

What Is Testing?

PURPOSE

- Offer an answer to the question, "What is Testing?"
- Provide a better understanding of...
 - The potential meanings of various, relevant terms
 - What makes a good tester
 - How to evaluate a good tester

AGENDA

- Definitions
- Process & Activities
- Desirable...
 - Attributes
 - Knowledge
 - Skills
- Assessment
- Resources

DEFINITIONS

- **Quality**
 - Value
 - The relative importance, worth, or usefulness of a thing
 - The regard that something is held to deserve
 - The value of *something* to *someone* at *sometime*
- **Assurance**
 - A promise of certainty; a pledge; guarantee
- **Control**
 - The power to determine behavior or the course of events
- **Quality Assurance (QA)**
 - Literally – A promise of certainty of the value of something to someone at sometime
 - Likely – Process-oriented; "Build software better"
- **Quality Control (QC)**
 - Literally – "The power to determine the value of something to someone at sometime"
 - Likely – Product-oriented; "Build better software"

DEFINITIONS

- **Testing**

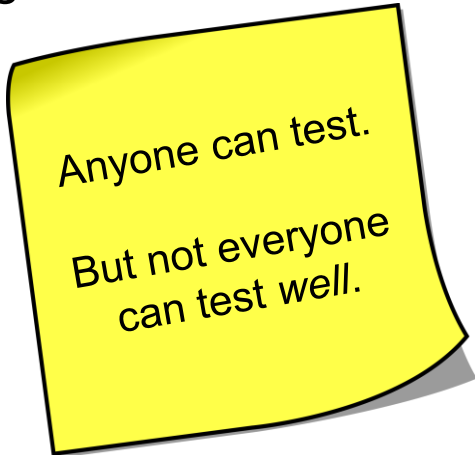
Utilizing various tools and approaches in some combination and to some degree to help evaluate quality via exploration and experimentation often to obtain pertinent, useful information and provide it to relevant stakeholders to enable more informed, confident decisions which may also indirectly lead to increased quality.

- **Tester**

Anyone who performs (or is performing) testing.

- **Test**

An instance of testing.



Anyone can test.
But not everyone
can test well.

DEFINITIONS

- **Defect**
 - A problem with *something* to *someone* at *some time*
 - An *undesirable* state that differs from some *desirable* state
 - Wants vs Needs vs Expectations
- **Regression Testing**
 - Regress: To return to or towards an earlier state or condition
 - Testing to determine if something has regressed
- **Unit Testing**
 - Unit: An individual thing regarded as single and complete...
 - but which can also form an individual component of a larger or more complex whole
 - Testing Units
- **System Testing**
 - System: A set of things working together as parts of a mechanism or an interconnecting network
 - Testing Systems

DEFINITIONS

- **Titles**
 - QA/QC
 - Test/er
 - Analyst
 - Engineer
 - Architect
 - Specialist
 - Software Development Engineer in Test (SDET)
 - Modifiers
 - Junior, Senior
 - Lead
 - Manager
 - Director
 - Coach
 - Automated/Manual

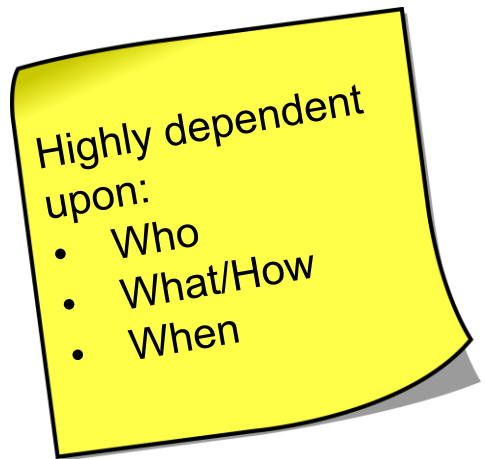


DEFINITIONS

- **Automated**
 - Human-driven test design and creation; computer-driven test execution
 - Technical, performing job duties with tool assistance
 - Languages, frameworks, tools
 - Ruby
 - Selenium
 - Watir
 - Cucumber
 - QTP
- **Manual**
 - Human-driven test design, creation, and execution
 - Non-technical, performing job duties "without" tool assistance

PROCESS & ACTIVITIES

- **Role**
 - Leader vs. Supporter
 - Automated vs. Manual
- **Methodology**
 - Waterfall
 - Agile/Iterative
 - DevOps
 - Continuous Integration (CI)
 - Continuous Delivery/Deployment (CD)
 - TDD (Test-Driven Development)
 - BDD (Behavior-Driven Development)
- **Company**
 - Case-by-case



