Welcome to the next practical session of embedded software testing.
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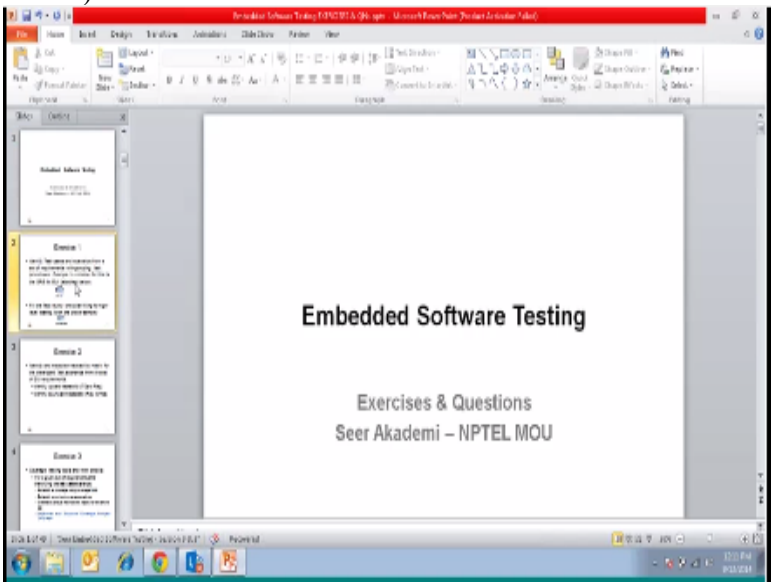

We studied in earlier session about a how to create a test cases from an embedded software requirements.
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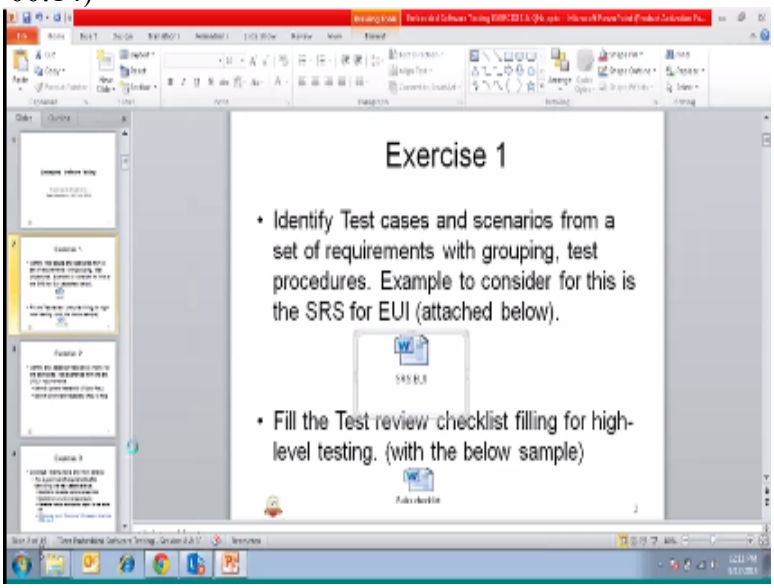

And we also learn about the check list that are require to the embedded software revise is an validation and today we try to understand traceability between a requirements to test case okay so for traceability you know that you should trace from the requirements test case one level and form test case to requirements both levels are requirements we have the coverage okay just try to open exercise document.
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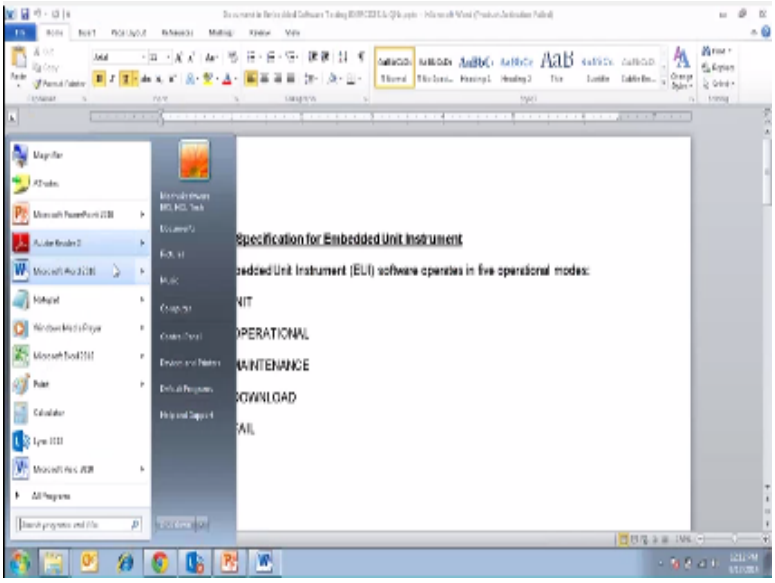

And also try to open test specification.

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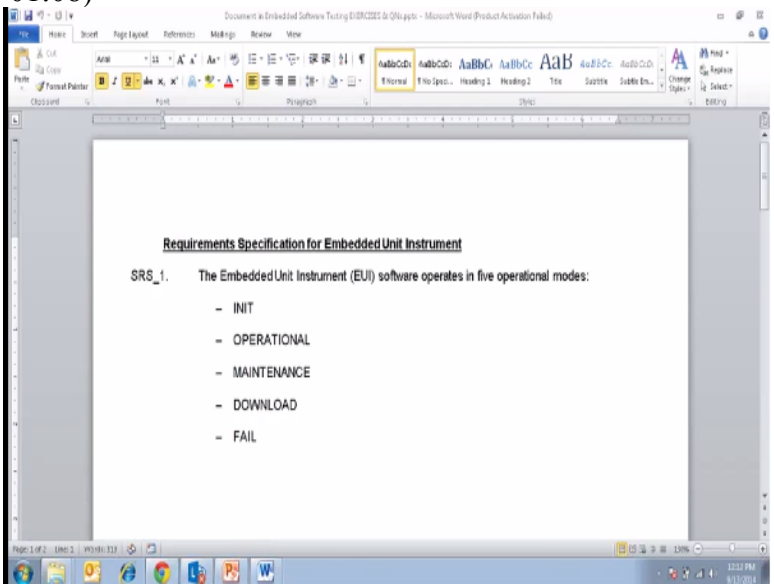

Okay.

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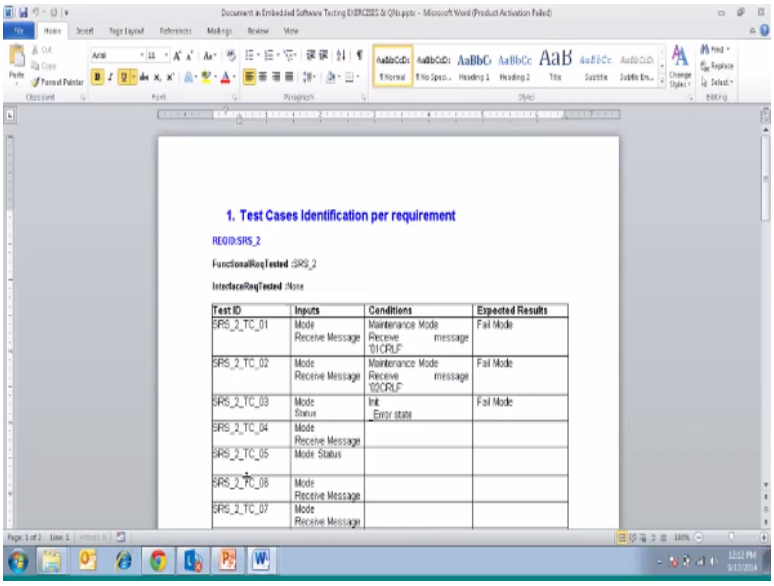

