ROOKOUT

Debugging debugging

Why we must approach debugging differently

Dr. Elinor Swery
@elinorswery
@rookoutlabs

Who Am I

- Director of Solutions Architecture at Rookout
- Obsessed with the intersection of people and technology
- Enjoy working with many different companies

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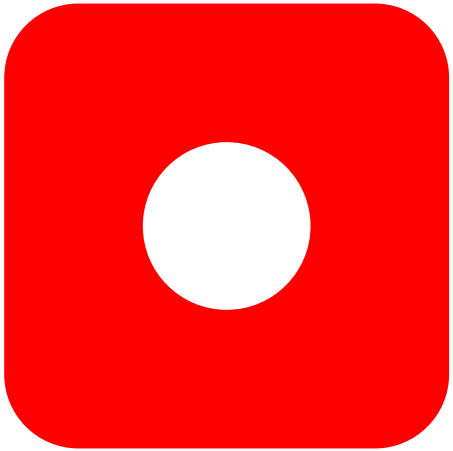
Developers do a lot

“75% of developers’ time is spent on solving bugs”

Coralogix

What would your team rather work on?



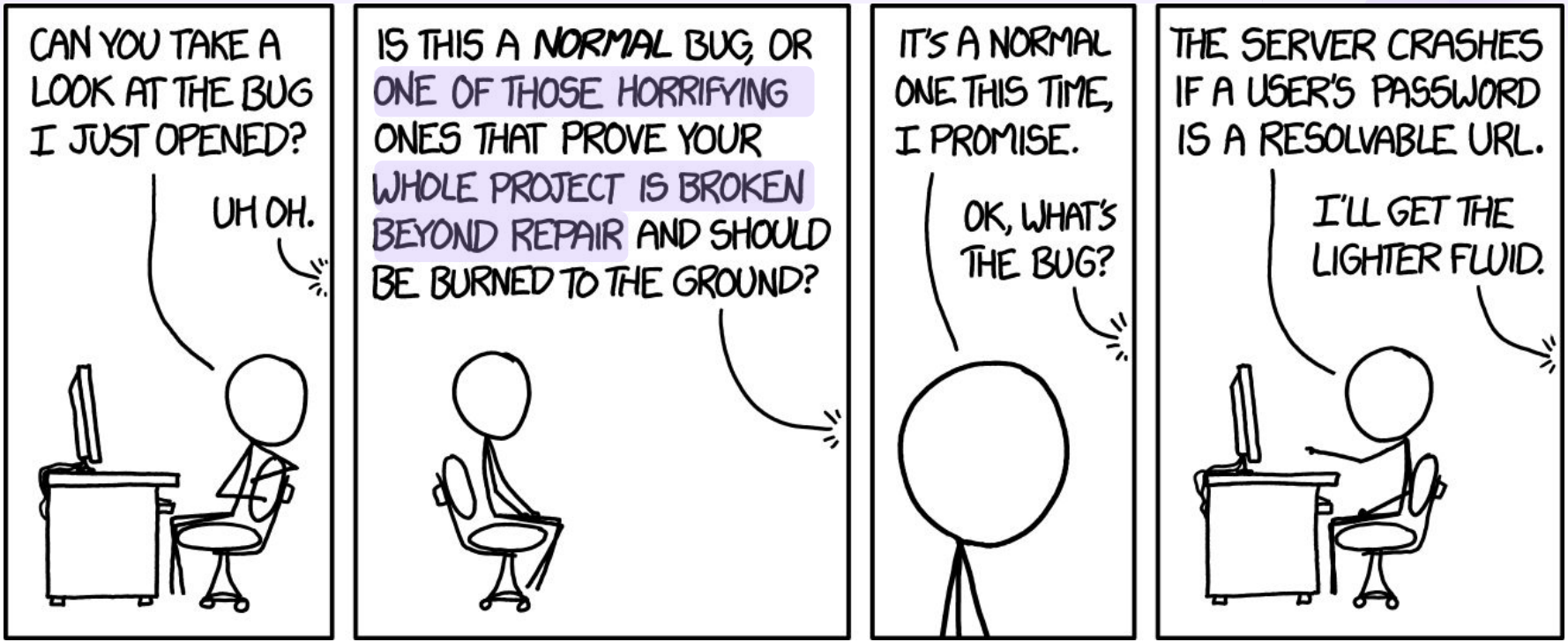
OR

Bug

Feature

Problem #1

Fixing old things is simply not as fun as creating something new


CAN YOU TAKE A LOOK AT THE BUG I JUST OPENED?
UH OH.
IS THIS A NORMAL BUG, OR ONE OF THOSE HORRIFYING ONES THAT PROVE YOUR WHOLE PROJECT IS BROKEN BEYOND REPAIR AND SHOULD BE BURNED TO THE GROUND?
IT'S A NORMAL ONE THIS TIME, I PROMISE.
OK, WHAT'S THE BUG?
THE SERVER CRASHES IF A USER'S PASSWORD IS A RESOLVABLE URL.
I'LL GET THE LIGHTER FLUID.

