

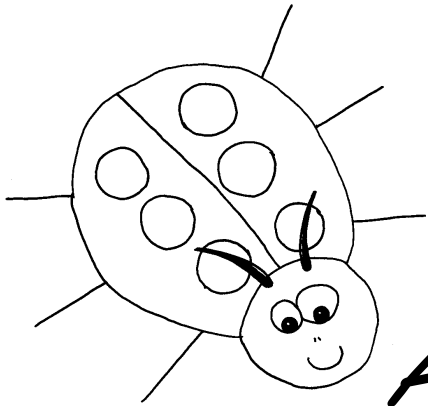
Friday, May 19, 2006 11:15AM

ALL I NEED TO KNOW ABOUT
TESTING I LEARNED FROM DR.
SEUSS

Robert Sabourin
AmiBug.com Inc

Robert Sabourin

Robert Sabourin has more than twenty years of management experience, leading teams of software development professionals. A well-respected member of the software engineering community, Robert has managed, trained, mentored, and coached hundreds of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of *I am a Bug!*, the popular software testing children's book, Robert is an adjunct professor of Software Engineering at McGill University.



*All I Need to Know about
Testing I Learned from
Dr. Seuss*



March 31, 2006

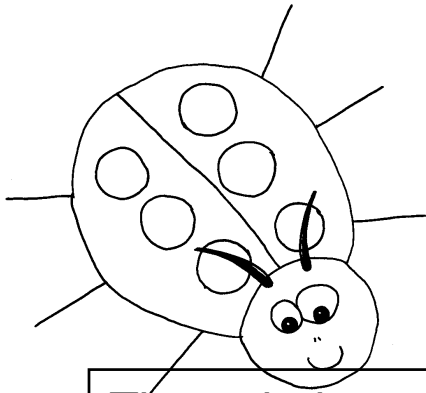
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Slide 1

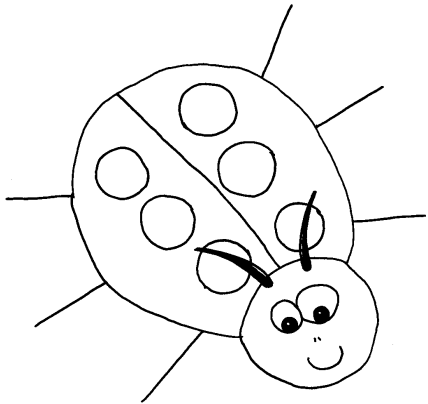
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From Dr. Seuss.

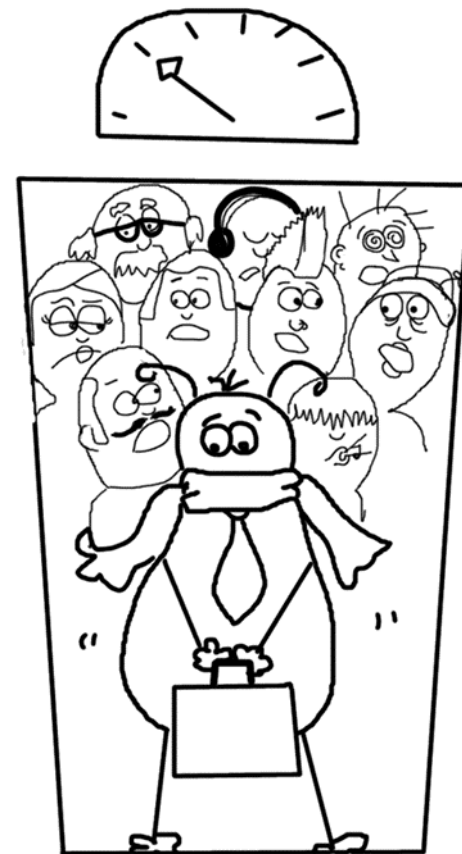
Through the stories and parables of Theodor Geisel, we can learn simple, yet remarkably powerful approaches for solving testing problems. In a tour of common issues we encounter in testing—test planning, staff training, communications, test case design, test execution, status reporting, and more, Robert Sabourin explains how you can apply lessons from the great books of Dr. Seuss to testing. *Green Eggs and Ham* teaches us combinations; *Go, Dog, Go* teaches us the value of persistence; *Because a Little Bug Went Kachoo* teaches us about side effects, chaos, and risk management. Others such as *Hop on Pop*, *Marvin K Mooney*, *I Can Read with My Eyes Shut*, and *Inside Outside UpSide Down* all have important lessons about how to get things done on software projects. Learn some simple truths and take away some heuristic testing aids to become a more productive and effective tester.

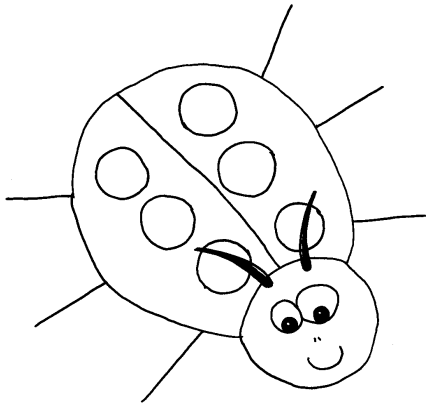
- Important heuristics to better test planning
- Different testing approaches that can be used for the same problem
- A back to basics way to improve performance



From Dr. Seuss.

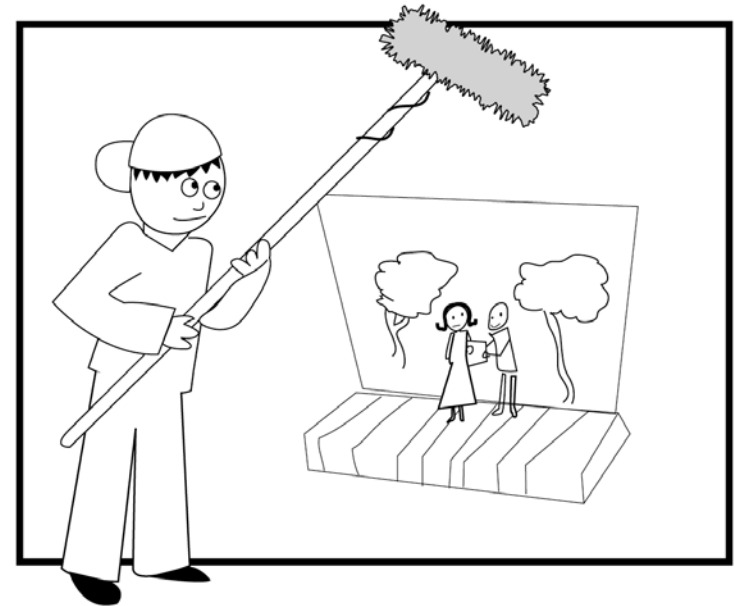
- Overview
 - Learning and Metaphors
 - A Little Bug Sneezes
 - On the way to town
 - Go Dogs Go
 - Green Eggs and Ham
 - Cat in the Hat
 - Mulberry Street
 - Hop on Pop

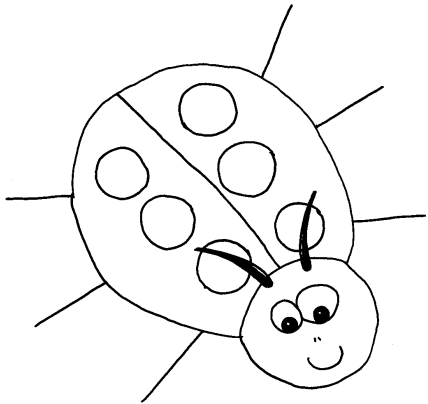




Learning and Metaphors

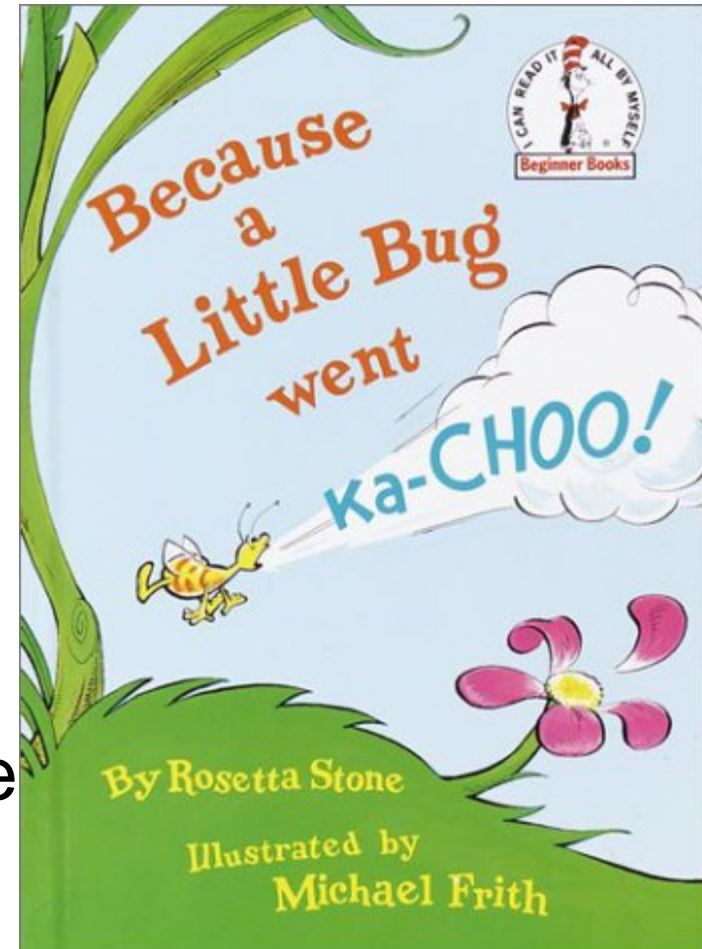
- Teaching
- Learning
- Retaining
- Applying knowledge
- Share experiences
- Don't get carried away ...