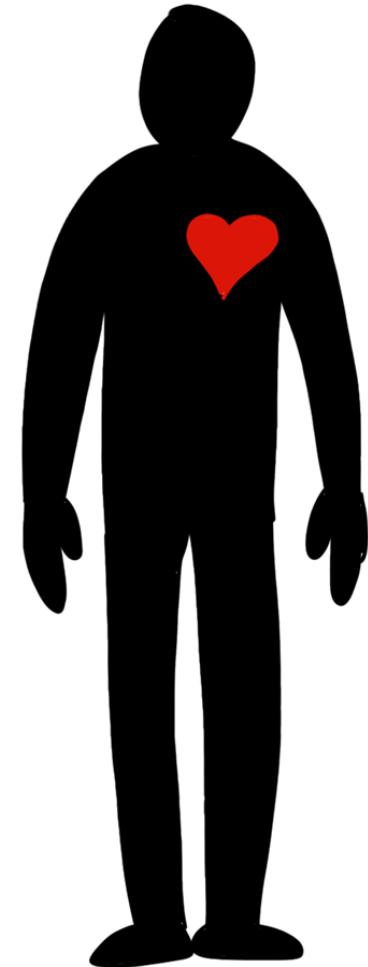
PROCESS & ACTIVITIES

- **Activities**
 - Test Planning
 - Test Design
 - Test Creation
 - Test Execution
 - Test Results Analysis
 - Reporting
 - Other
 - Defect Entry
 - Retesting
 - Framework creation
 - Maintenance

DESIREABLE...

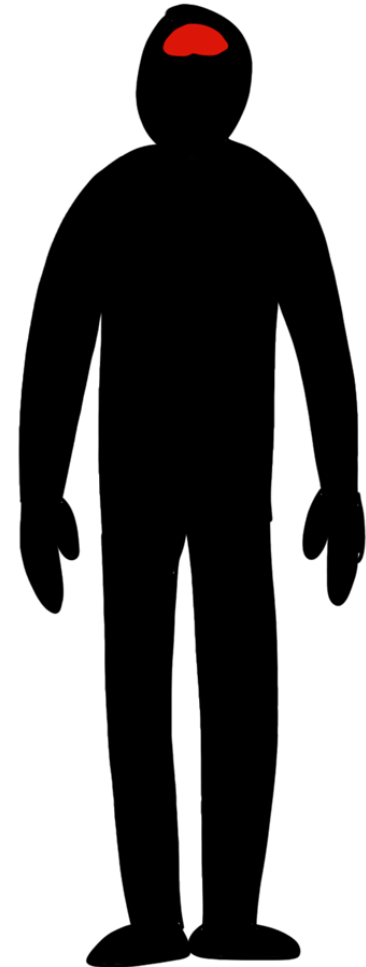
- **Attributes (things you are)**

- Curious
- Ethical
- Honest
- Responsible
- Empathetic
- Analytical
- Motivated
- Flexible
- Brave
- Tactful
- Creative
- Logical
- Rigorous
- Detail-oriented
- Self-reliant
- Cooperative



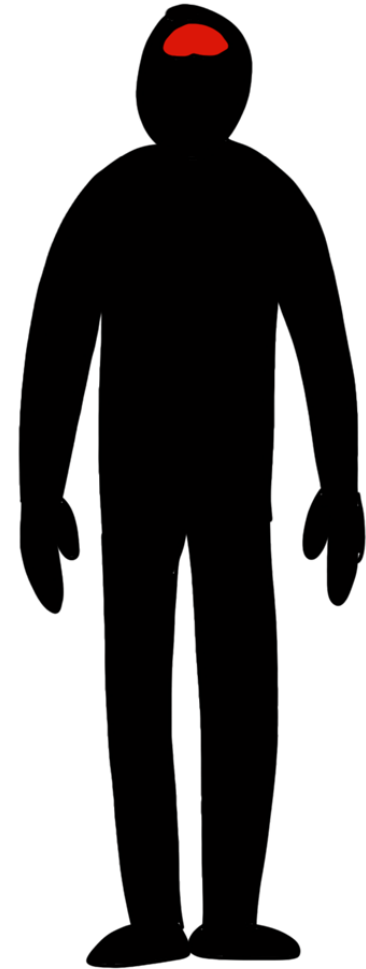
DESIREABLE...

- **Knowledge (things you know)**
 - Fundamental
 - Knowledge
 - Linguistics, Semantics
 - Modeling
 - Relativism/Perspectivism
 - Trade-offs
 - Technology
 - Languages
 - Tools
 - Testing
 - Terms & Definitions
 - Methodologies
 - Quality attributes (-ilities)
 - Techniques
 - Tools



DESIREABLE...