Now we have what we have to do is.
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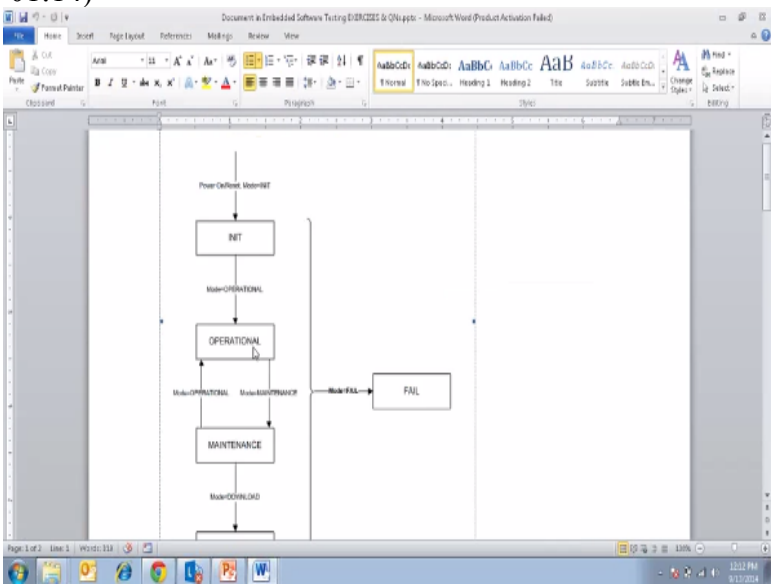

Using a excel sheet we should create a traceability.
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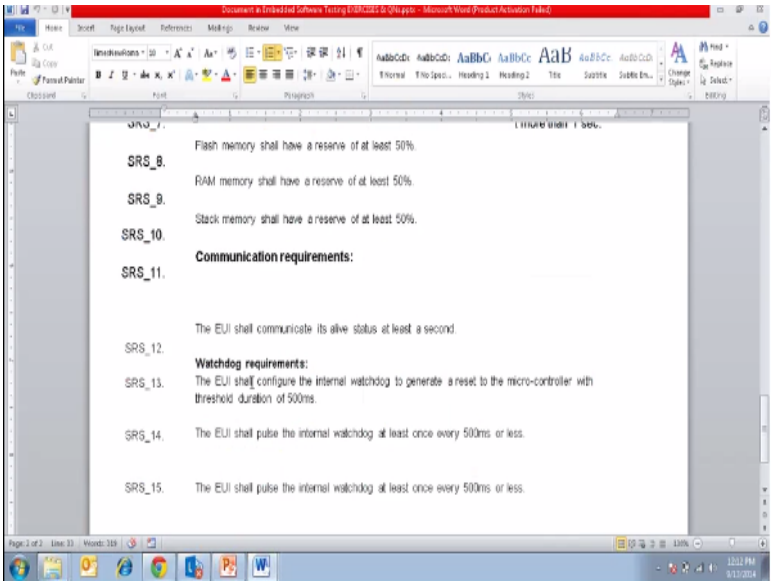

Such that we are covering every aspect, okay.

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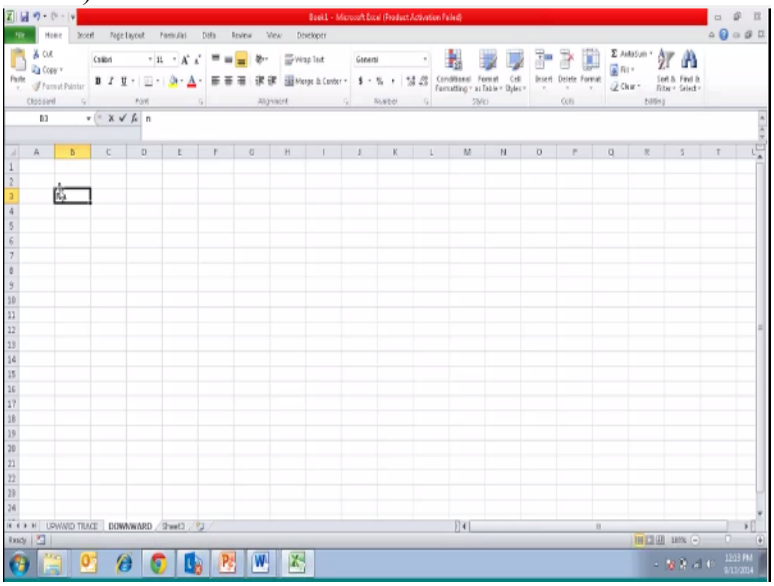

What are the inputs traceability as we said, we need test cases we need requirement similarly other one so we will create upwards, upwards traceability and downward traceability and upward traceability we need test cases to requirements so number, test case requirements let us do this way.

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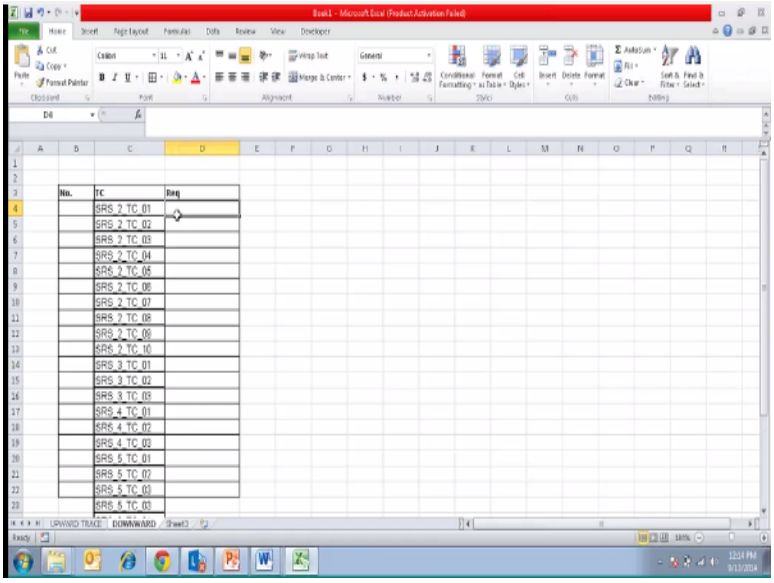

Let try to create few samples and try to identify those things what we have covered okay do now will go with a test case so how many test case we have we go through the test case that test requirements which will come to know okay so we have a SRS 2 TC1, TC2 like this we have a about term so we will copy this, will paste it here next we have small, expect of this case here next one is here, why we are written, similarly We have test cases for net set of things so likewise we are going to make it next one is the requirements okay.

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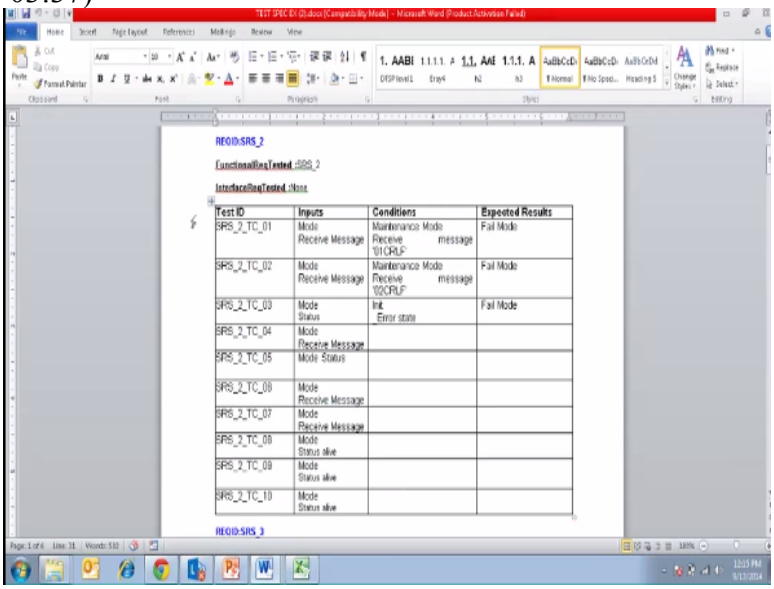

So this test case what we had identified here all for requirement specified so we need to put that so we have a test case 1 to 10 for the 1st are the SRS2 there are all, SRS2 so we have the next set of requirements SRS3.