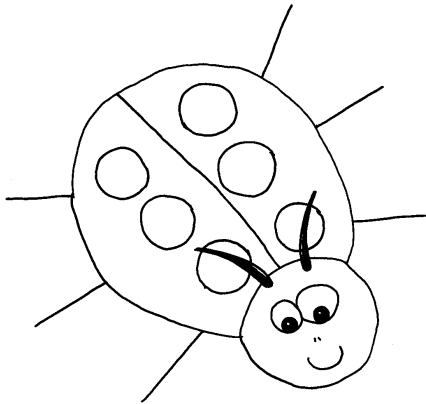




The Little Bug

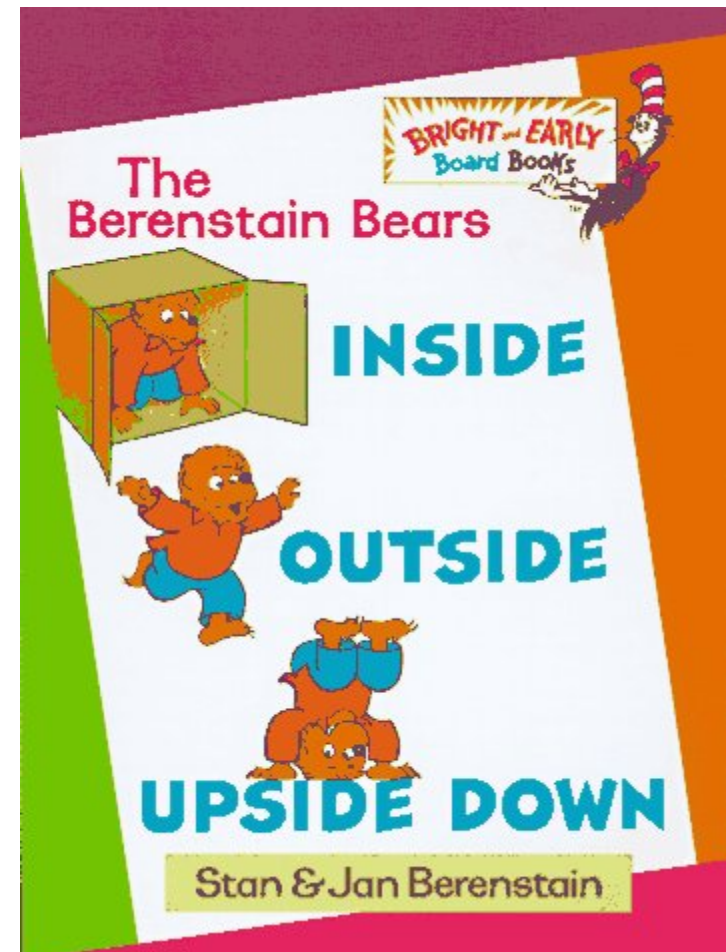
- Seems innocent
- Side effects
- Chain of events
- Chaos
- Respect all bugs
 - Benefit & Consequence
 - Leave or Fix

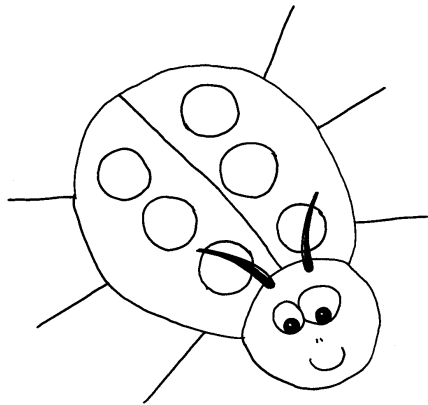




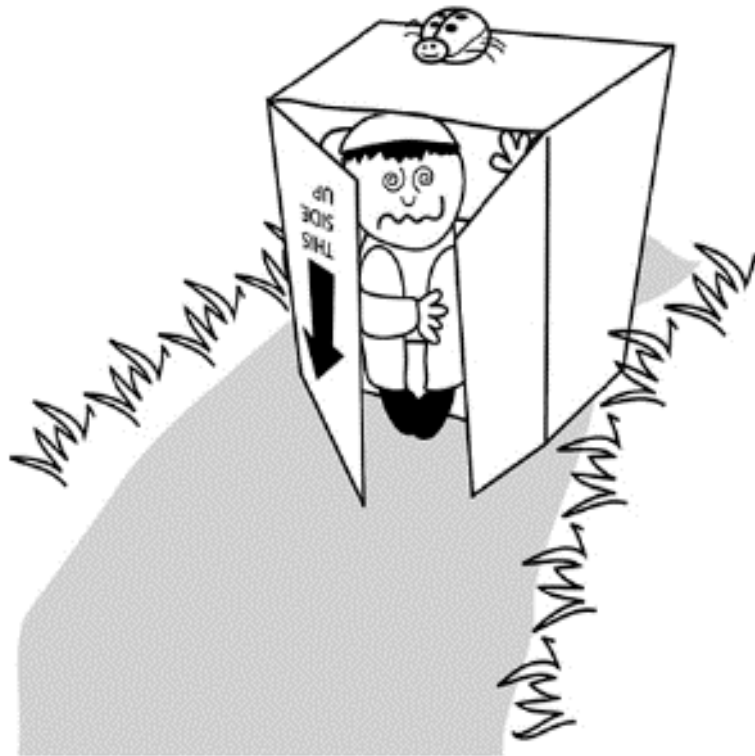
Inside Outside Upside Down

- Trip to town
- Heuristic
- Testing by design
 - White Box (Inside)
 - Black Box (Outside)
 - Stress (Upside Down)
- In Combination

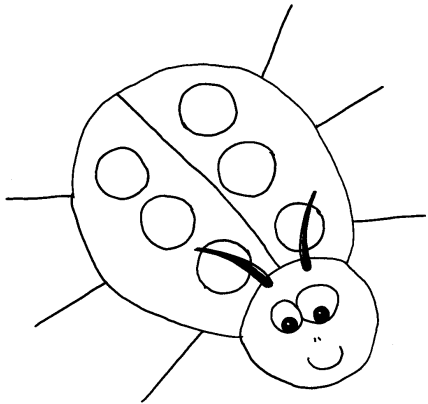




Inside Outside Upside Down

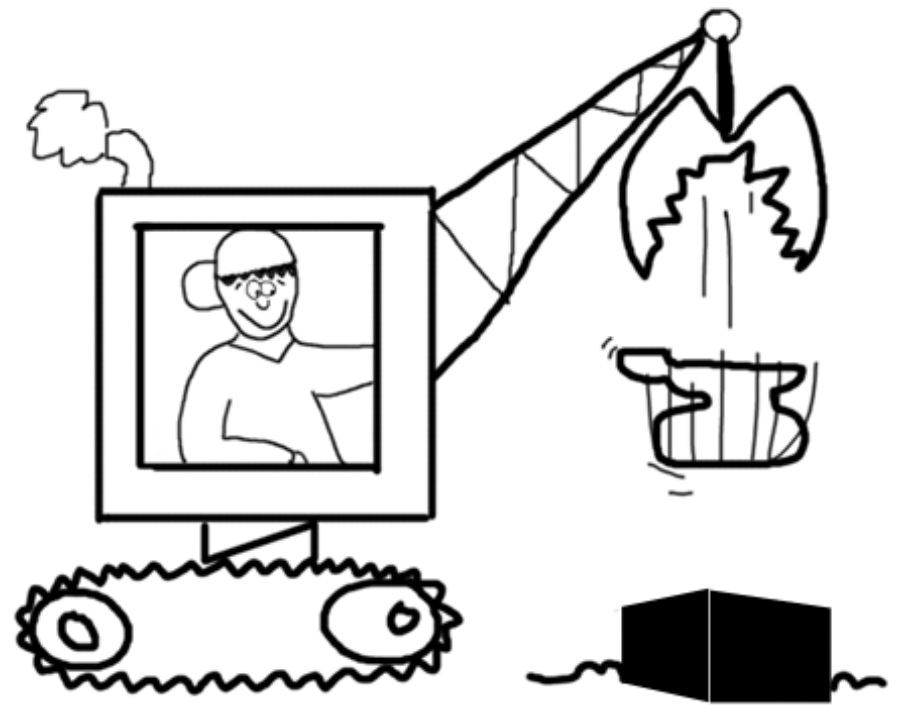


How to test?
Quality factors?



Black Box Testing

- Tester views the program as a black box
- Test is not concerned about the internal behavior and structure of the program
- Test is designed to observe and confirm outcome of program in response to input and system state



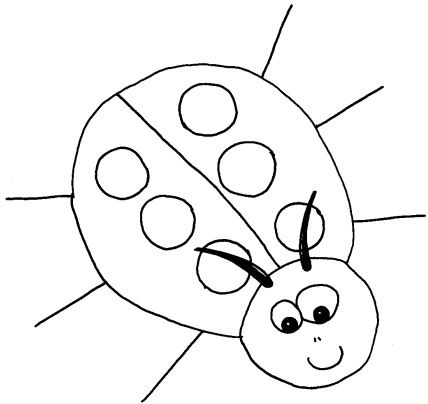
How?