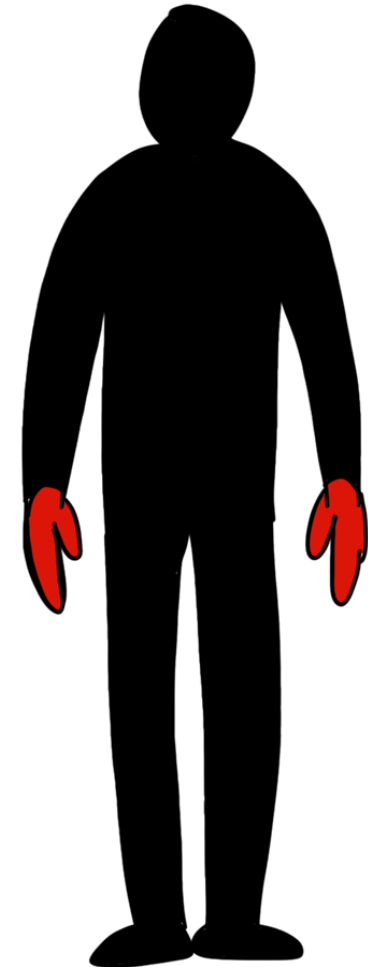
- **Knowledge (things you know)**
 - Related
 - Development Methodologies
 - Business acumen
 - PM considerations
 - Dependent
 - Domain



DESIREABLE...

- **Skills (things you do)**
 - Communication (written/verbal)
 - Listening
 - Questioning
 - Documentation
 - Analysis
 - Abstract thinking
 - Critical thinking
 - Problem-solving
 - Algorithmic
 - Heuristic
 - Negotiation

Consider the
degree of
competency for
any attribute,
knowledge, or skill.



ASSESSMENT

- **Considerations**
 - Attributes
 - Knowledge
 - Skills
- **Questions**
 - Terms and Definitions
 - Experiences
- **Actions**
 - Test something
 - Write Code/pseudocode

ASSESSMENT

- **Questions**

- What is testing?
- Why are you (do you want to be) a tester?
 - How did you become a tester?
- What product(s) or service(s) do you provide as a tester?
- Who are your customers?
- What things should be considered during test planning?
- How do you learn (about a new process, product, etc.)?
- What is the last thing you learned? How did you learn it?
- Where/how do you get test ideas?
- What do you do with vague or conflicting requirements?
- How do you prioritize your testing?
- What can/should be automated? What can't/shouldn't?
- When are you done testing? Explain.
- What if your testing time is halved? Doubled?

ASSESSMENT

- **Questions**

- What should a testing report contain?
- What if you don't find any bugs?
- What happens when you find a defect?
- What do you do about a defect you can't reproduce?
- What information is included in a good defect report?
- What is your favorite bug you ever found? Explain.
- Have you ever campaigned for a defect fix? Why or why not?
- Can quality be assured or controlled? If so, by whom?
- What are some misconceptions about testing?
- What things should testers worry about? Explain.
- Why should testers feel proud? Explain.

RESOURCES

- "Technical Test Interviews are Broken", Jeff Nyman, October 2017
 - <http://testerstories.com/2017/10/technical-test-interviews-are-broken/>
- "How do you interview testers?", Alan Richardson, March 2017
 - <http://blog.eviltester.com/2017/03/how-do-you-interview-testers.html>
- "HOW I INTERVIEW TESTERS...", Dan Ashby, December 2015
 - <https://www.linkedin.com/pulse/how-i-interview-testers-dan-ashby/>
- "How to Find, Interview and Hire Great Software Testers", Simon Knight, September 2015
 - <https://blog.gurock.com/interview-recruit-testers/>
- "What Is A Tester?", Michael Bolton, June 2015
 - <http://www.developsense.com/blog/2015/06/what-is-a-tester/>
- "Interview Testers As If You Want Testers", Jeff Nyman, December 2014
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- "Interview and Interrogation", Michael Bolton, September 2013
 - <http://www.developsense.com/blog/2013/09/interview-and-interrogation/>
- Quality Attributes
 - https://en.wikipedia.org/wiki/List_of_system_quality_attributes
- Glossary
 - <https://arborosa.org/2015/06/14/what-is-testing>
- Testing Interview Challenges
 - <http://testingchallenges.thetestingmap.org/>
 - <http://blackboxpuzzles.workroomprds.com/>
 - <http://newtours.demoaut.com/>