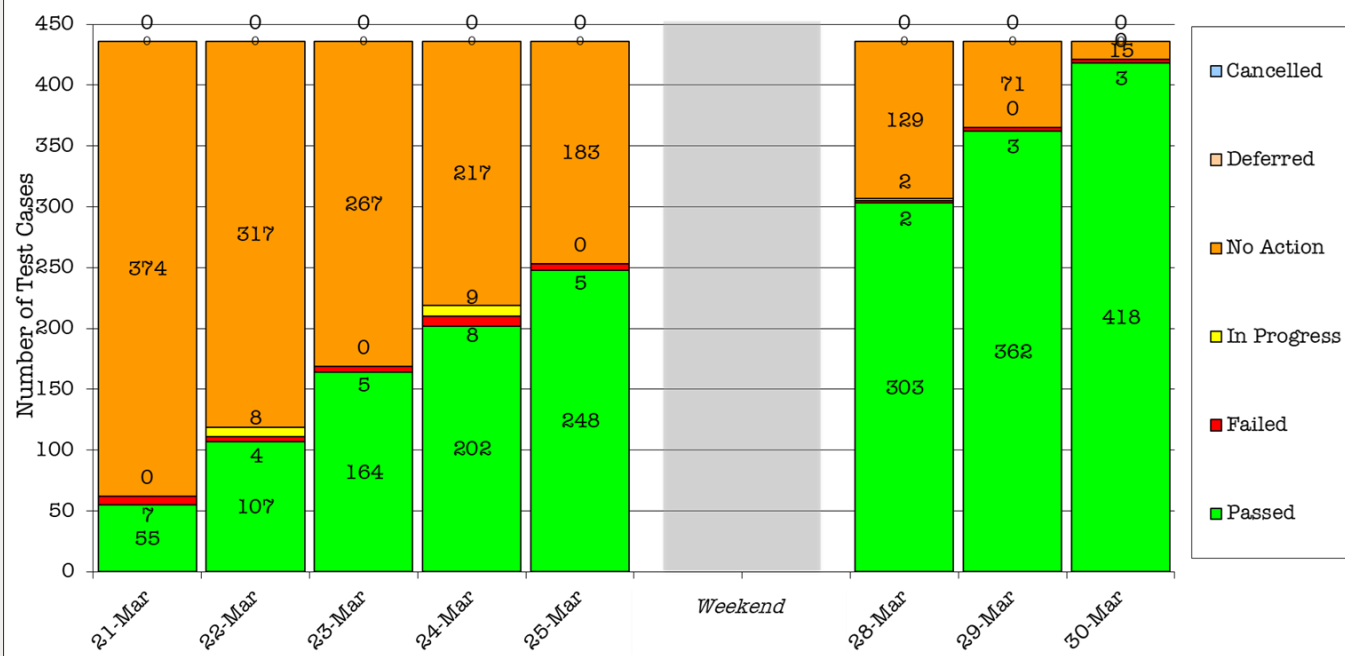


Prepare a draft



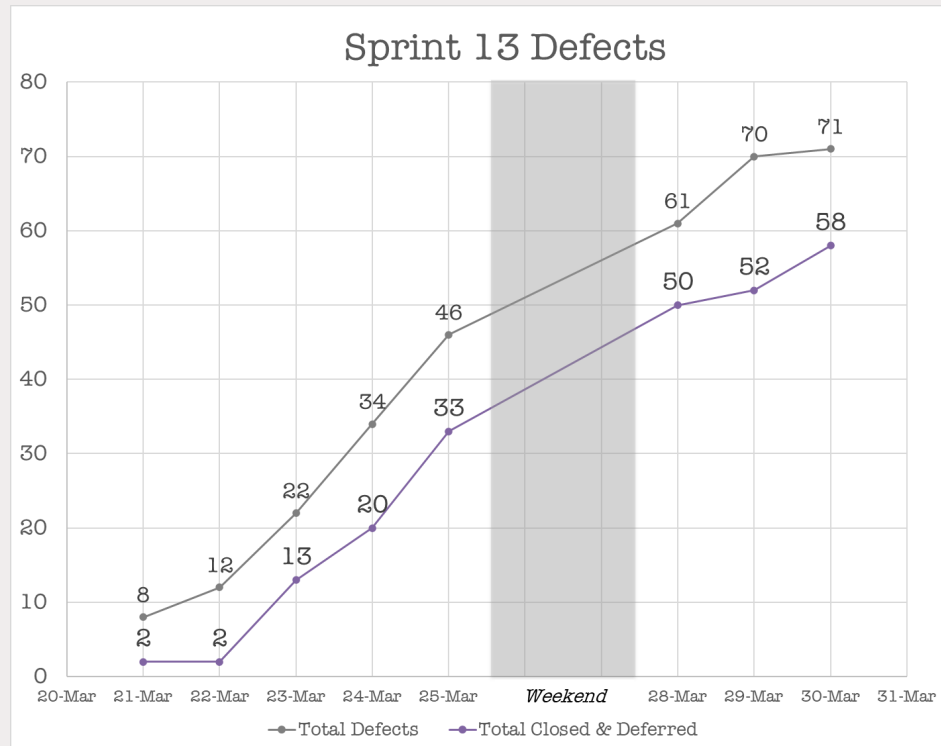
Prepare a draft

Functional Test Execution Summary