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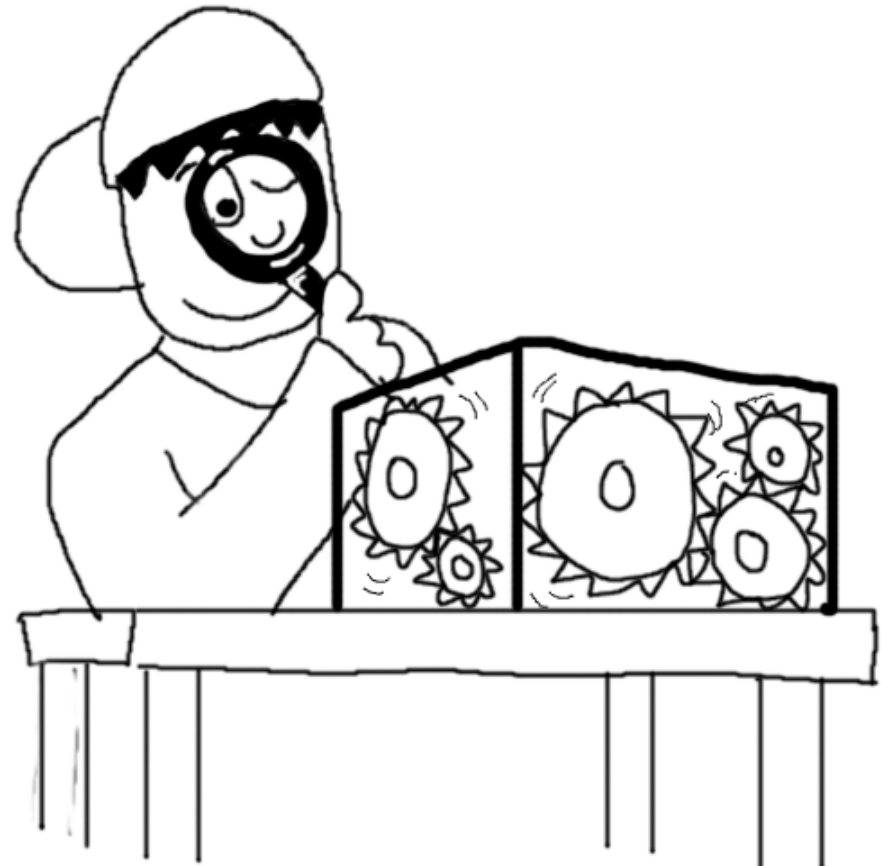
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White Box Testing

- Tester reviews the programs behavior, internal structure and data flow
- Test design is based on examination of code
- Used by developers as code is written
- Assumes code required
- Does not confirm requirements are met



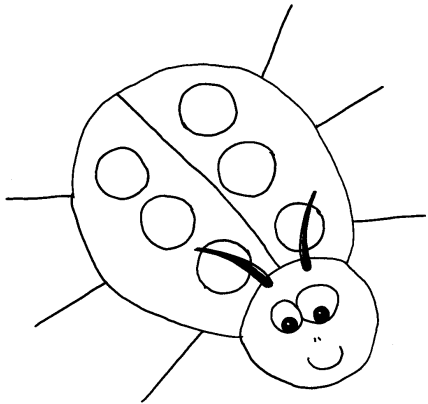
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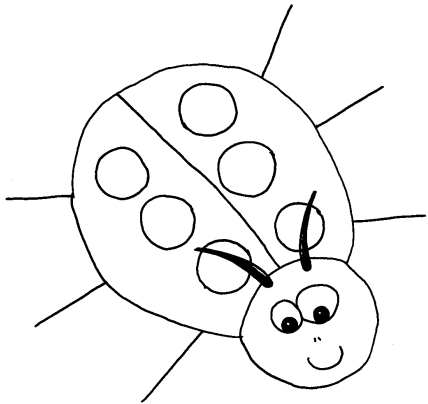
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Stress Testing

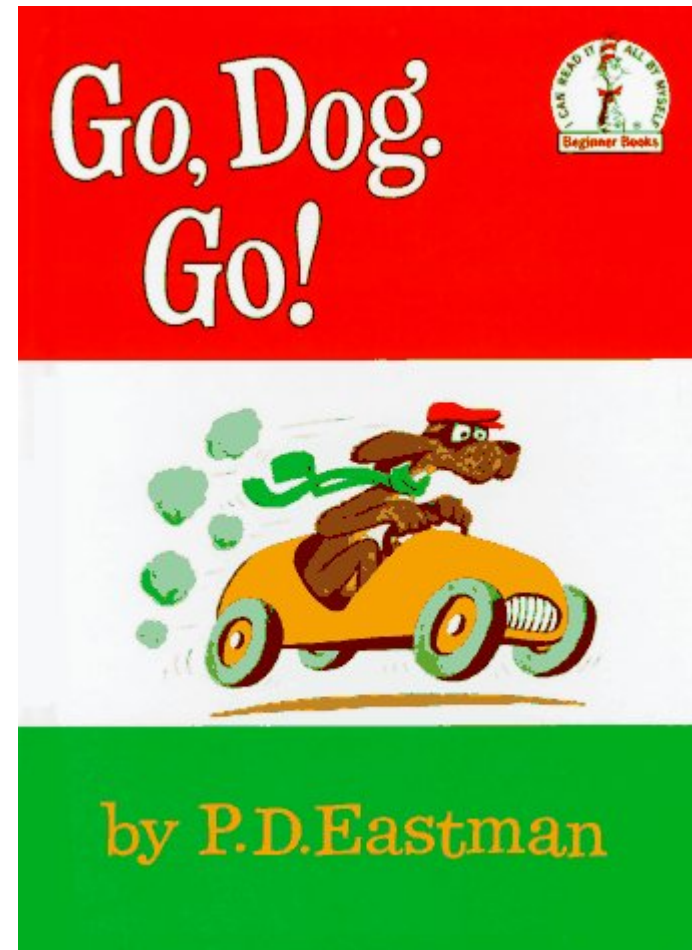
- Testing operational characteristics of application within a harshly constrained environment
 - Limit processor speed
 - Limit memory
 - Limit disk space
 - Diminish access to shared resources

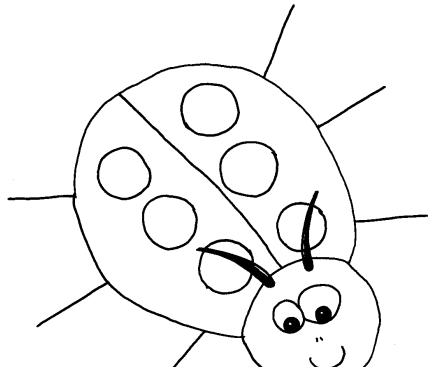




Go Dogs Go

- How Many Dogs?
- Where to?
- Positive Testing
- Negative Testing
- Ask questions
- Change context and ask again!





Go Dogs Go



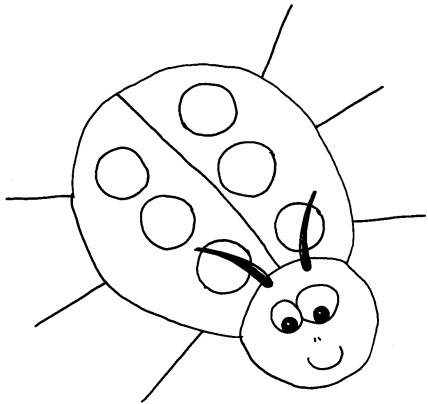
Testing Perspective
Do you like my hat?
Frank timely
feedback

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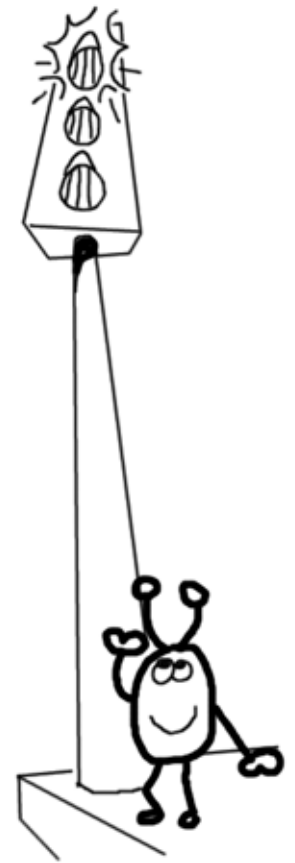
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Positive Testing

- Does the application perform what it is expected to?



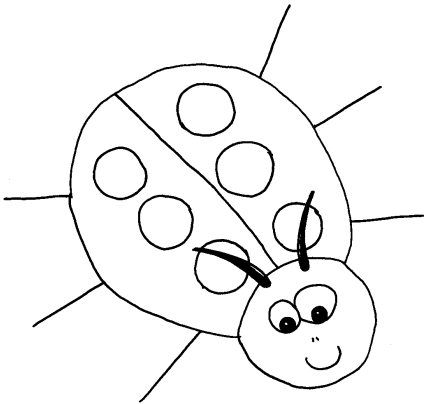
How?