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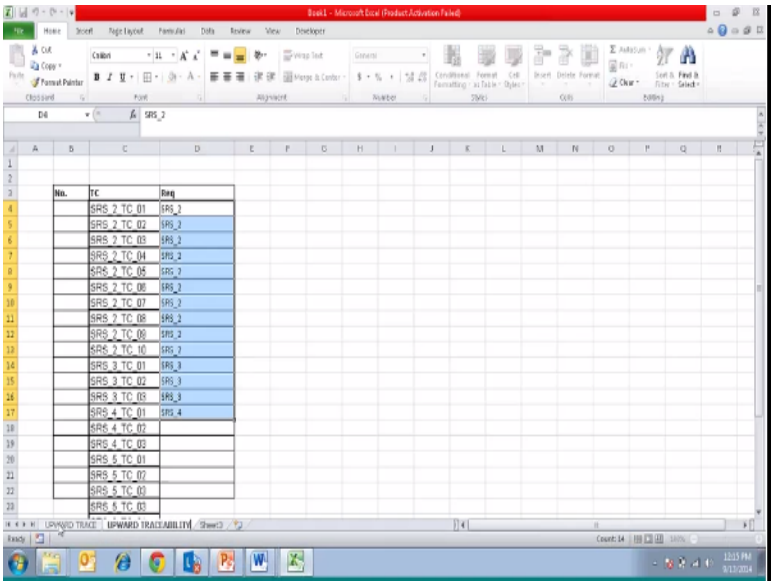

Okay, okay next we have SRS4 okay so by seeing this we know that it is from, okay this is the basically upward, upward traceability other we should try is downward okay.

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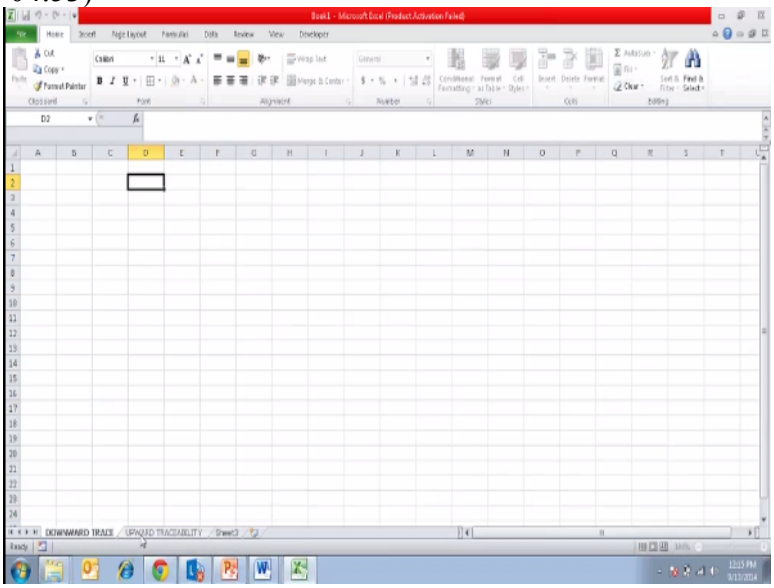

In upwards traceability we try to cover how many test cases are there so what will happen is at the end of this so we can put some formula we precede we need that missing requirements.

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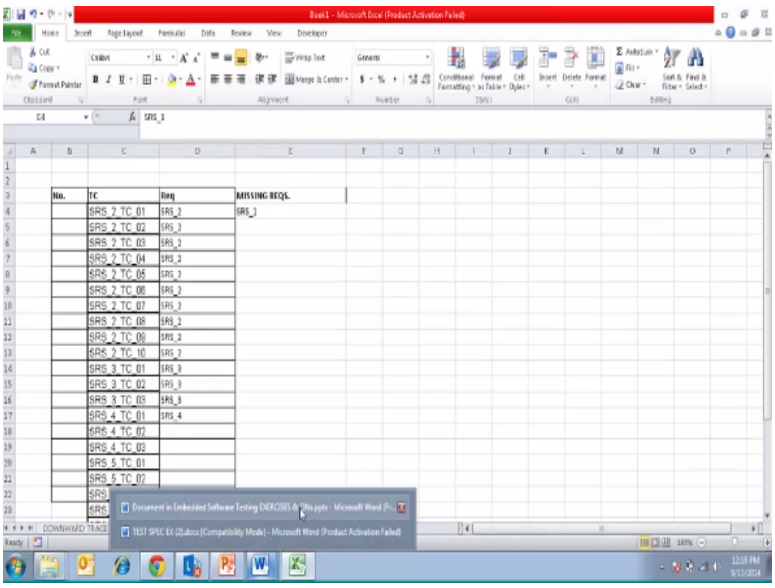

So there are few requirements which an miss like a SRS1 we are not covered okay so what to will happen is we will able to identify what are the requirements that we have missed with this upward traceability right so those requirements with address by adding at new this what this traceability will help basically so 1st one is this actually so what will happen is this requirement we know that this will go in different modes actually.

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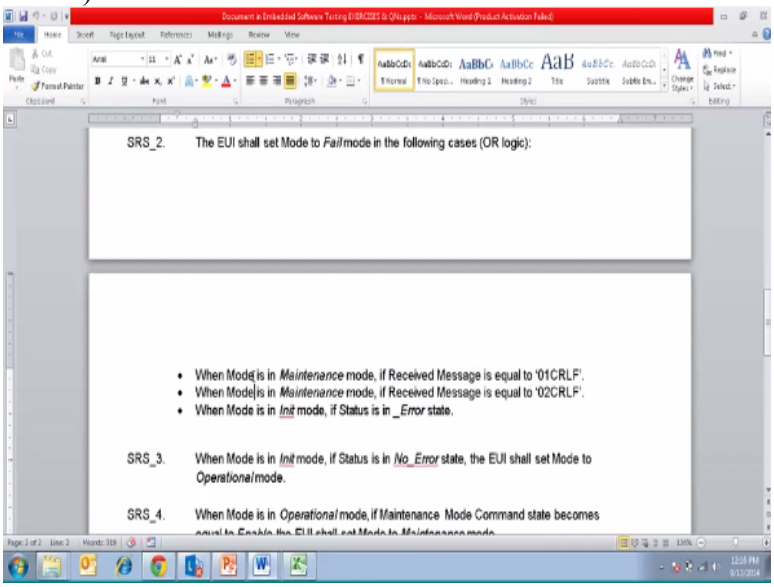

So we need to put.

