

# Testing and VSTS

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# Software Testing

“Software testing is the art of **measuring and maintaining software quality** to ensure that user expectations and requirements, business value, non-functional requirements, such as security, reliability and recoverability, and operational policies are all met. Testing is a **team effort** to achieve the well understood and agreed upon minimum quality bar and definition of “done.”

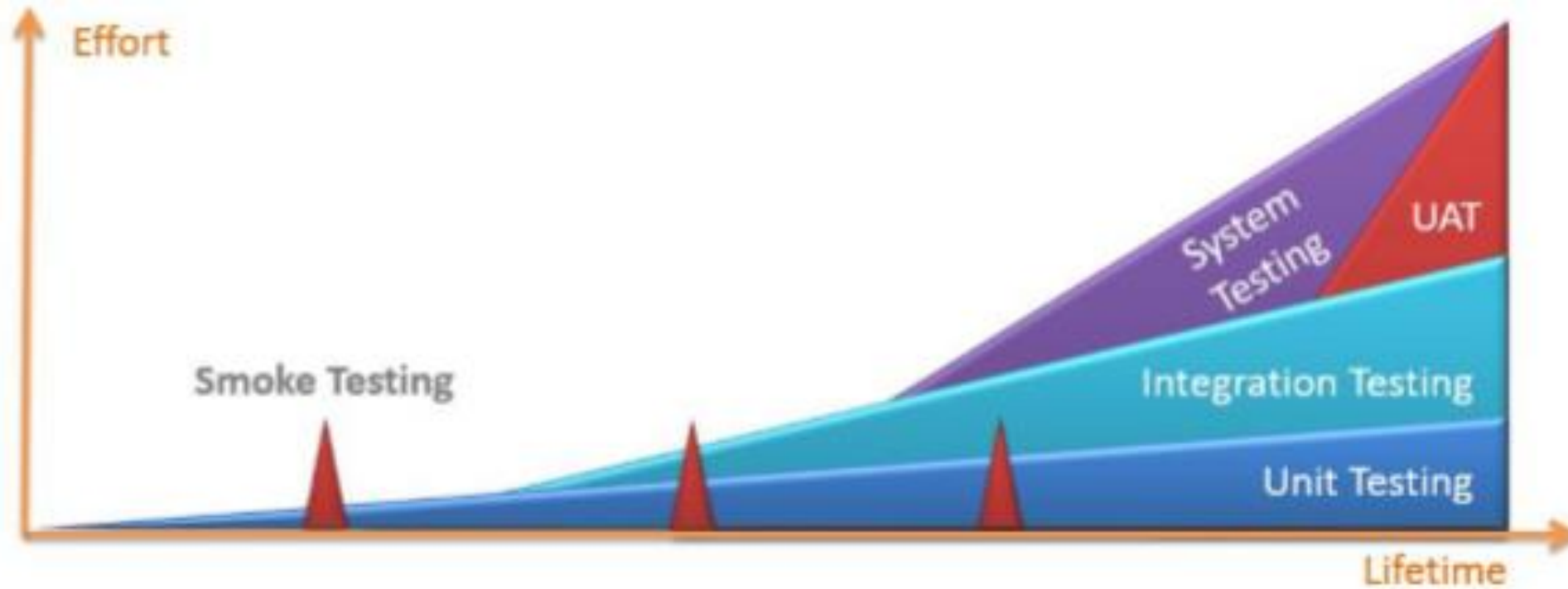
# Traditional Testing Strategies

<b>Black box</b>	The inside of the box (“solution implementation”) is dark. Testers focus only on <b>input and output</b> , typically when performing system and user acceptance testing.
<b>White box</b>	The <b>inside</b> of the box is visible and <b>analyzed</b> as part of the testing.
<b>Gray box</b>	A combination of black and white box testing typically used to <b>test edge cases</b> , which require an understanding of the internals and expected behavior.

# Testing Types

<b>Exploratory Test</b>	Tester tries to think of possible scenarios not covered by other test strategies and tests. Useful when engaging users with the testing and observing their (expected) usage of the system. There are no predefined tests.
<b>Integration Test</b>	Testing different solution components working together as one.
<b>Load Test</b>	Testing under load, in a controlled environment.
<b>Regression Test</b>	Regression testing ensures that the system still meets the quality bar after changes such as bug fixes. Uses a mixture of unit tests and system tests.
<b>Smoke Test</b>	Smoke testing is used to test a new feature or idea before committing the code changes
<b>System Test</b>	Testing of the entire system against expected features and non-functional requirements.
<b>Unit Test</b>	A test of the smallest unit of code (method / class, and so on) that can be tested in isolation from other units.
<b>User Acceptance Test</b>	Toward the end of the product cycles users are invited to perform acceptance testing under real-world scenarios, typically based on test cases.

# Traditional Usage Testing types



# To Unit Test or Not to Unit Test?



What is Shift Left Testing?

# Consequences of testing late in the cycle

- Testing not a first class citizen.
- Not enough resources to test.
- Defects are uncovered after significant effort wasted.
- Regression testing is harder.
- Less time available for fixing bugs.
- Increase of deployment and maintenance cost.
- Lower team morale.



# What we will go over

- Creating a Test plan
- Creating Test Suites (including Query based)
- Creating Tests
- Running MTM (Microsoft Test Manager) from VSTS
- Syncing between MTM and VSTS
- Adding screenshots while testing
- Adding a bug after a test
- Creating test work item templates
- Adding tags and filtering by tag
- Creating/Adding shared steps
- Creating/Adding shared parameters
- Adding tests from the grid view / excel
- Adding configurations
- Runs Summary



**Bill Sempf**

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Follow

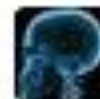
QA Engineer walks into a bar. Orders a beer. Orders 0 beers. Orders 9999999999 beers. Orders a lizard. Orders -1 beers. Orders a sfdeljknesv.

RETWEETS

20,979

FAVORITES

12,415



8:56 PM - 23 Sep 2014

Test Demo Time!