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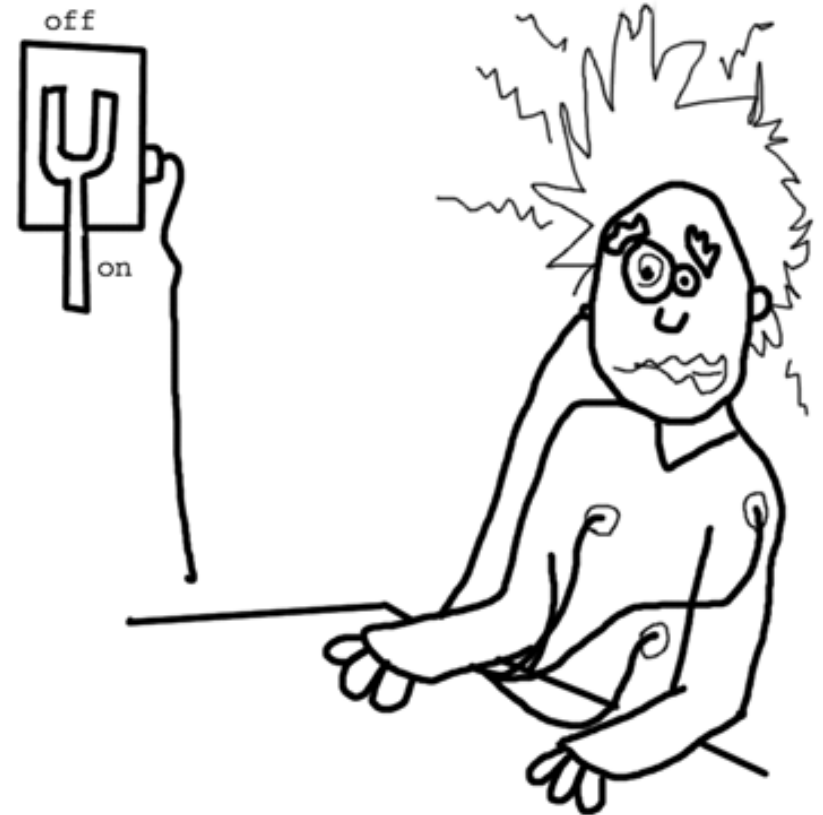
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Negative Testing

- Does the application perform what it is not expected to?



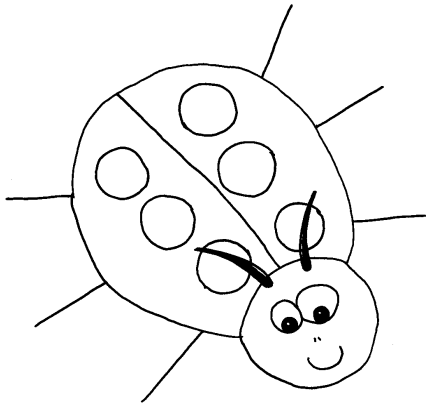
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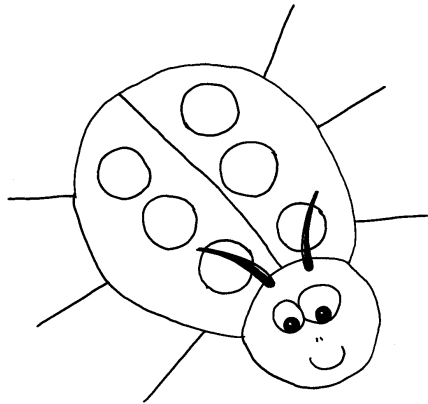
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Confirmation Testing

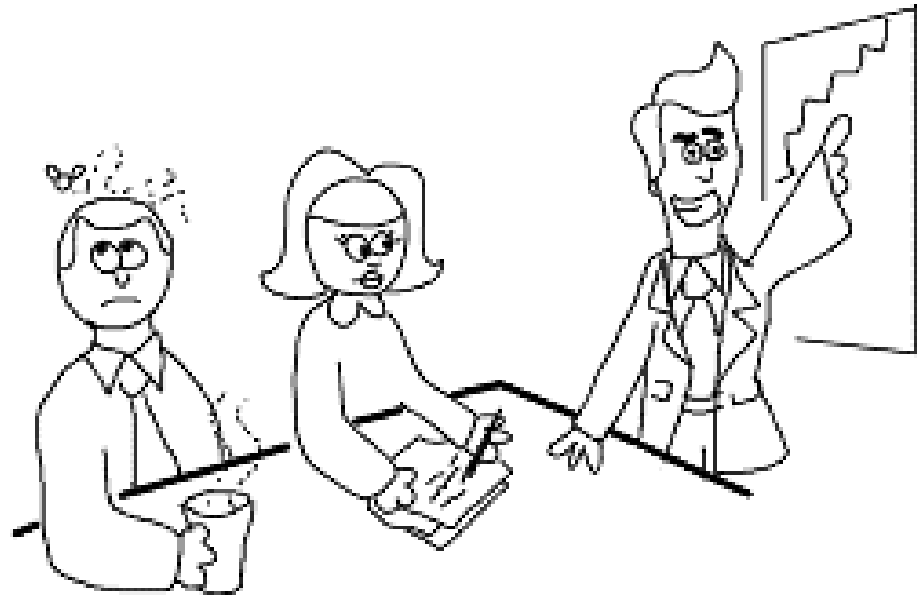
- Confirm that the “*fixed*” bugs are really *fixed*

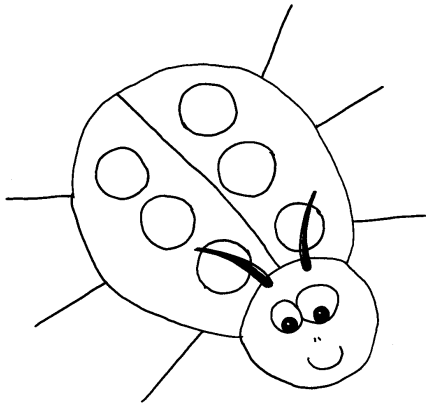




Status

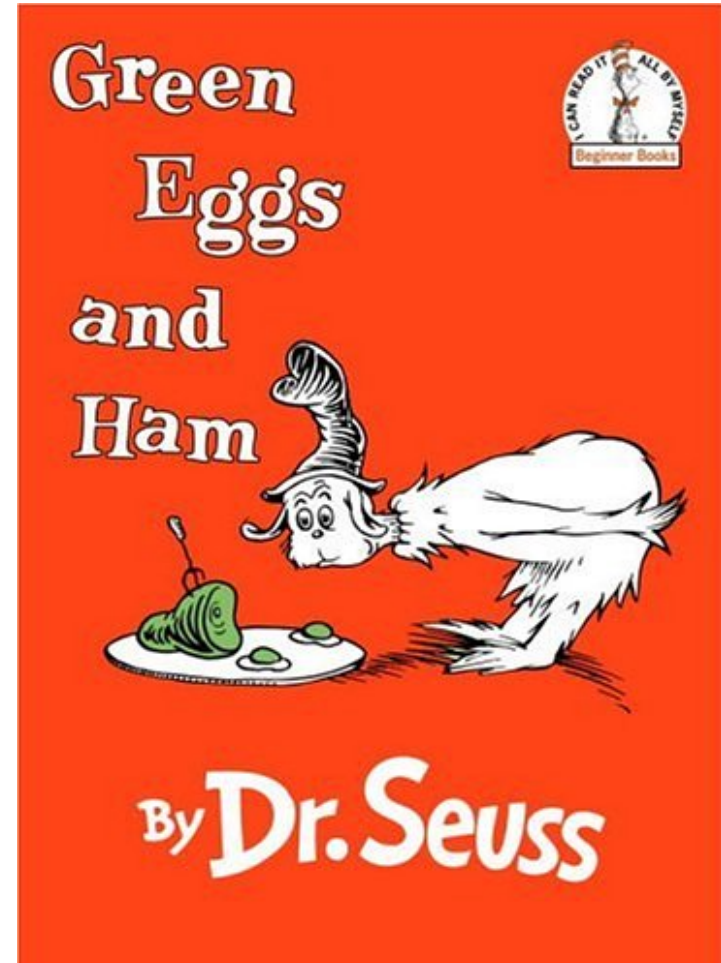
- Communicate
- Add value!
- Clear
- Crisp
- Terse ...
- Advocate!

