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CSE 464
Homework 3 Phase I

1) Five Key Challenges in Effective Testing:

Balance Time Spent:

When the triage team decides a bug is not worth fixing that has been reported, any programmer can decide to try to appeal that decision. However, this means that they will need to justify the time that will be spent fixing the bug that has already been deemed admissible.

Deal with Conflicts of Interests among Stakeholders:

As described in the lecture, a stakeholder might have the ability to deem a bug (such as a UI issue) as unimportant. However this then comes into play with whether other stakeholder believe the bug is unimportant and where the line needs to be drawn on what decisions any single stakeholder can make.

Present Problems to People under Stress:

At the end of the developmental period when most of the blackbox testing happens many bugs are subverted because they are either too small or too complicated to be dealt with at the time. It is necessary that in this time where work is overpiling that the bugs that are being reported and dealt with are the best ones to be working on.

Preserve our Credibility:

Once again in the stressful time of fixing many bugs, it is important that the bugs that are being worked on or not are chosen appropriately. This is because any bugs that are not fixed that result in negative user experience in the stakeholders can cause the group responsible for that bug to lose credibility.

Preserve our Integrity:

As the developers it is the team's responsibility to put our a product in which the stakeholders and users are all satisfied. If the bugs that are coming up and fixed (or not) are not dealt with properly it will diminish the self image the company has as developers.

2)

a) Bug workflow is "how workgroups handle bug reports."
-Starts with a tester finding a bug, investigating how it happens, and reporting it.
-Next another person is used to replicate the bug and determine the validity of it.
-A programmer then looks into the bug and decides what is to be done with it.
-Programmers can send bugs to the Project manager who then diverges resources towards the bug if deemed necessary or puts it on the backlog.
-If testers and programmers disagree on a bug status they can send it to the Chance Control Board that will deem the outcome.

b) Okay

i) Who is involved in the Triage Process?
The Change Control Board (CCB) or Triage Team or Project Team

Testers
Programmers

ii)

-Starts with the disagreement between testers and programmers as to whether something is a bug that needs to be fixed.
-This disagreement is then brought to the CCB that determines whether bugs that “seem expensive or that are deferred.”
-The CCB makes the final decision on what to do with the bug.
-A programmer can however put in a case to try and have the bug be fixed anyways, though this usually does not happen as it would require extra resources after it has already been deemed not worthy.

3)

A bug report is considered a request because you are requesting someone to fix the bug that you are reporting on. It is important to write it effectively and persuasively because the way in which you write bug reports is sometimes viewed as your representation of self and reflects on how intelligent you appear.

4) <u>3 Usages of a bug tracking system:</u>

-Getting the right bugs fixed: anything that does not directly affect the main process of the code is a side issue and should be dealt with as such.
-To report a bug well: Using the system it is important that the bugs you are reporting are being reported well and correctly given the issue that they are caused by.
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5) Steps:

Isolate the Failure:

This step is to make sure that you are as positive as can be in what is causing the bug. You have your set of steps you produced the error with? Now shorten it to as few steps as possible that still produces the bug. This will provide a way in which it is easier to determine where this bug is coming from.

Generalize:

Basically to increase your test cases within a range and find out under what circumstances within your supposedly acceptable range that it is failing to accept the input.

Externalize:

Look towards the stakeholders and find out what are the consequences of this bug. If the bug does not actually affect the product in the end or if it must be solved based on the wishes of the stakeholders determines how the bug should be dealt with.

Clear and dispassionate reporting of the bug:

This is the point of making a bug report as easy to understand as possible. Do not throw in any views such as accusations for the bug being around or shame others. Make the bug report just neutral facts about the situation.

6) <u>Fields in a bug report:</u>

Report Type: What kind of issue- documentation, coding error, suggestion...

Severity: how big of a problem the tester thinks the problem is.

Priority: how soon the programmer or PM thinks the problem should be resolved

Problem Description: What the problem is and how to reproduce the bug.

Suggested fix: Just your take on what to do to resolve the problem (leave blank unless you have an actual idea)

Status: status of the bug- “open/closed/dumpstered”

Resolution: Has it been resolved - fixed/deferred/etc.

Comments: Field for anyone to comment on the report.