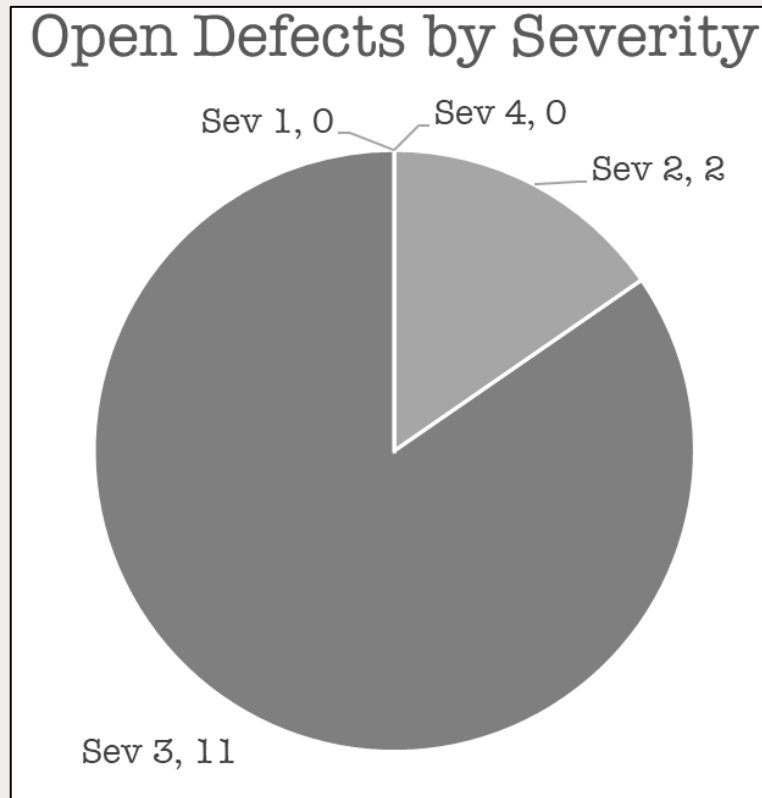
Test the results

- The defect curve is leveling out and the gap between opened and closed defects is narrowing