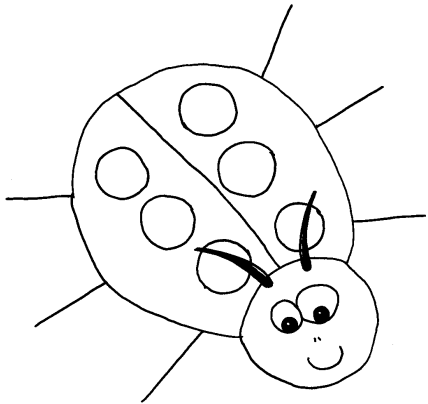




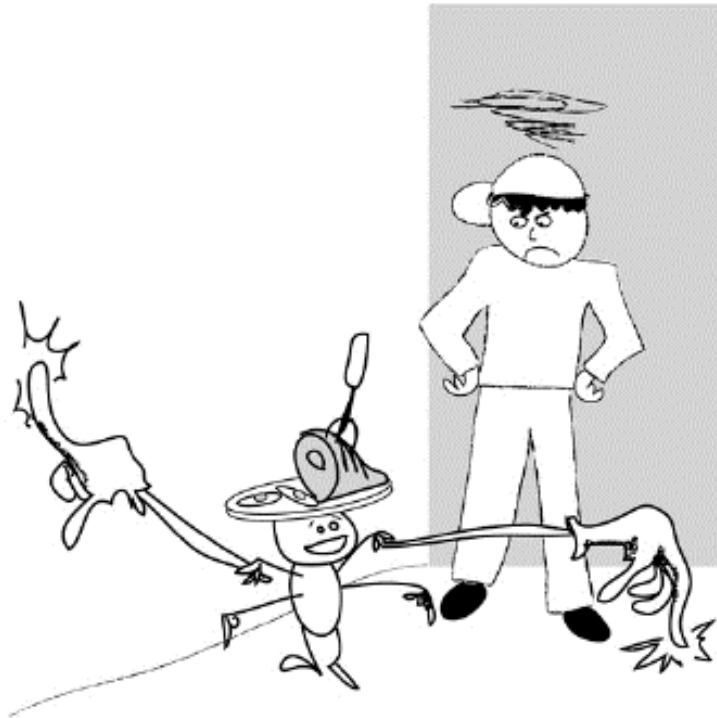
Green Eggs and Ham

- Only Fifty Words
- Platform tests
- Different environments
- Try new things
- Point things out
- Be persistent

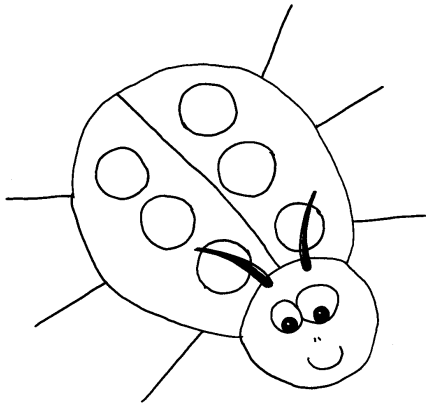




Green Eggs and Ham

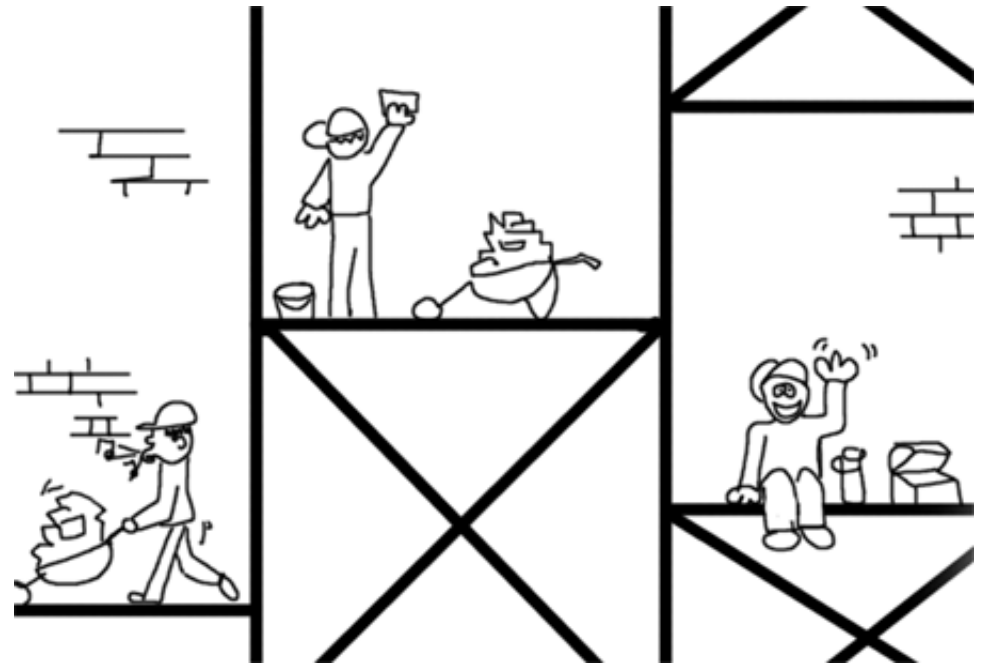


- Over here?
- Over there?
- In a house?
- In a tree?
- Factors?



Platform/Configuration Testing

- Does software operate as required on different hardware and software configurations?



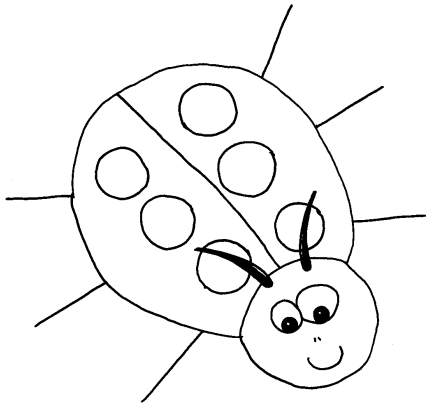
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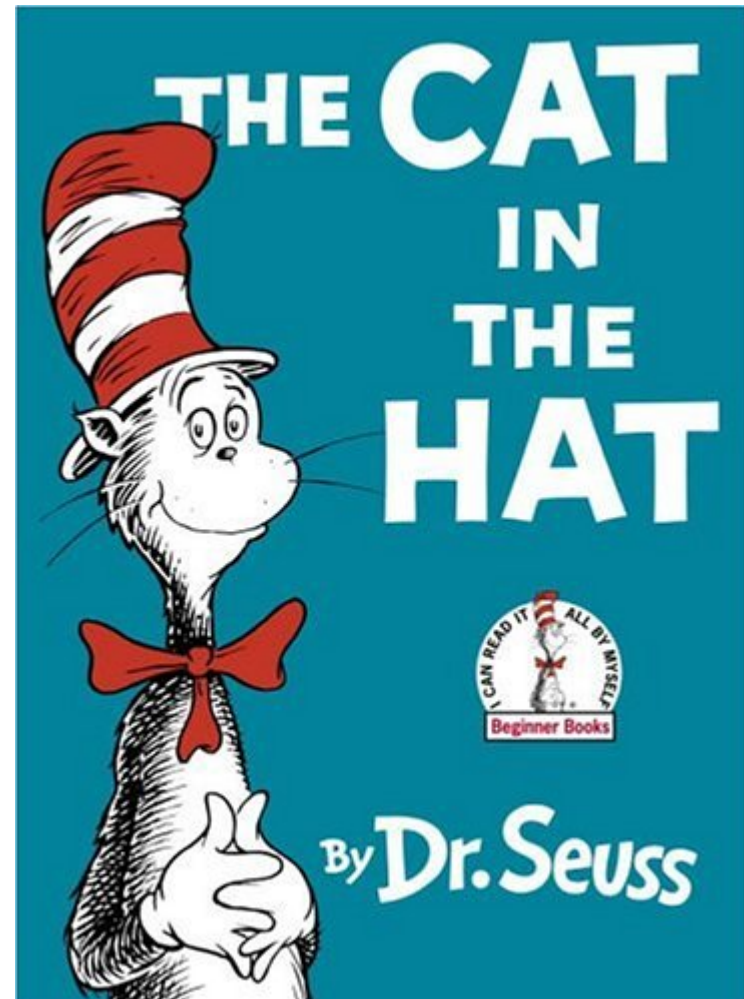
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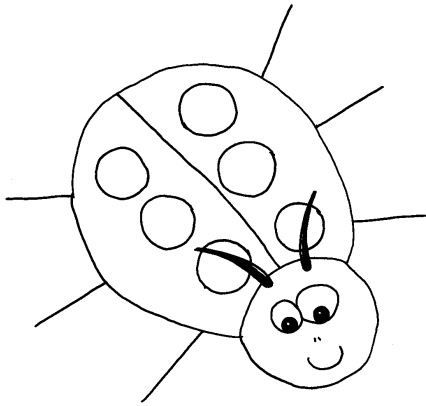
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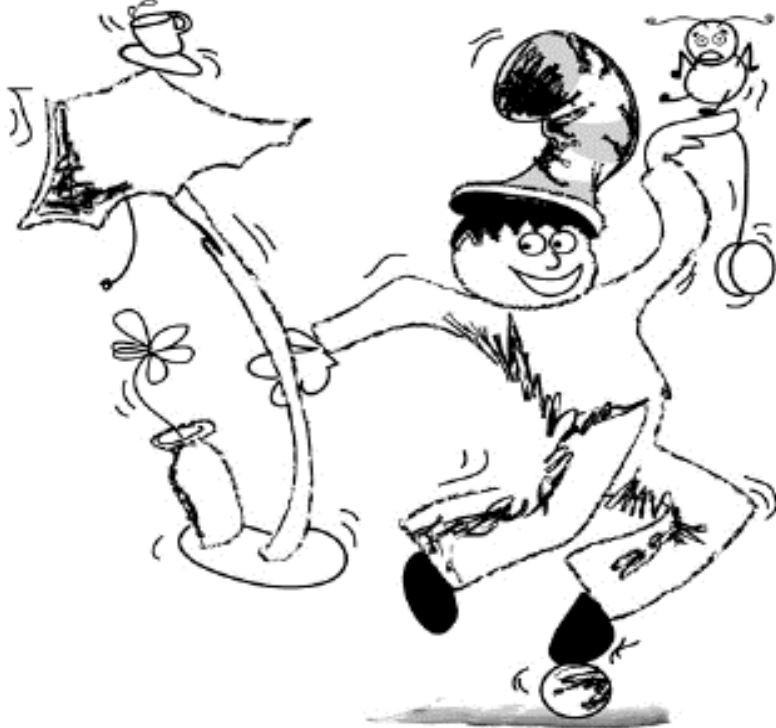
Cat in the Hat

- Zany - Fiasco
- It “can be done!”
- Not normal tests
 - Soap Opera
 - Misuse cases
 - Rainy day
- Clean up “FAST”

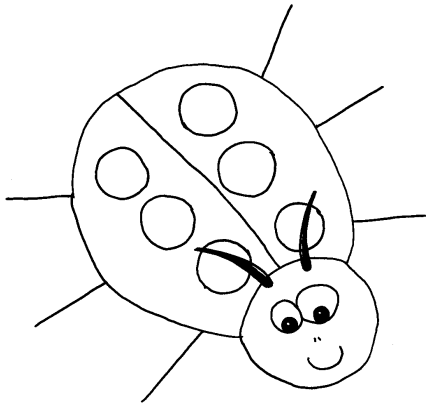




Cat in the Hat



- How crazy can we get?
- Perspective?
- Unexpected sequences of operations?
- Bug hunting!



