

Excerpts from participants work

Practical Software Testing Training – Batch 9

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Context:

I have been walking on the roads of Bengaluru (Bangalore) and other metropolitan cities in India. After I became a tester, I started to notice lots of training institutes that claim to teach software testing with job guarantee for entry level positions. Many IT companies were also linked to them and were absorbing the candidates who pass through of their training programs.

On questioning about the course and value, I found that their training approach is to run hundreds of slides and asking the students to memorize the slides, plus an examination, that primarily tests the memorizing capability. Other than that , “I know a testing tool and hence I can test” attitude also rules the market today. Unfortunately most training institutes have people who have not had any software testing experience to be able to teach others how to test.

There is no doubt that those students don't have any practical exposure. Also, they are clueless of what it means to sit in the tester's seat. I found that the way we shape the young minds in software testing has a huge influence on the future of software testing.

A couple of months back, I was invited for a lecture at a large Indian organization who have stringent standards of training before they assign a candidate a project to work on. I asked a question, “How many of you are passionate of becoming a software tester?” to a large audience of fresh graduates. Please don't be surprised - none of the hands went up and silence threatened the auditorium.

On probing them, I found that they were dumped (yeah “dumped”) into software testing because they failed to clear Java, C, C++ examinations. With this on going attitude, do you see our children wanting to be software testers?

While I was too bothered about this problem in India, I found a companion who was equally bothered about it – Mohan Panguluri, COO, Edista Testing Institute. I didn't smell “yet another testing training institute” in them and they were so different.

Having a common bothering element, we struck a plan to demonstrate the value we could add. We created the Practical Hands on Software Testing training and piloted it over a few batches before we started talking about it in public.

The Gap and Building a Bridge:

The academic education in universities and colleges in India, is not yet structured in a way to meet ready deployable resources. The whole of the IT industry in India talks about the gap and it continues to be a problem. The idea of 3-4 month induction and training program claims to solve some parts of the problem to large organizations and provides a business opportunity for training institutes to make money through short term courses. We don't think there is a crash course in software testing and in airplane training.

With "run the slide and pass the memory test" training programs, we felt the industry had to absorb them because the comparison was between trained people versus not trained people. Unfortunately, many organizations that have induction and training program for college graduates who are hired for software testing also underwent similar training. The standard of what the students can be at the end of training program is what we have broken and we hope we have made a small attempt to take it to the next level.

We also observed that interviews for software testers were influenced by this and hence the interviews today are more or less – can you state the difference between sanity and smoke testing? . The interview was yet again about passing the memory test. That's why many people who faked their testing experience could get through it.

So, there are two ends – one end that has people and other end who needs people. We decided to build a bridge from both ends till it meets each other.

Inspiration:

We were inspired by the transformation that caused in many experienced testers when they underwent an exercise based approach and experiential learning to learning software testing. The pioneers of the exercise based approach, to our knowledge are, Jerry Weinberg, James Bach, Michael Bolton, Cem Kaner, Scott Barber, context driven testing community members and other testers in India.

The excerpts:

We understand that too much of talking doesn't help and hence it is time for you to witness the excerpts that we bring for you.

Test Experience Reports:

After one full month of practical software testing, we pick a project from the open source (www.sf.net) and give a testing mission to accomplish. Each participant gets a different project. A part of their project report is the test experience report.

So here is one unedited excerpt

Santhosh Tuppad Report (Also started a blog <http://testersblog.com>)

Project Assigned: 12th March, 2009.

I started with the project work from 14th March, 2009. The first task was to download the project from the project homepage. After downloading the project I downloaded the prerequisite of this project that is Java Runtime Environment. When I downloaded the project & installed JRE, I was able to explore the product very soon and understand it's working which helped me to save time and invest this time in documenting the test ideas & finding the problems as soon as possible. To get more test ideas I referred to the Heuristics document by James Bach. I was able to find problems in the product using "*Heuristics*" & "*Oracles*". I did well in covering the user interface by finding as many problems I could. Below you can find my detailed experience which is categorized into different questions.