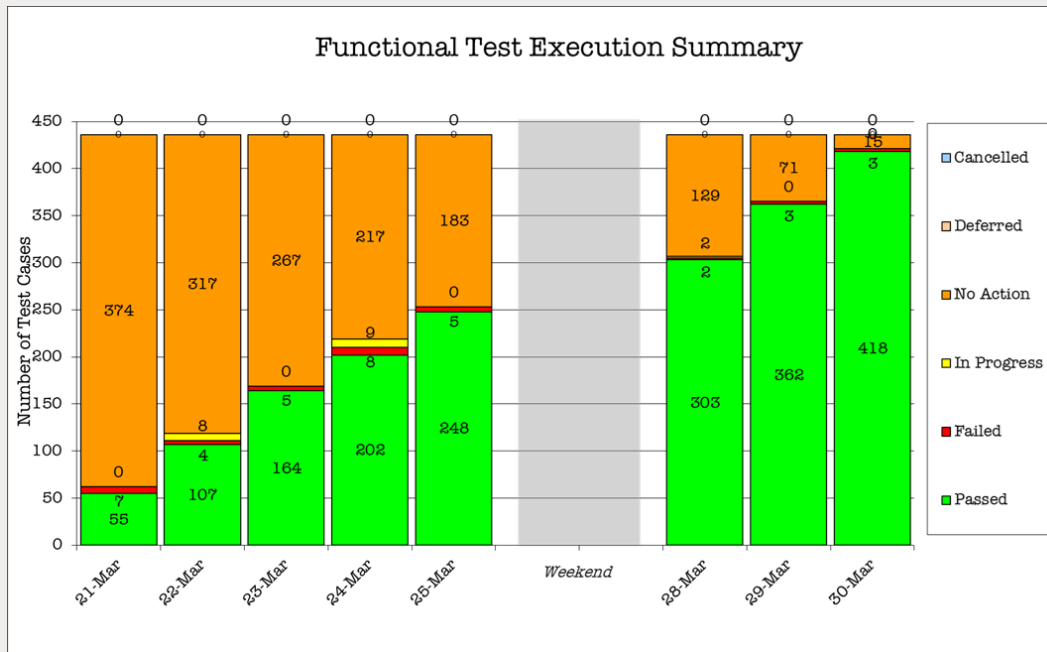
Test the results

- Two remaining high defects need to be resolved



Test the results

- Once high defects are resolved, remaining functional test cases can be executed within a day



Test the results

- What else might we want to include?
 - What about the delays?
 - What about regression test timing?
 - How about potential impact to production from the open high defects?
- What might we want to change?
 - Stacked bar chart made it hard to see the values for each test status.
 - Are the colors accessible?

Selected Tools

- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Word
- Pen, paper, & scanner/digital camera
- Any drawing program
- <https://www.color-blindness.com/coblis-color-blindness-simulator/>
 - Colorblindness checking tool
- Your imagination!!!!

What else would you like to know?



Sources

- Slide 5: "The human brain can process entire images that the eye sees for as little as 13 milliseconds - 10x faster than the blink of an eye."
 - <https://news.mit.edu/2014/in-the-blink-of-an-eye-0116>
- Slide 6: According to a 2013 study, the average person's attention span is about 5 seconds. A goldfish has an attention span of about 9 seconds.
 - <http://www.telegraph.co.uk/science/2016/03/12/humans-have-shorter-attention-span-than-goldfish-thanks-to-smart/>
- Slide 7: Medina, John. Brain Rules, 2nd Ed. 2014
 - "vision is by far our most dominant sense, taking up half of the brain's resources."
- Slide 8: Barakat, Christie. "The Science of Storytelling", Social Times. Jun 6, 2014.
- Slide 9 image source:
https://upload.wikimedia.org/wikipedia/commons/thumb/e/ec/Anscombe's_quartet_3.svg/1280px-Anscombe's_quartet_3.svg.png
- Slide 10 image source:
https://kidwriteblog.files.wordpress.com/2014/07/cave-art_1.jpg
- Slide 12 image source: <https://myplate-prod.azureedge.us/sites/default/files/2020-12/ABriefHistoryOfUSDAFoodGuides.pdf>
- Slide 14 image source: Sagan, Carl. The Dragons of Eden: Speculations on the Evolution of Human Intelligence. 1986.
- Slide 15 image source: Tufte, Edward. Beautiful Evidence. 2006.
- Slide 16 image source, slide 17 data source: ISTQB Certification News, 2015, #1
- Slide 31, color blindness statistic from
<https://www.colourblindawareness.org/colour-blindness/>