Soap Opera Testing

- Fictitious events
- Relationships
- Sequencing
- Contrived, but possible



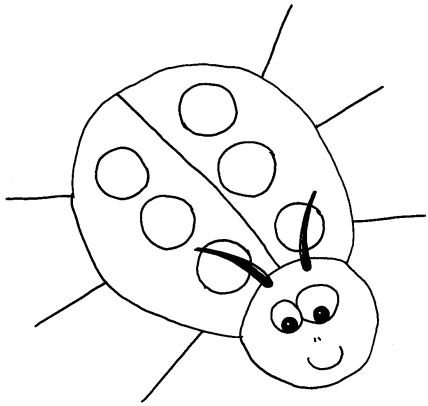
How?

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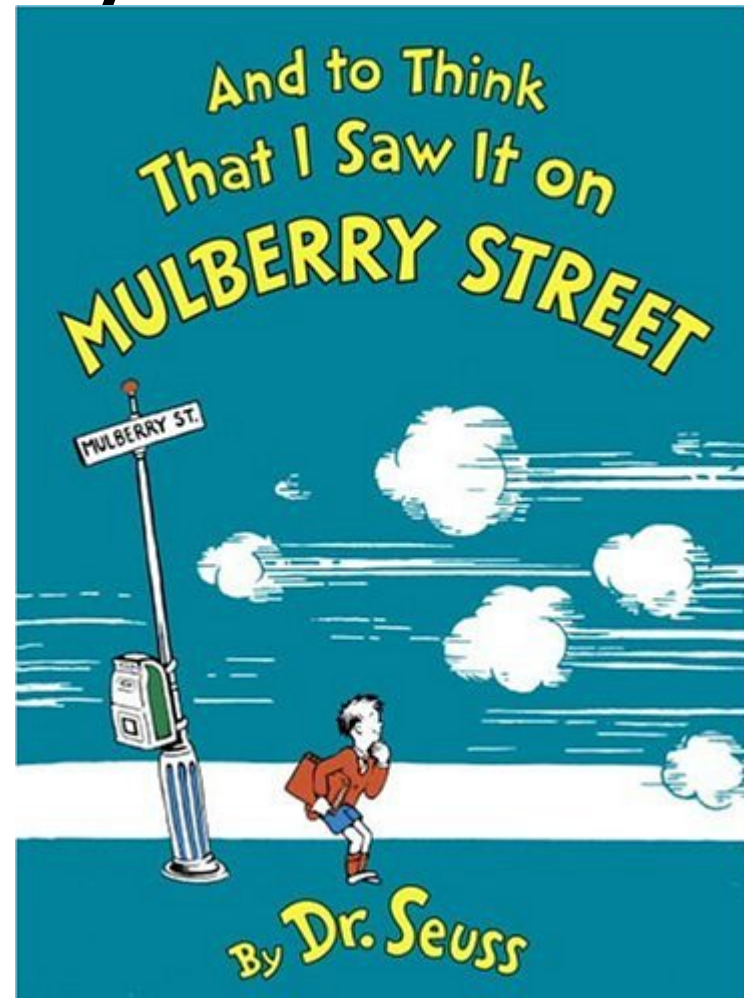
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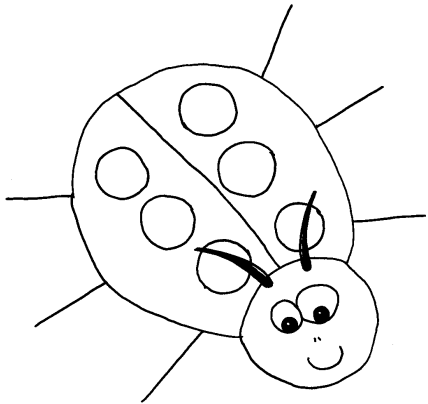
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Mulberry Street

- Original Book
- Self Published
- Imagination
- Vary with each telling
- Progressive elaboration
- Fuzz Testing

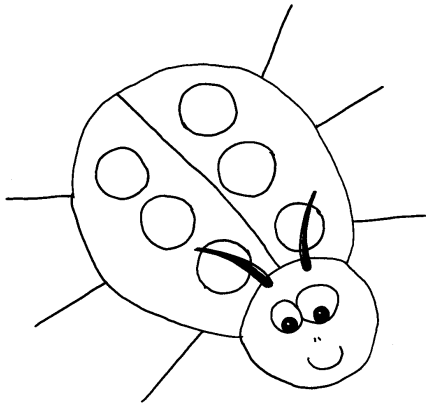




Scenario Testing

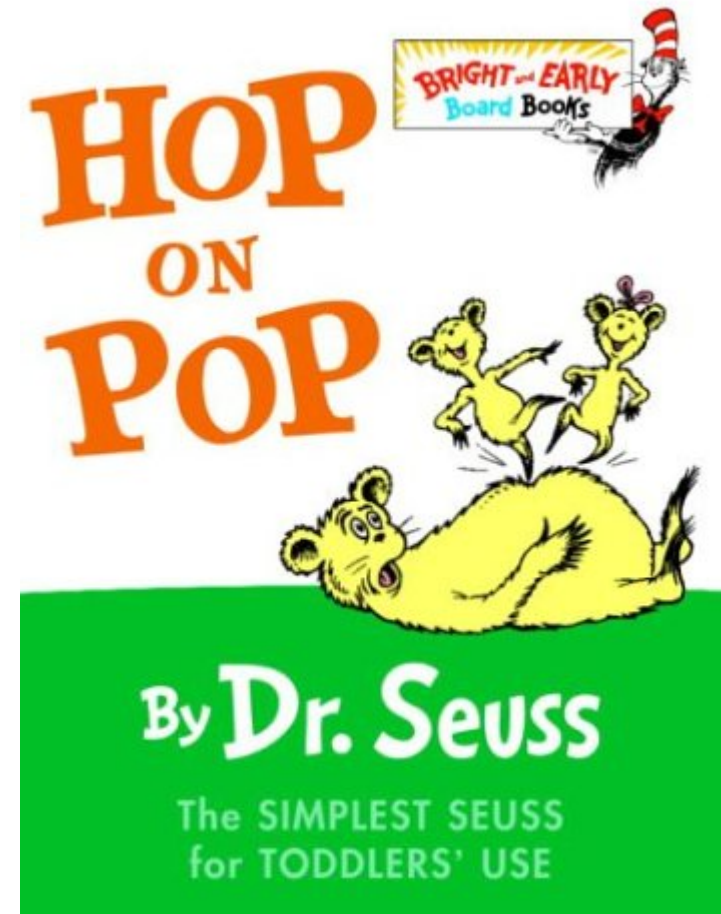
- Scenario or Task Oriented Functional Testing (TOFT)
 - Can the application do useful tasks correctly?

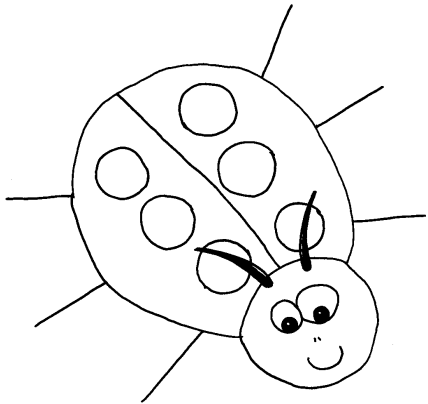




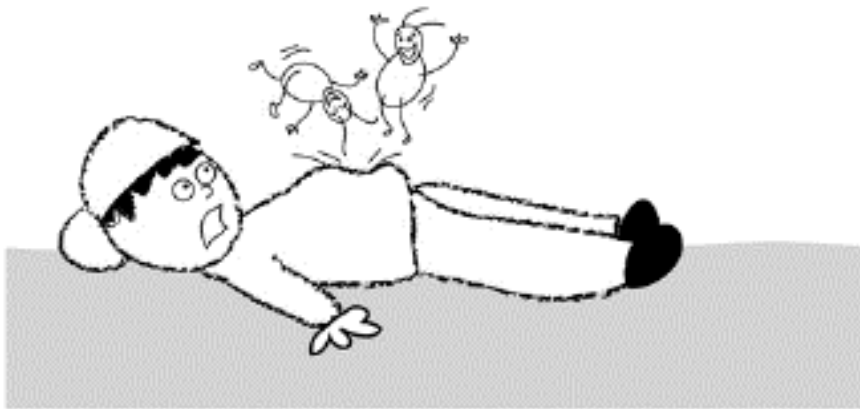
Hop on Pop

- Many simple rhymes about the real world
- On a “bad day” when you come home the kids will jump on you
- Fun for the kids
- Fun for POP?