1. What did I do well?

I spent more time on finding different bugs in a bug. I mean there are possible chances that there can be more bugs associated with a single bug. I didn't report a bug as soon as I found a bug but I tried different strategies to find bugs in a bug. I did well in finding more problems in "Capability", "Usability" & "Reliability" quality criteria. Firstly, I concentrated on Installer and thereby Application & then Uninstaller so that I can know what all I have covered. As I was testing the product, I was documenting the test inputs so that at the later point of time I can know what other inputs I haven't tried which will give me a better idea of covering the other test inputs.

I also performed a Browser Security Test that is available online which is used to find the vulnerabilities (Source: <http://bcheck.scanit.be>)

2. What did I not do well?

I didn't do well in finding more problems with the other quality criteria like "Performance", "Scalability" however I performed the test ideas but the result was negative in finding the problems. I don't conclude that there were no problems but it was because I failed somewhere to find the problems associated with these quality criteria's. Referring to "Security" quality criteria, I found some problems which I was not able to reproduce all the time which restricted me from doing the proper investigation.

3. What wasn't I able to do?

I was not able to test the product on different platforms. This product was tested on Windows XP SP2 Version 2002 only.

4. Why wasn't I able to do whatever I couldn't do?

Due to lack of resources I couldn't test on different platforms. My computer has old configuration and less space and less RAM which restricted to install different OS and test the product. However I tried to test it on Windows 2000 from a cyber but I was not able to test it because there were no administrator rights given to the users however I was able to download but I was not able to install the product.

5. How much time did I put in on daily basis?

I started the project work from Sunday morning. On daily basis I invested approximately 9 hours of time on this project.

6. What did I learn about what I don't know during these days?

I learnt that writing the version number accurately in the bug report is very important. I learnt this by a mistake which I did while reporting the bugs. If you see the bug reports I have mistyped 0.98.4 as 0.9.84 in some of the bug reports. Thereafter, I changed the version number to proper version number in new bug reports.

I also learnt that investigation about the problem is important because it will help the testers to improve their skills & investigation helps a tester to find more problems.

I also came to know about the spelling mistakes which I used think are not spelling mistakes using a spell check of Microsoft Word (Example: I used to think "Comparision" is the proper word, but I came to know that it's "Comparison").

Now, I always use Microsoft Word for documentation purpose.

There are many things which I have learnt but I'm not able to recollect just because I missed making notes? So I learnt to make notes.

7. What tools did I use in this project & what tools did I discover?

The tools which I used in this project are listed below,

Batch Script (Written by me by using batch of DOS commands)

Batch scripts are easy to be written. You need to just specify the DOS commands in the notepad and save the batch file with the .bat (dot bat) extension.

Auto It

URL: www.autoitscript.com

This tool was used by me to automate the testing for Shoe Test Heuristic as well as clicking on a specific button for number of times specified in the script. I suggest testers to try this tool because I find it very helpful to automate the tests. It has a help file documentation and some of the examples to get started.

Microsoft Paint

I used this tool to edit the screenshots. Thanks to Microsoft for this useful tool provided with Windows XP SP2.

Windows Media Encoder

I used this tool to create a video file for uploading it on bug tracker. This is a very useful tool for testers developed by Microsoft. It's a freeware and easy to use. To download it type "Download Windows Media Encoder" in Google search engine.

PerlClip for testers v1.3

This tool is very useful for "Boundary Value Analysis". This tool is developed by James Bach & Danny Faught This tool can be downloaded from www.satisfice.com/tools.shtml

Browser Security Test

This is an online tool which is used to check for vulnerabilities in the browser.

URL: [http:// bcheck.scanit.be](http://bcheck.scanit.be)

Here is another one:

Shwetha Ghorpade

I started the Testing activity with first understanding what the application is supposed to do and started using it to explore its functionality and features using the help file for guidelines. I found the application very interesting and powerful with respect to functionality and its features and I also downloaded the source code of the project which was in C++ and went through it.