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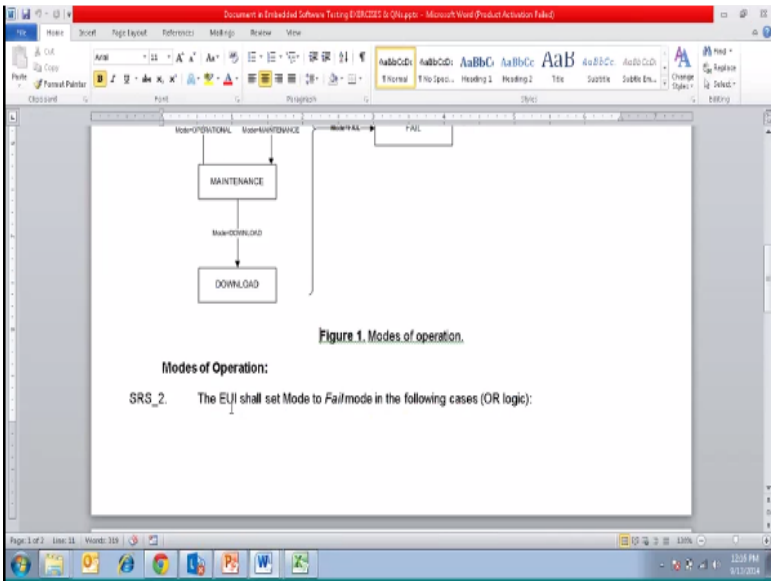

The embedded in the instrumental operation so that.
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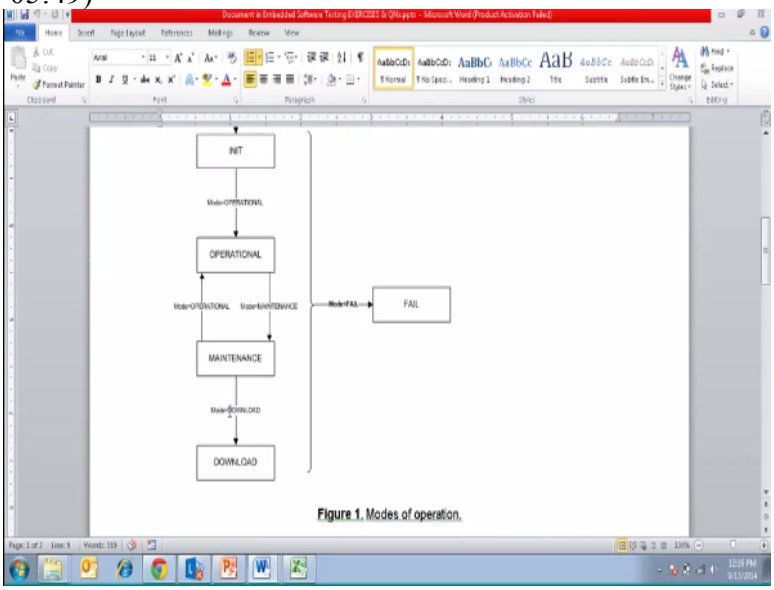

We know operational type of requirements will cover both we need as for up.
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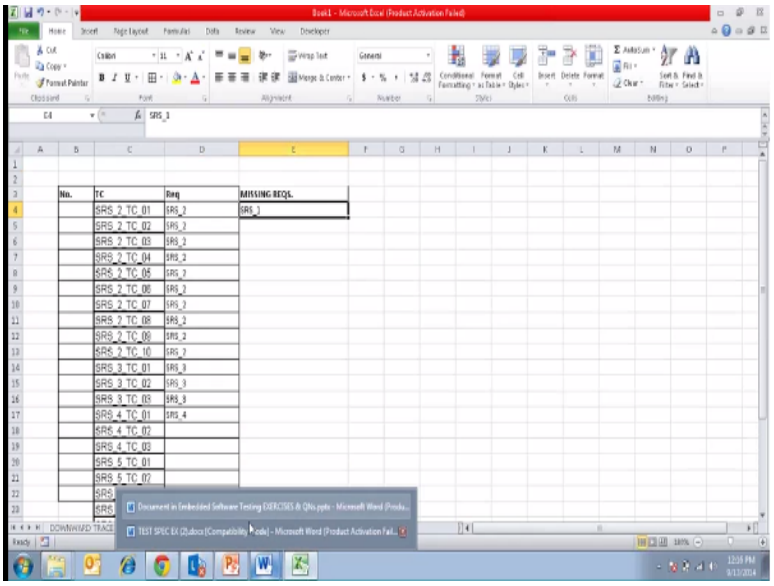

Wherever we have the test case for operational mode type of requirement say
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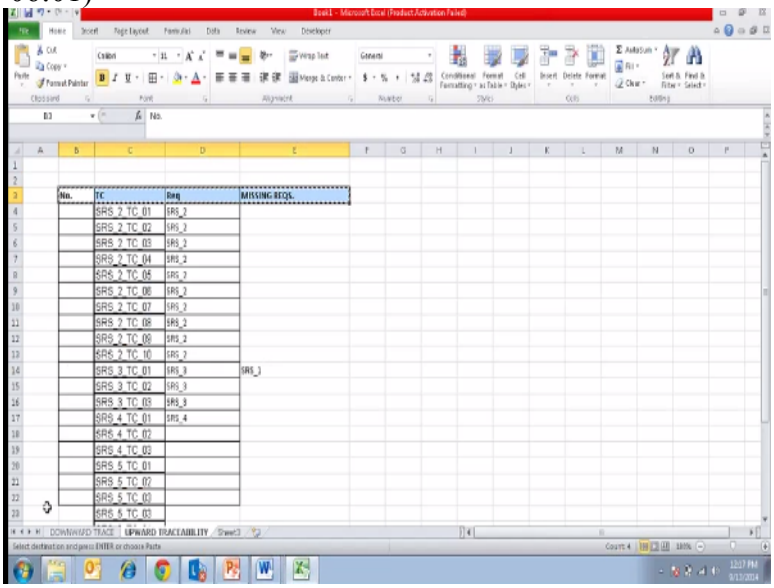

When modes go to operational mode is the 1 suppose this will cover SRS1 along with SRS3 right so it is SRS1 it is cover likewise we are going to have a coverage of this requirements still it is missed we are not able to trace some of the requirements when we need to do some should have analysis is what way I can cover it up whether I can do it with existing test cases are should I do it separately so that way is very important to have a traceability have a coverage of all the requirements from the test case perspective okay.
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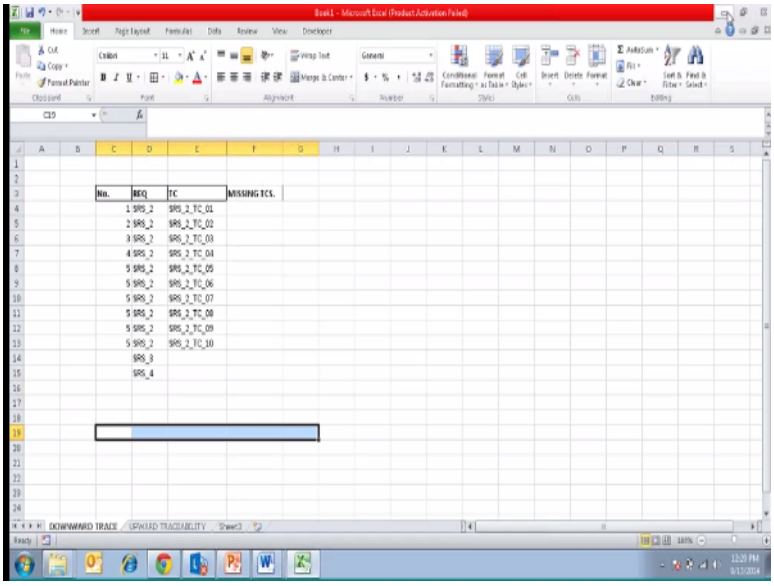

So the next 1 is downwards traceability here what will happen is we start with requirements we go with test cases so what will happen is, so all the requirements 1st it will be listed basically of course we have requirements, please remember that SRS are the incremental but sometime what will happen is over a period it could have been deleted cannot be there so assume that the all the SRS in brought up here and for each of SRS.

We have a test case like in terms of test case id see the 1st 1 we have test case, 1, and this is also SRS2 right, so we have test case 2 SRS same, here the same like this we have 10 test cases for the same requirement, okay so we know that now requirement how we test cases have been draw okay now SRS3, SRS4 likewise we are going to list out test cases so what will happen is there we some test cases.