Problem #2

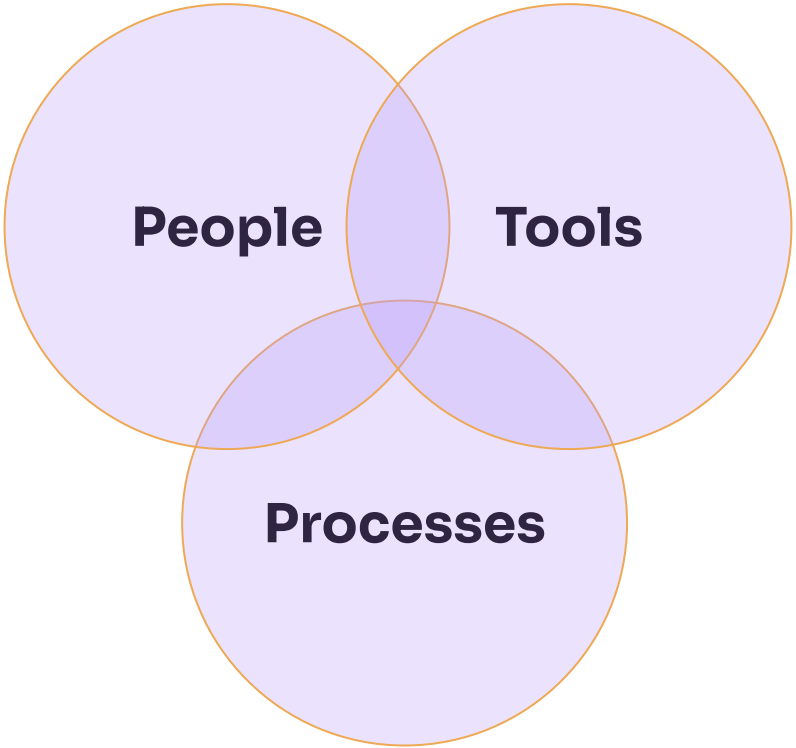
Too much pressure causes stress and anxiety

- Run the program with the debugger turned on. Set a breakpoint at the top of the function.
- Confirm that the input to the function is what you think it should be. If it's supposed to be "Banana," make sure that that is indeed what you're working with. If not, you've found your error. The question then is "why is it that my function isn't getting the input I thought it was going to get?," and you can work backwards to see how that happened.
- Step over the sort function. What output do you get from sort(input)? What output did you expect to get from sort(input)? If these disagree, you've found what's going on - the real culprit is that sort(input) is broken. Now you can start looking at sort to see what's wrong.
- Step over the countRunsIn function. What output do you get from it? What output did you expect to get from it? If they disagree, you've found the error - you're not properly counting runs, and that means you should look at countRunsIn.
- Look at the overall return value. If you correctly sorted the input and correctly counted runs and yet you *still* aren't getting the right answer, that means that the error is possibly a logic error. Maybe sorting the characters and counting runs just isn't a good way to solve this problem.

Problem #3

The tools we give our teams are simply not right for the job at hand

As managers, we should focus on:

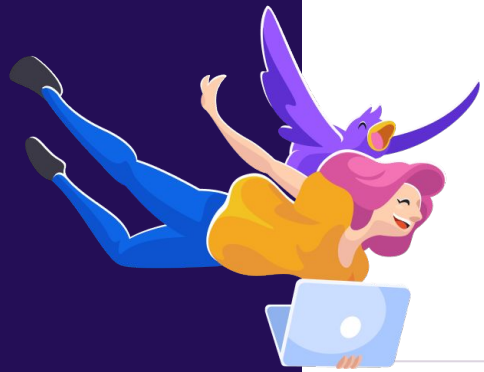


People

-> Better market the debugging task

-> Create a team based ownership mentality

-> Establish trust with the various stakeholders



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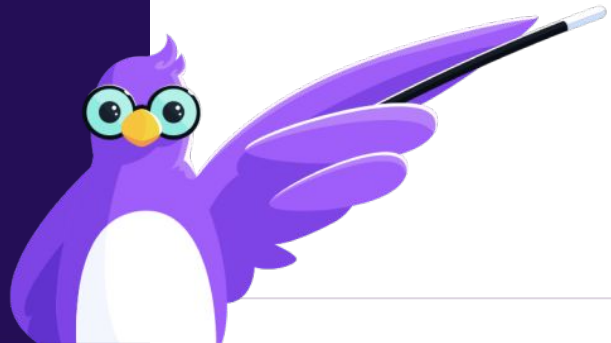
Processes

-> Adjust sprint commitment / backlog if bugs come in

-> Establish a prioritisation method for new bugs

-> Have the groundwork already done for the developers



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Tools

-> Create a cloud native toolbox

-> Ensure these are integrated in your team's daily workflow

-> Data is gold, but too much will weigh you down

Thank You!

Let's continue the conversation!

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