I started Testing the project keeping in mind the Quality criteria's and planned to go about a structure to cover all the criteria's. I also planned to classify the bugs which may be symptoms of one main problem and to report it as one bug. I also planned to cover testing the application on Linux.

I did well in understanding the application and getting enough information about it .I also did well in testing up to some extent and I was able to cover all the criteria's. As I followed a structure to cover all the criteria's and I had started testing the application from Installation Uninstallation and then moved on to Usability and Functionality. I felt I found major bugs with these criteria's and I did a fair testing with these criteria's which helped in covering and finding bugs with the reliability and scalability and compatibility and resource usage criteria's .

I also used a comparable product Asuite which was listed as a comparable product of Launchy in wikipedia which helped finding flaws with Resource usage and Security.

I used some tools and learnt about two new simple tools during this process which helped in my testing activity. I did not do a lot of tests for the security criteria but I tried covering the criteria and found an important issue.

I did the basic tests for the application on Linux with Ubuntu operating system live CD which had some constraints while performing tests as it was a live CD .I wanted to install Linux and do a full fledged testing on Linux operating system but I was unable to do this because of the time constraint .I also could not test the application on Vista OS as I did not get the CD to install it.

In doing the whole project I realized the value of documenting the tests done and writing a test plan to perform tests in a structured approach. This helped in covering all the quality criteria's and finding potentially important bugs that affect the end user and the product. Following this kind of approach I did not face the difficulty of falling short of ideas to test.

Incident Report:

During the course, we pointed the participants to James Bach's investigation report (<http://www.buccaneerscholar.com/images/cheesegrater.pdf>) and asked students to derive their own versions of it. And here is one of the participant's work

Satabdi Roy
Participant, Hands on Testing Training, Batch 9
Edista Testing Institute

Title

Analysis & Repair of an unused old Computer.

Overview

I tried to fix a problem of an unused old computer. This document detailed the identification of hardware issue in my old computer, analysis of the hardware problem and corrective measure found for the hardware problem.

Current scenario with the hardware problem

I relocated from Kolkata to Bangalore on last week of January. After that I took admission at Edista Testing Institute for a Software Testing Course. Then I realized that I need a computer for my studies. But it's tough to bring my computer from Kolkata to Bangalore. I found one of my friend's computer, which was not in use from last 8 months. I decided to borrow the computer from him.

After setting the computer in my residence I switch on the computer but it took a very long time to boot at the first time. Then I clicked the start button of the computer to have a look on the programs installed in the computer & saw nothing installed in it. I inserted my pen drive to copy some software setup, but the computer took too much time (near about 10 minutes) to detect the hardware device. When I tried to run the setup from the pen drive it was not responding. I collected software setup CD from one of my friend & tried the same but I was unable to install any of the software. By that time I was sure that there is some issue related to either OS or Hardware of the computer.

I had to solve the issue as soon as possible so as to get the system in working condition.