Which would are missed fro particular SRS so that we are going to tell that as missing test cases which means test cases we are not covered certain requirements this way receiver it will be achieve so the help of this we are going to have upward and down ward traceability we want to create a complete report of how many requirements are the test how many requirements are in terms of, this thing all is will be one of the traceable that is what we do thing traceability basically.

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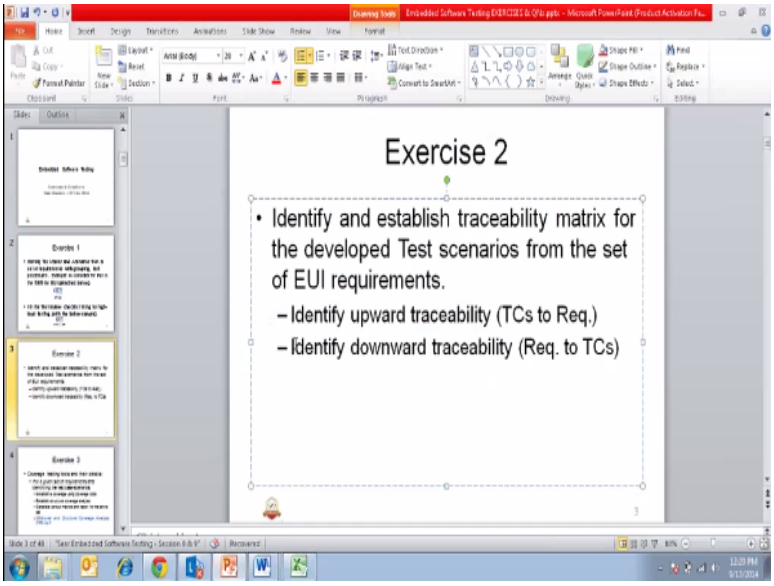

We try to establish traceability and identify the matrix for the developed the scenarios for the set of requirements, okay that is about traceability trade about SRS and creative a test cases.

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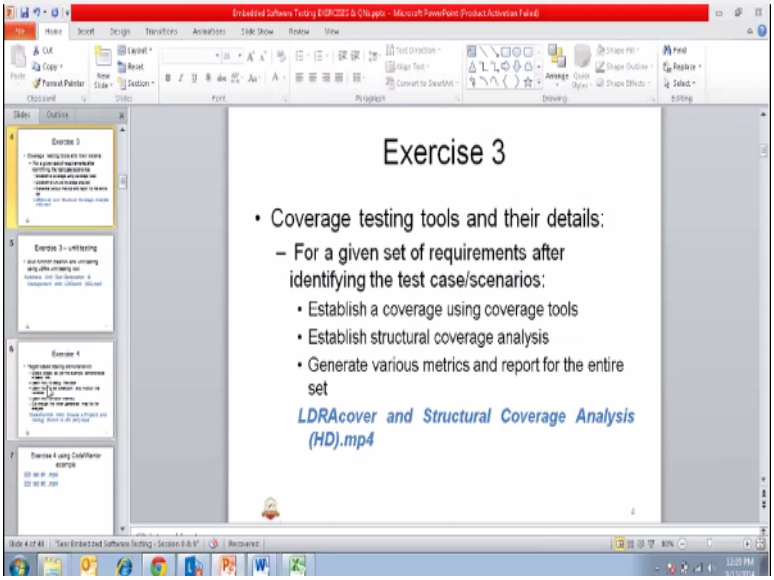

And revise atleast we have seen the net exercise that we have seen about LDRA a cold coverage and structural coverage

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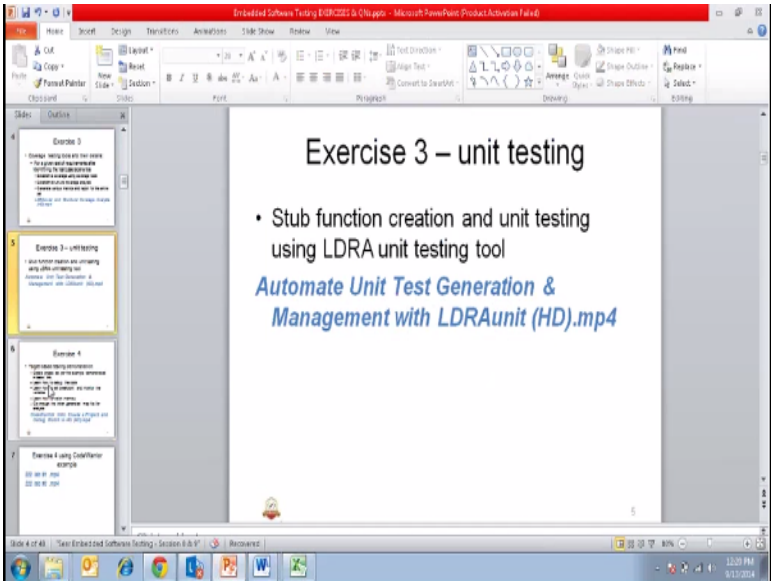

And generation and the management with LDRA unit and example demo we have then we also see about the target debugging

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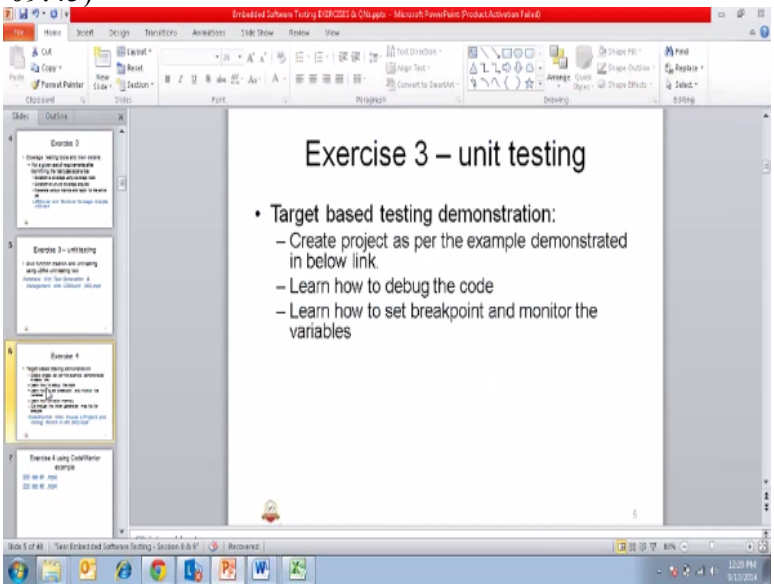
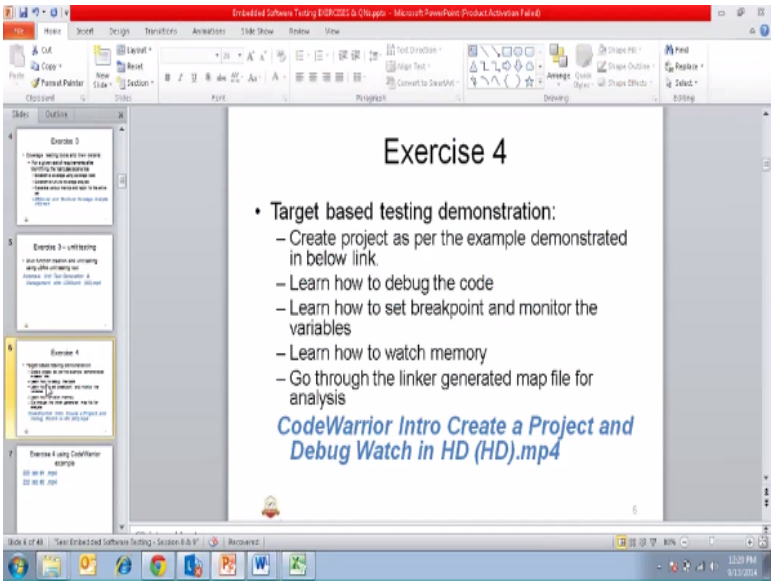


CodeWarrior here



There is a video we also went through and.