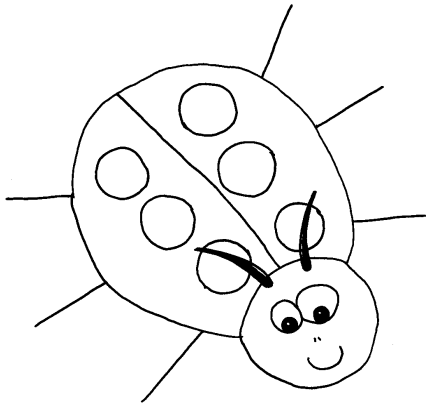




Hop on Pop



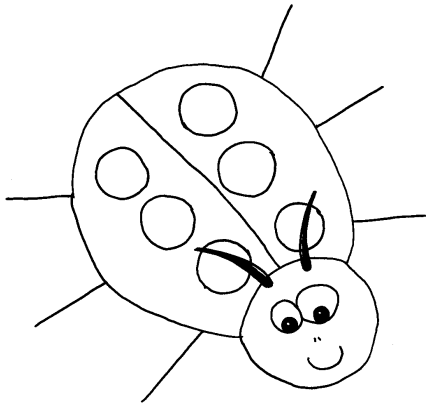
- What happens when you walk in the door?
- Are you ready ...



Sanity Testing

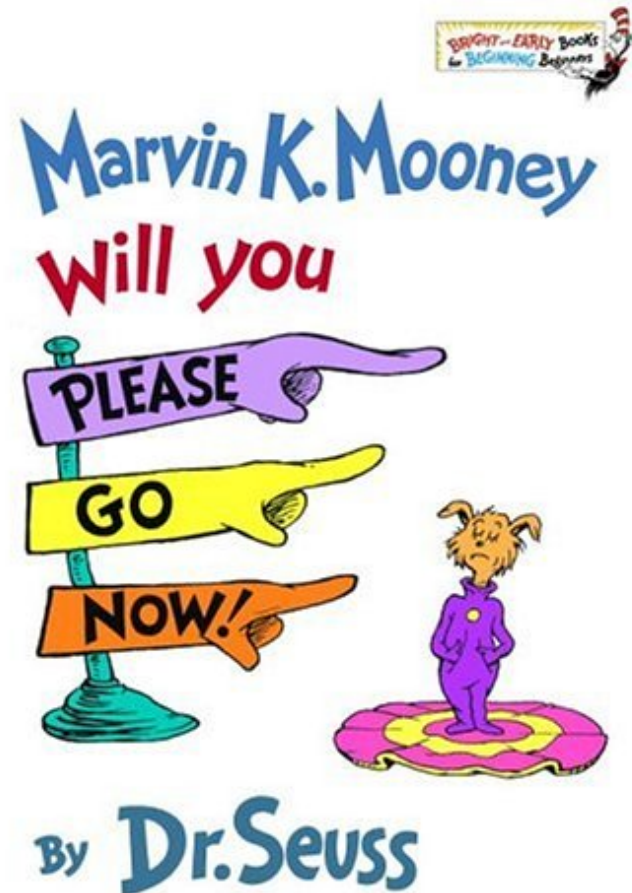
- A final test before a release can be shipped
- All normal operations and scenarios are run once with normal valid data
 - install on typical platform
 - run basic data
 - is the release sane!
 - are all components there?
 - do they basically work?

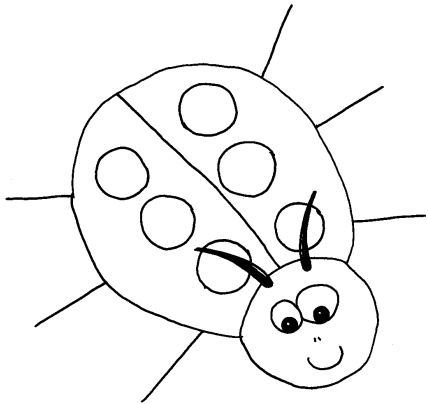




Is it time to go?

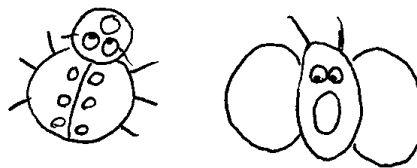
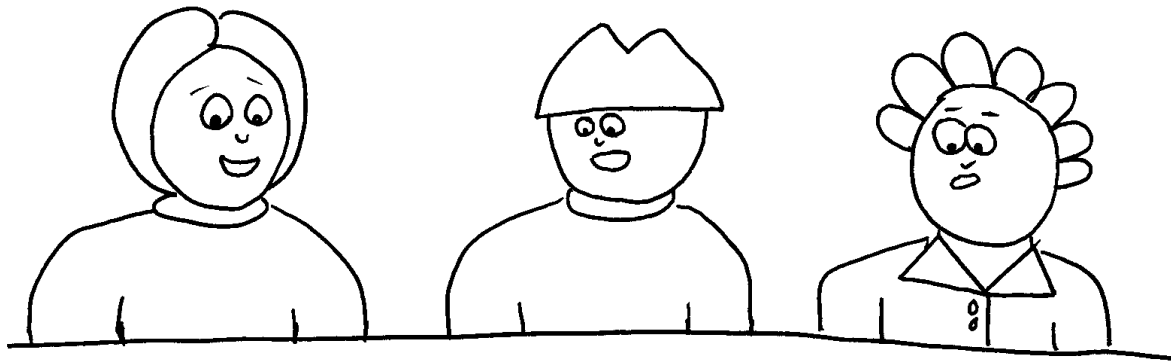
- *Many ways to decide*
- Ship decision context
- Many perspectives but only one solution
- I don't care how – please go now!
- “... and he went ...”

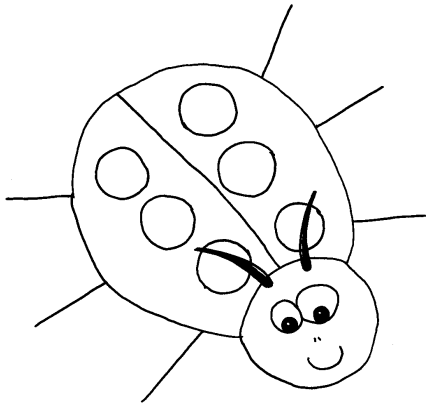




Finished?

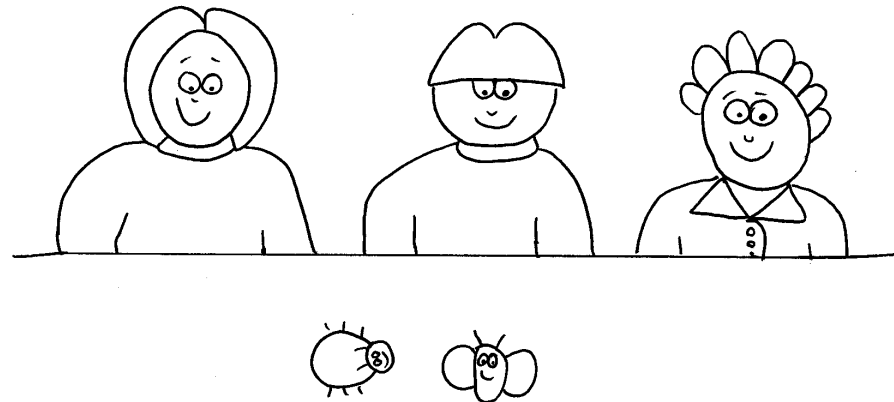
- How do you know you are finished?

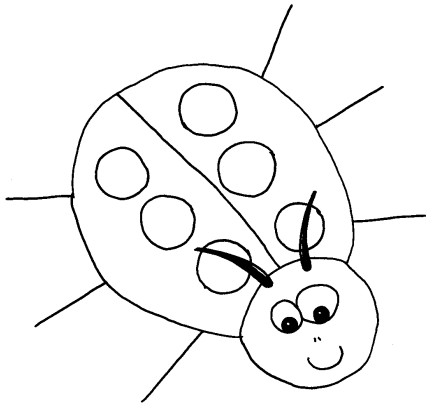




You know you are finished when ...

- ... the only bugs left are the ones that are acceptable (based on objective SQA input) ...