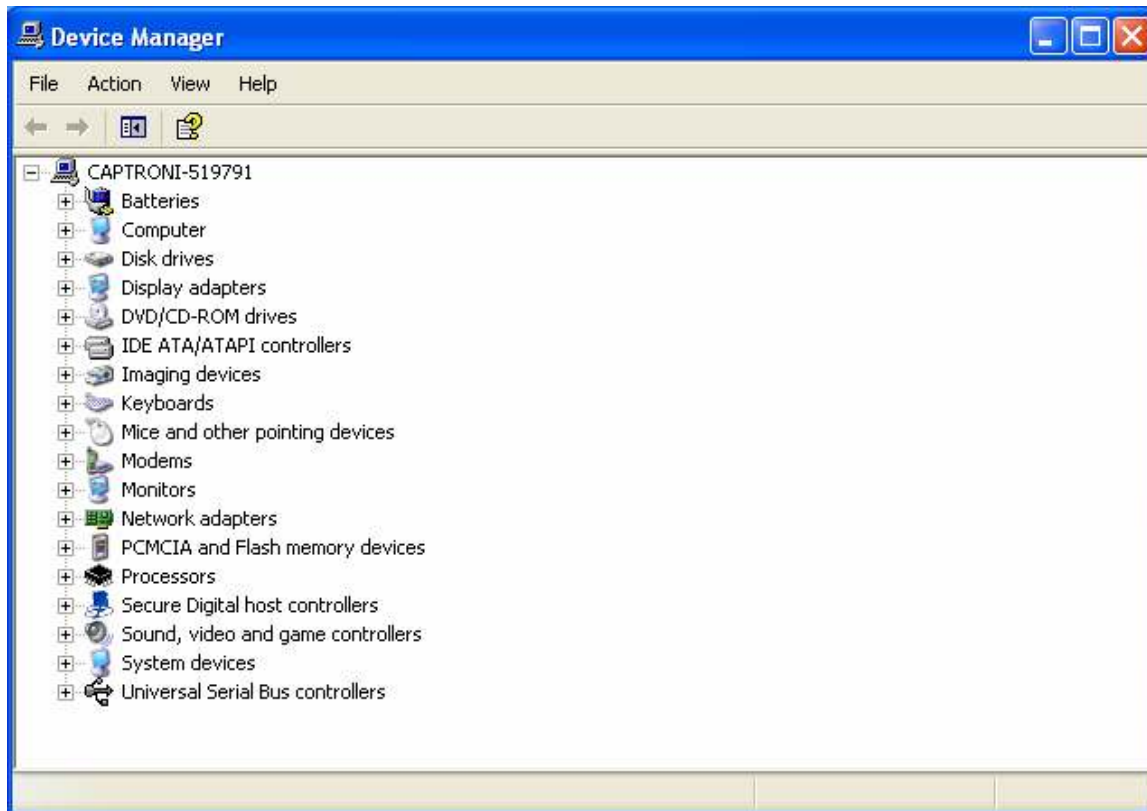
Analysis & Repair Process

Operational inspection of the system confirmed that there might be some problem with Operating System. Initial repair strategy was to reinstall operating system. By collecting a OS setup CD of Windows XP, I tried to format the computer. While reinstalling the operating system I noticed that it took near about 5 hours to complete the whole process of OS setup. I thought that after formatting the computer, I will be able to solve the issue but I couldn't.

Second phase of operation was to check the usability of the software after installation. I thought to install some software which I will need for my studies. I decided to install MS Office & Adobe Reader. During the installation of this software's I observed that it was taking much more time (near about 3 hrs) than my expectation. I tried to open MS Word from run shortcut, it opened after 2 minutes. After that I inserted my pen drive to open some word document. A word document of 216 KB took 3 minutes time to open directly from the pen drive. Although after installing some software the system response was very slow, there might be a chance of some hardware issue with the system.

Prior observation During the OS installation process I noticed that time taken for installation was abnormal so I thought that DVD ROM of the computer might have some problem that's why the process was going slow. But when the installation completed I was sure that there is no problem with the DVD ROM.

Next I clicked on My Computer icon & went to device manager to check that all hardware & device driver are working properly or not. By the investigation I came to know that there are some hardware device driver is missing. I contacted my friends & he informed me that he had lost the Motherboard Driver CD. As because I have not internet connection at my home I am unable to download the driver. I asked him to download the driver & send it to me as soon as possible.



Device Manager Window. (#Note the Above screen shot is of another system.)

Then finally I tried mark out the faulty hardware. My first intuition was toward the hard disk drives. As because it was taking too much of time to do any data transfer task. While performing these tests suddenly I got shocked when my system crashed and I got a blue screen error.

Immediately took the cabinet and went to the hardware shop. I had no choice then to opt for the option as because after blue screen error I tried to boot the system was showing that there is no boot file in the system.

When the shop owner opened the cabinet he found that there was some problem with overheating of the processor which lead to the mother board damage. Finally I changed the whole set of motherboard and processor to make the system working.