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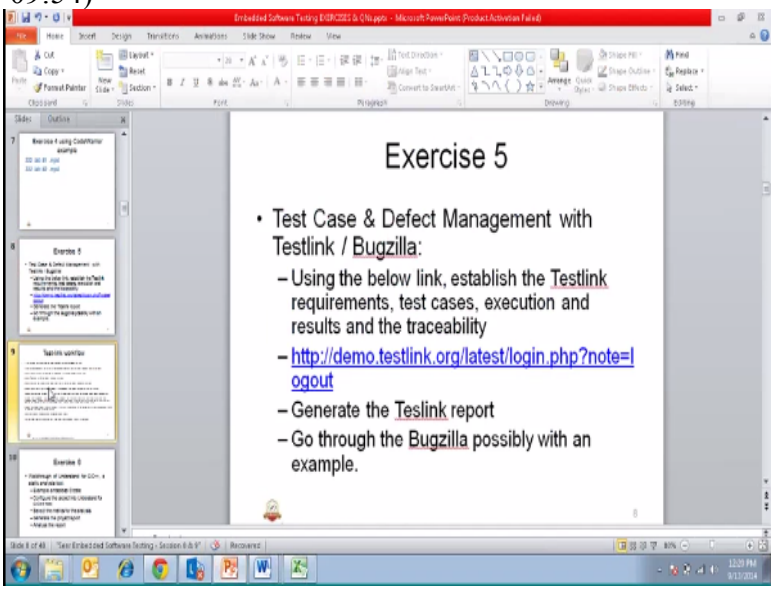

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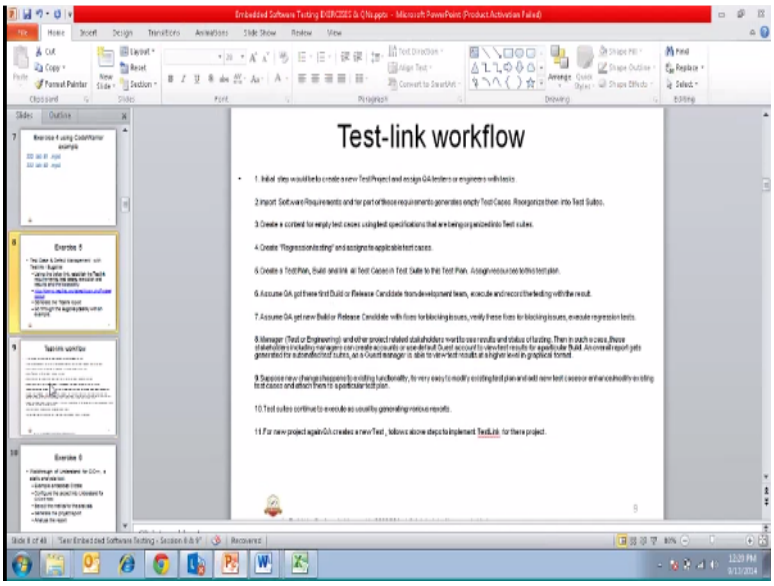

We will try to study a test link how it can be used and, that is another to bugs will is.
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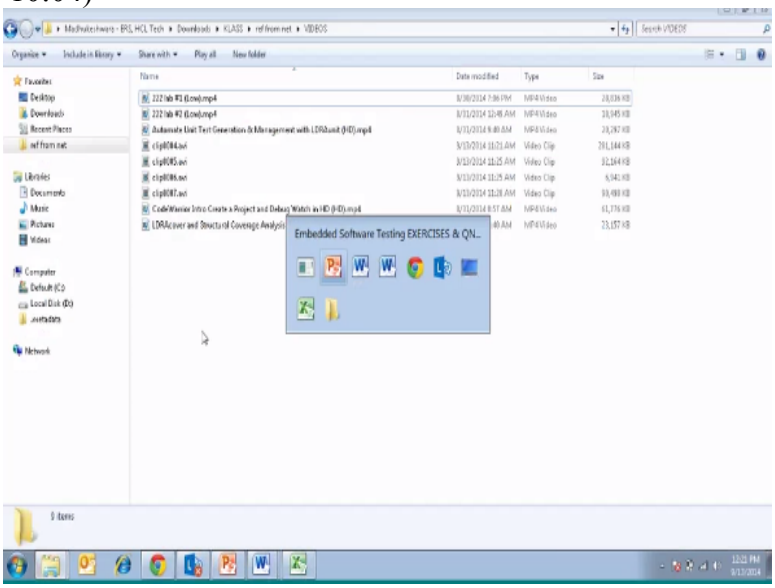

Similar to test link this also can be used so what we do is this a online and test link session we will try to, see that, and login basically we need to create a,
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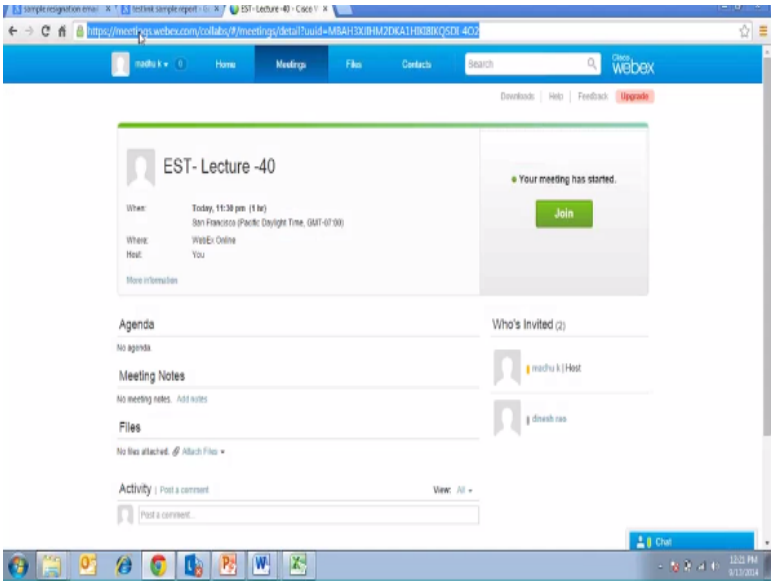

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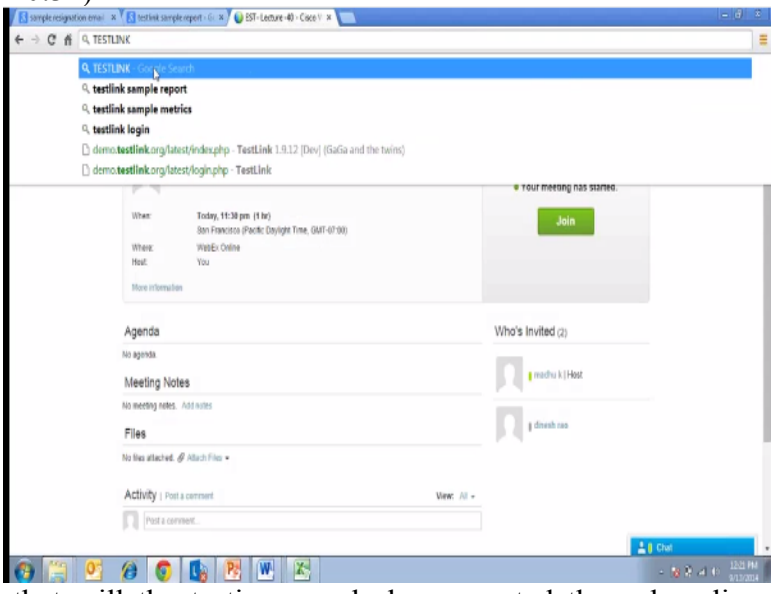

The demo project that will the testing people have created through online we can do so but ideally the project what will happen is this a local server like apache or something so with the help of that we will create all the connections with that a local server and create a individual access with the user id and all.

