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Tool Support for Testing

Objectives:

Understand the types and purposes of test tools in the test process

Test tools are used to help us complete our tasks and makes it simpler

There are 2 types of Test Framework explained for the ISTQB

- Test Harness/Unity Framwork Tools – this is where stubs and driver are used to execute a test. Often held within libraries for reusability

- Test Exectution Tools – A type of test tool that is able to execture other software using an automated test script, e.g. capture/playback. [Fewster and Graham]

Test Tools can improve efficiency in:

Test Planning

Design

Reporting

Monitoring

Benefits of Risks of Test Automation:

Risks: pg 20?

Static Analysis:

Early detection of defects prior to test execution

Improved maintainability of code and design

Early warning about suspicious

Deployment of Test Tools

Assessment of organization maturity

Proof of concept

Provide technical support to the test team for each tool

Conduct Periodic lessons learnt reviews with tool users

Make sure processes are improved to reflect any new tool

ISTQB

Pg 199 Review

Defect Management

Objectives

Understand the need for bug detection and apply the defect

Definitions IEEE Standards

Problem/Fault/Failure/Defect

Bug =/= defect

A bug is a mtured form of defect, only if it affects operation

Reasons for bug testing

Bugs – 2 Main Castergories

Detection

Prevention

>Writing better spce

>Code reviews

>Static analysis

>Unit testing

Determining Severity – Categorising

It helps to determine the efficiency of Test Process

It helps to decide the priority of the defect, hence improves overall development process by fixing higher priority defects first

The bug tacking process can be made more effective if the severity of the defect clearly defined

Tips

Isolate the Defect

Analyse the defect, what class of inputs does the defect support

Does the defect only happen with a specific sequence of events? List things that doesn’t make it occur

Decide on Impact and Severity Early on.

Look at Bug Tracking Flow Diagram

Bug Tracking Problems

Improper bug logging process

Use of different bug tracking template

Improper Defect Triage (analysis, assess) Process

Bug Tracking Tools

Improper set up of Severity and Priority

SPOC (single point of contact)

No Control on Test Environment

HPQC