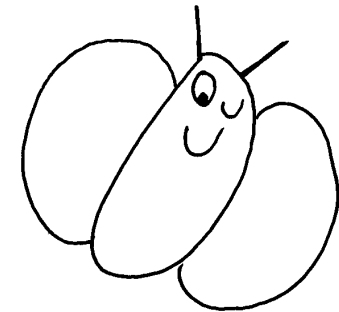
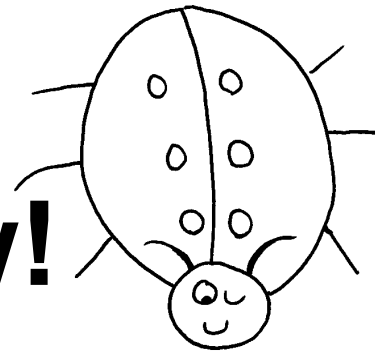


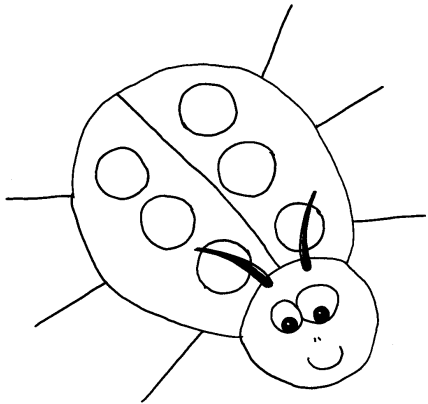


You know you are finished when ...

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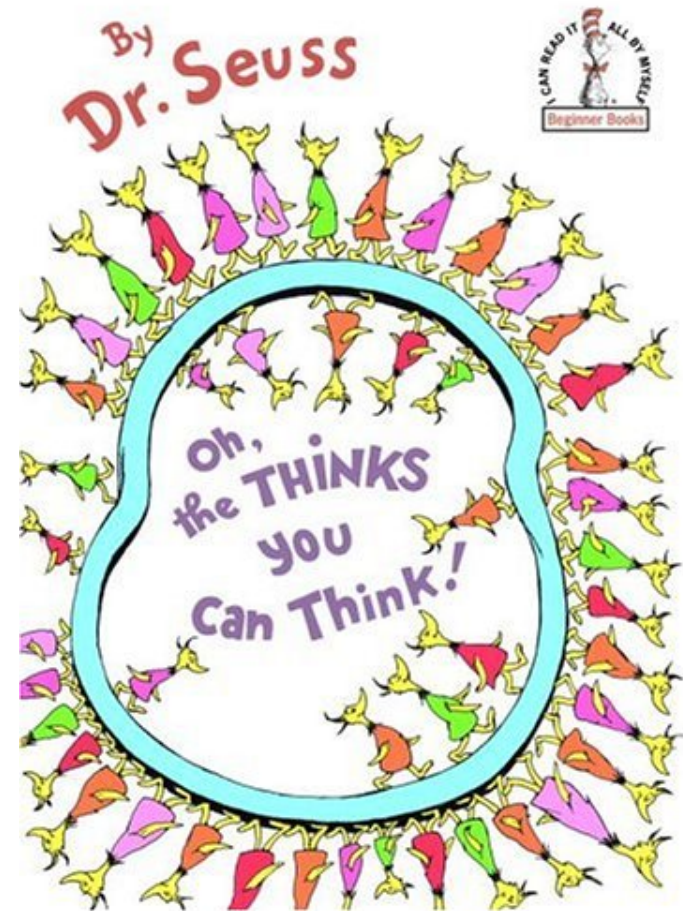
At least for now!

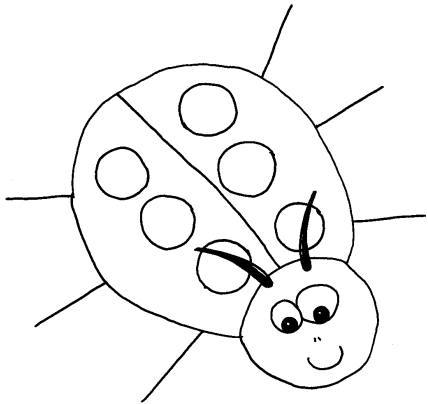




Thinking!

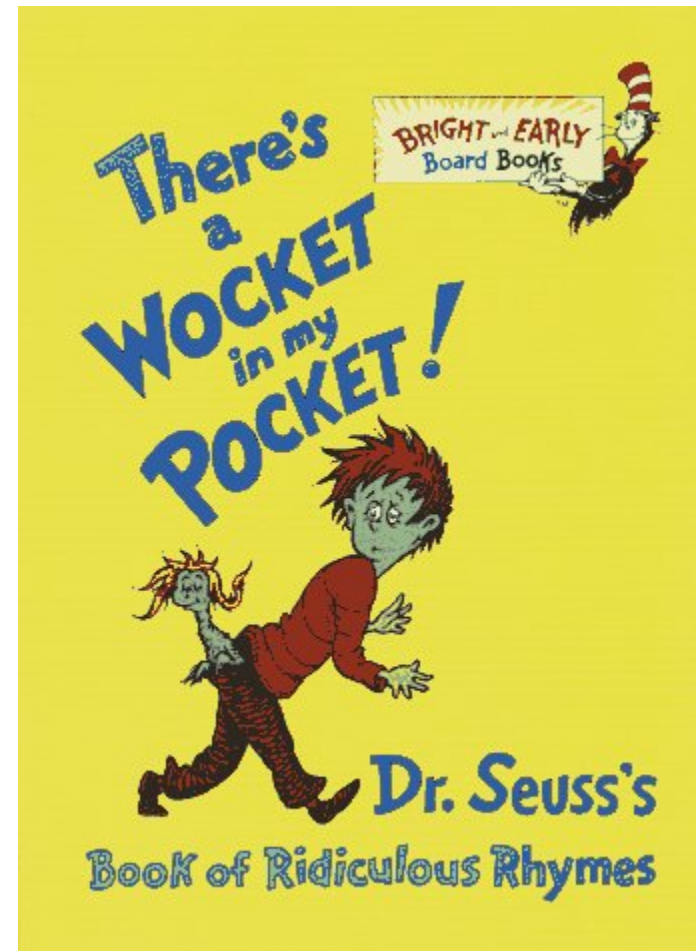
- Outside of box
- Lateral thinking
- Cognitive skills
- Explore
- Imagine

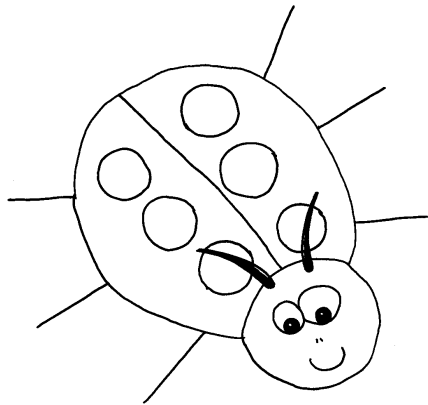




Wocket in Pocket

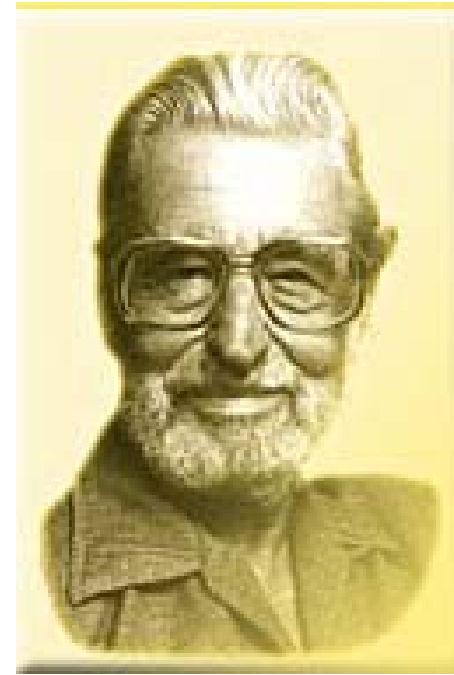
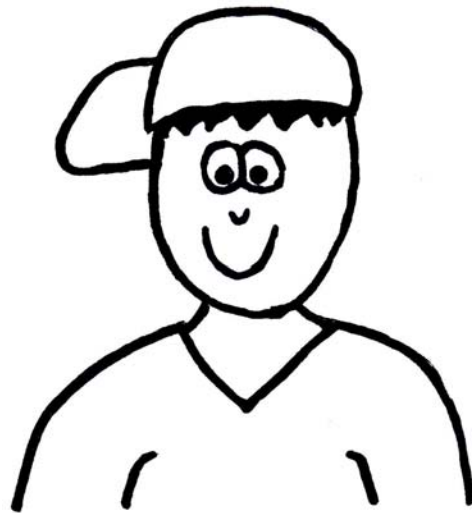
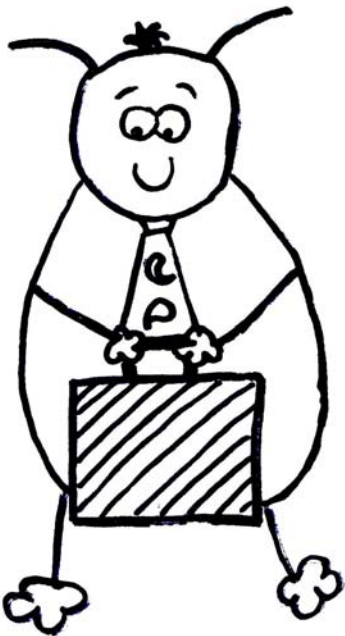
- Name equivalence classes
- Remember with acronyms (triggers)
 - Application
 - Input
 - Memory





Thank You

Questions?



***"OH, THE PLACES YOU'LL GO!
THERE IS FUN TO BE DONE!
THERE ARE
POINTS TO BE SCORED.
THERE ARE GAMES TO BE
WON."***

From: Oh, The Places You'll Go!

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Slide 34

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