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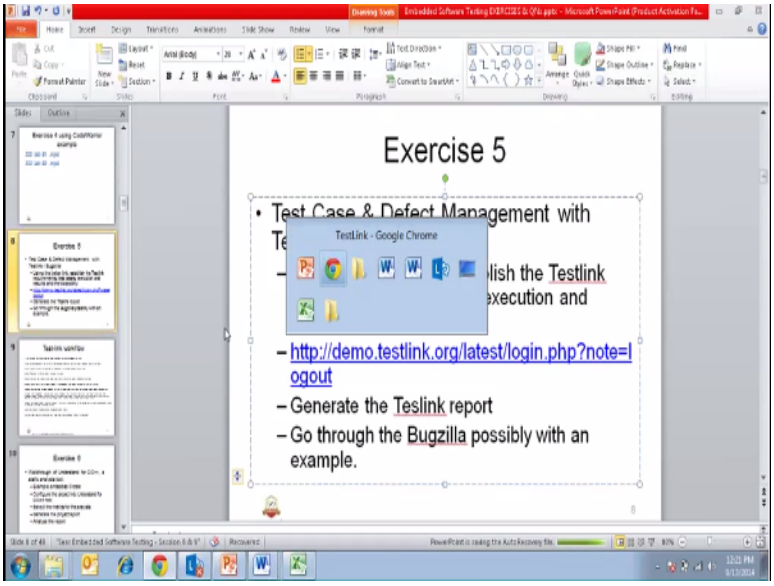

So here the page you can see.
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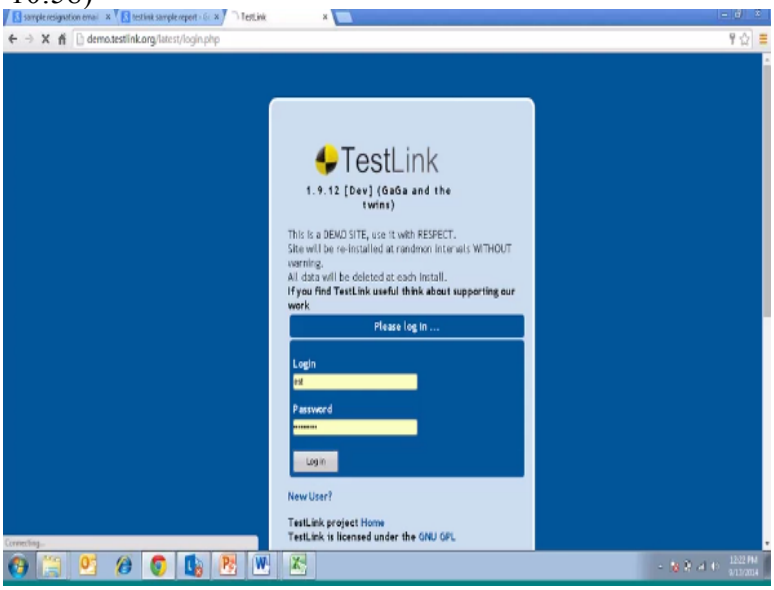

We need to login with the test link.
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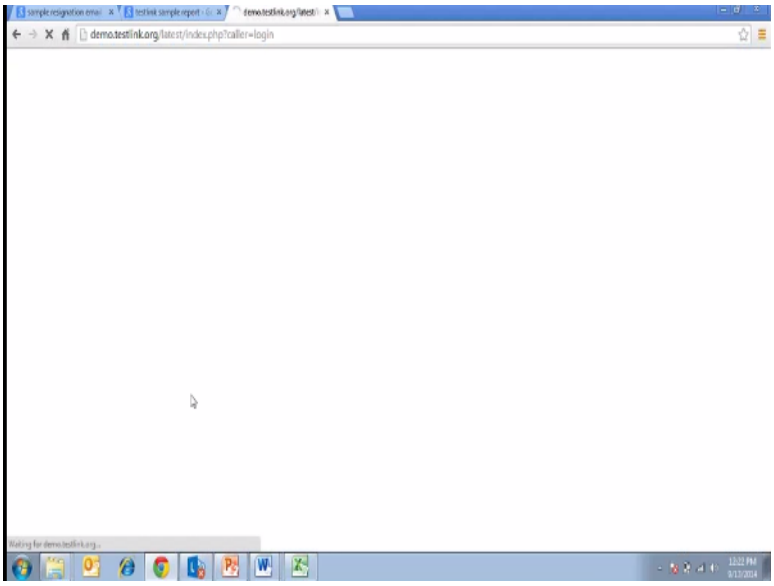

You know that the test link we can use to manage test cases and requirements like excuse the result of the traceability complete report will be done only thing is 1st time we need to enter manually or we can import, from requirement documents such as word or source so that options also there once we have done with adding all those information.

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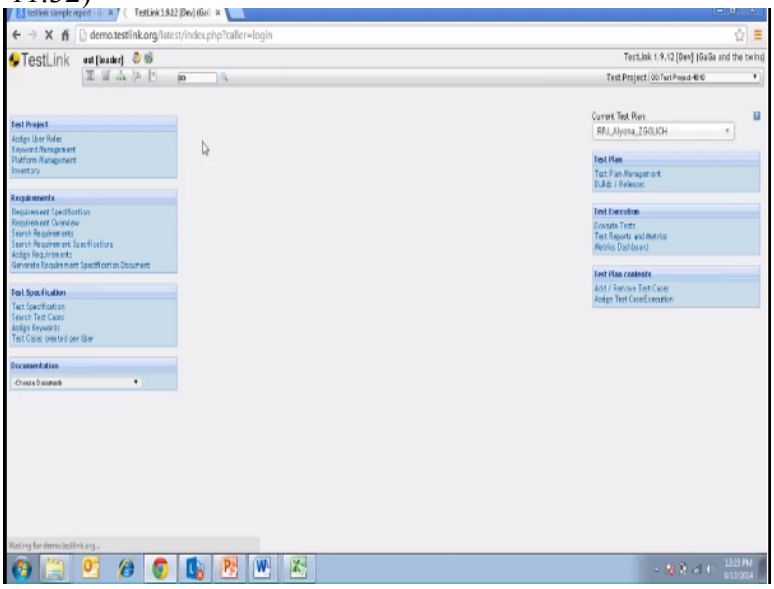

What is the requirements for test management we can generate the test report and similarly the bugs will also can be use those are these steps that we require for test case, okay here we can see the basic window of a test link it is a sample it is available online for understanding of how it is used we can use this so for a test project we have users like admin ,tester and test manager etc quality poles it is up to us how we want to define different roles of the project so we can assign the user roles existing once or we can add users if you are a admin.