Outcome:

My assumption of hard disk problem was wrong and the reason came out to be something else that was beyond my scope of handling.

_ end of incident report but there's more _

Bug Reports

An airplane flying class without an airplane? That's another important question to be asked. The following are bugs reported by the participant in Mantis that we had set it up for them.

Santhosh Tuppada

Summary: 0000624: Improper message in the status bar

Description: Product: Lobo Browser (The pure Java web browser)
Version 0.98.4 (Development Release)
Heuristics: Usability.

Kindly refer to the statusbar.JPG in this bug report and continue reading further.

Investigation

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I tried to check why it is displaying "Processed URL" even when the page is not processed. I see that "Processed http:" is written in the status bar by default. It's just appending the URL to "Processed http:" and displaying it in the status bar even when the URL is not processed.

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Risk: By seeing the status bar user might feel that the page is already processed but might keep waiting for the page to be displayed on the browser.



Sonia Bansal

Summary: 0000744: Problem with Help option in Help tab

Description: Observation:-

When I open a Help option and go to the Index tab the screen is divided into two halves. On the left there is a tree structure which has many clickable tabs. When we click on the tab for the particular feature it opens its details in the right half.

Investigation:-

1.I noticed that for many headings like auto save, undo, it opens the details of some other heading and we have to scroll down to read the desired one.

2.I noticed some details related to previous version which might create confusion among the user like undo and auto save.

Additional Information:

Heuristic: Usability

Oracle: Inconsistency within product

Time taken: Approx 15 mins

Product: FreeMind Version 0.9.0 RC3

Application Run Time environment: JRE 1.6

Operating System: Windows Vista Home Premium SP1

Sai Pavan

Summary: 0000707: No warning message is showing when multiple tabs are closing.

Description: When user is trying to close the window which contains multiple databases opened in tabs the application is closing the window without showing any warning message.

Consider user working with two different databases, let us assume that he unfortunately press the close window button instead of pressing close tab button. As the application is closing the window without any warning the user is forced to open the database again in order to continue his work. This may consume user time and sometimes this may irritate the user.

Suggestion: The application will be user friendly if it shows a warning message saying that 'close all the tabs?' with two buttons 'OK' and 'CANCEL', when ever user closes the window which contains multiple tabs.

Shwetha Ghorpade

Summary: 0000752: Plugin options not visible on disabling and enabling it.

Description: In launchy version 2.1.2

- When a user selects the Plugins option and disables any of the plugin weby, calcy, Runner or Gcalc and tries to enable it again the options for plugins disappear.
- The Plugin options appear on trying to view it only in the subsequent time.
- This is a problem with all the available Plugins which have plugin options.

This can mislead the user that the plugin does not have options. If the user is aware of the options and does not see it displayed in such a case it would affect the applications credibility.


Additional Information: Heuristic- usability, functionality

video is attached below for further references about the Problem.

Platform: Windows

OS :Microsoft XP professional

Version :2002, SP2

Attached Files:  Launchyplugins.wmv [\[△\]](#) (341,432 bytes) 21-03-2009 09:47

You might be suspecting if we picked the best ones to present it to you but we must say that there are much better ones than what I have shared in this document.

Conclusion notes:

- We believe that this training has a potential to help in seeing a better testing community in future (of course we are not saying this is the only thing out there like that)
- If you wish to be a part of supporter of this kind of effort, you may send us an e-mail to isupport@etifinishingschool.com with your Name, Your designation, Your organization name, Your web address and we shall add you to our current list of supporters and publish it in our website.
 - Your e-mail id's wont be published unless you specifically authorize us to do so.
- You may also contribute to this by offering a lecture to such participants in future.
- You may also act as mentors to participants who have completed this course.
- You may influence your organization to hire these people and strengthen your testing staff or test them out by offering an internship in your organization.

After we did all this, we realized something was missing in the bridge and that was you and your support for the bridge to stand and get connected. The change has always been in your hands. It is you who make a choice. What is your choice today? Do you support this work?

