In this lecture I'm going to show you how to test methods that raise an event. So here in our log method, once the event is stored in our storage, you raise this event, error, log. We can see error log is an event of type event handler of guid. If all of this sounds foreign to you, you're going to need to watch my C# MS course, because there I have covered events and delegates in detail. So basically here we are raising this ErrorLogged event, and as an even argument we are sending a new guid. Perhaps this is the ID that is generated by our storage.

So to test the log method we call it, give it a valid error message, and verify that it raises the ErrorLogged event with a new guid, okay? So, back in our test class, another test, public void Log ValidError, that's the scenario. You should RaiseErrorLogged Event. Okay?

So, I'm going to create a logger object, ErrorLogger, now how can we verify that this object raises an event. It's actually very simple. Before acting, you are going to subscribe to that event. So, if the log method raises the event we'll be notified. Now, to subscribe to this event, we write logger.ErrorLogged. This is our event, right? We subscribe by adding a new handler we use a lambda expression here, sender and args. So these are our parameters, sender is the source of the event, and args is the event argument. So, these parameters go to and here's the body of a function.

So, this lambda expression represents our event handler. When the ErrorLogged event is raised, this function will be executed. So in the body

of this function, I can get the event argument, in this case event ID. So, I'm going to define a variable called id, and initially set it

to an empty guid. Now, when the ErrorLogged event is raised, I'm going to set ID, to args. Which is the id of this error.

Now, we act, so logger.log A filing our assertion is very simple. If this event is raised, this function is executed, and that means ID will no longer be an empty guid. It will be the value that comes with the event, so we assert, that id is not equal to Guid.Empty. Let's run this test.

Okay, it passed beautiful, but once again I want to make sure that we are testing the right thing. So back to our ErrorLogger Class, this is the line that is responsible for making that test pass. So I'm going to comment it out, and see if our test still passes or not. Back here, let's rerun this test, Okay, it failed, so we are testing the right thing, now, let's bring this back in. So, let's recap, to test the method that raises an event, all we have to do is to subscribe to that event in your test method, before acting. In your event handler you're going to get some value. In this case, we are getting a new guid.

So, if this event is raised, then, our id should no longer be an empty guid after acting. And that's why we have a simple assertion to make sure ID is not an empty guid.