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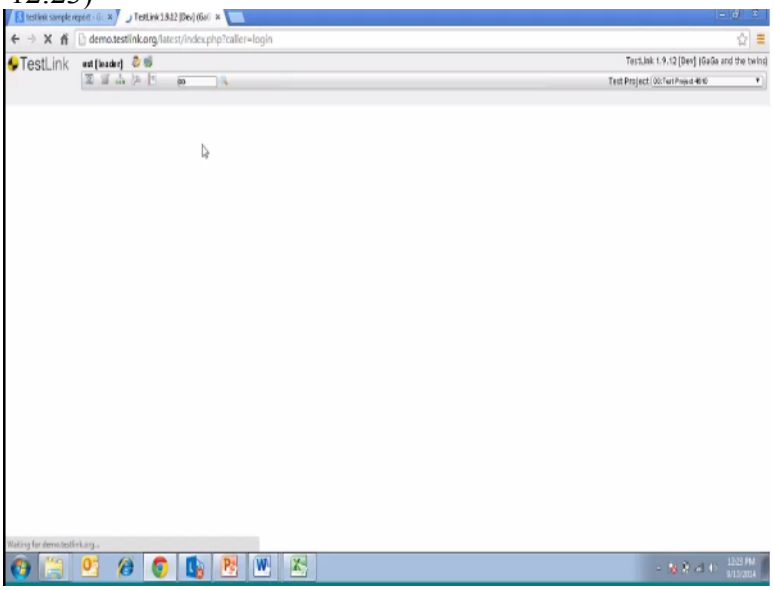

In terms of test case holders basically we can see example here there are number of users here.
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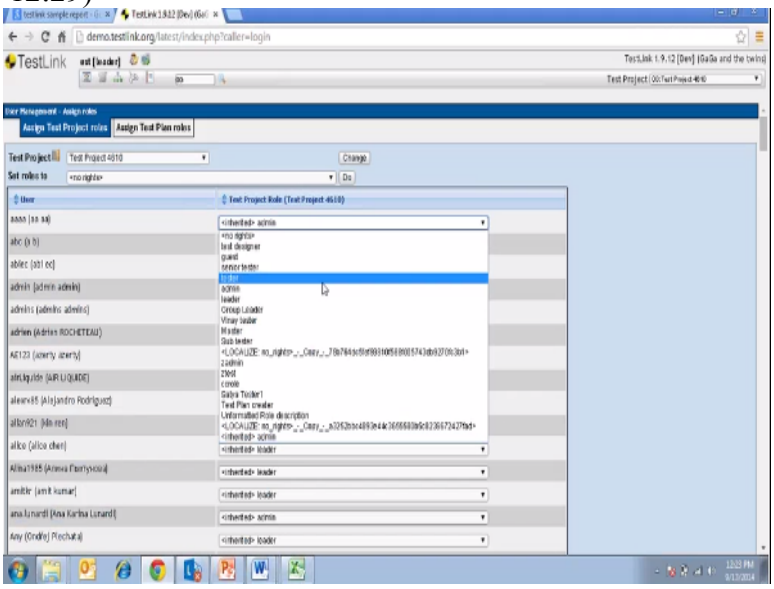

Up to you how we want to add them so the different roles I mean created this also we can create we can do what this is an example that we have created so this is admin, tester , leader and all that.
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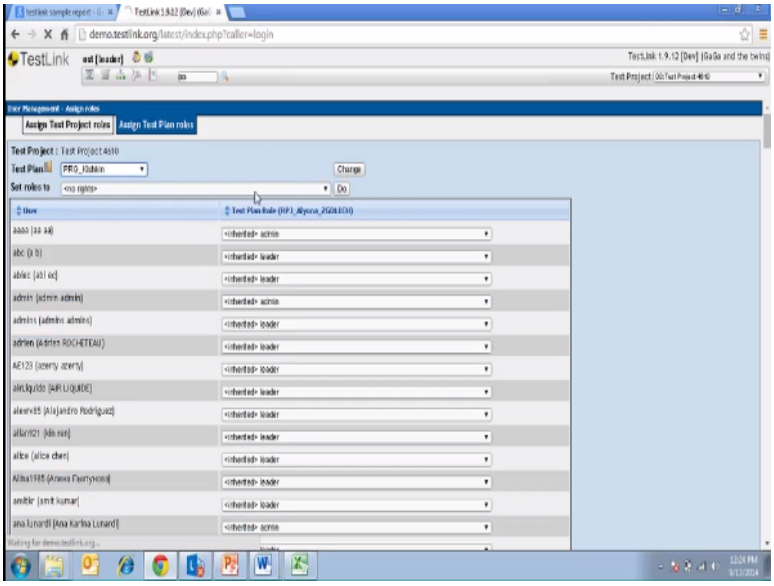

So based on the need of the project we can use it in term, the roles over all assign that also we can do with this test designer let us see so this are the people who were having test this on hold okay so that they have a access to have a test cases design and added into this part so that is about test the project role the next one is test plan and roles similarly test plan also we can have it the example project let be create, we can set the roles for doing the test plan.

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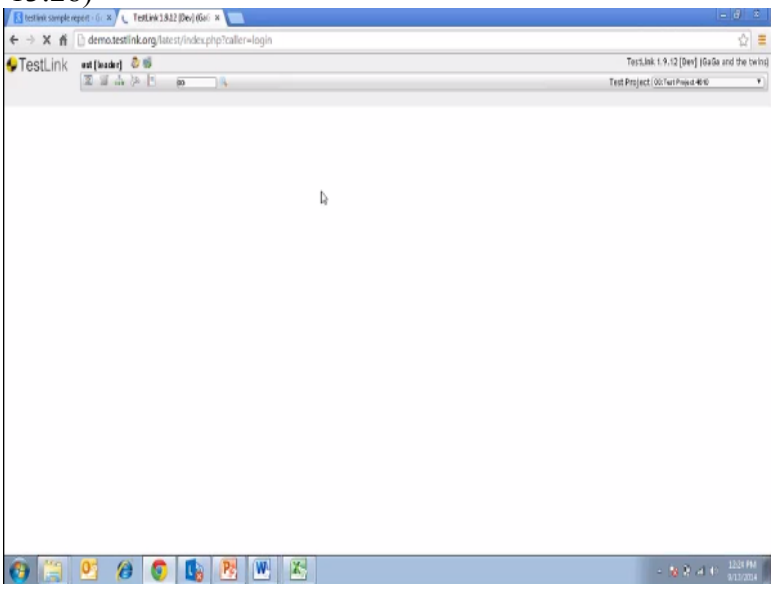

So we have a test plan as well as test design test design is nothing but the test cases.

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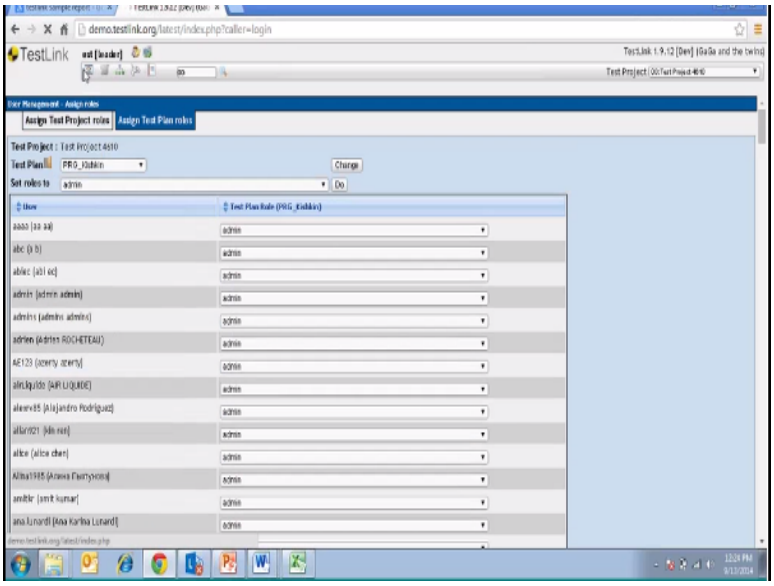

Or test specification creation, so here also we can find whose is admin?, to this project just a example usually one admin will to the who will maintain adding the user deleting and, maintaining the reports all that global like what we are seen in one of for a theatrical session of software's configuration management like see 0 and all that similar to that exists okay, so similar we can have a the different test.