Test practice

September 2019

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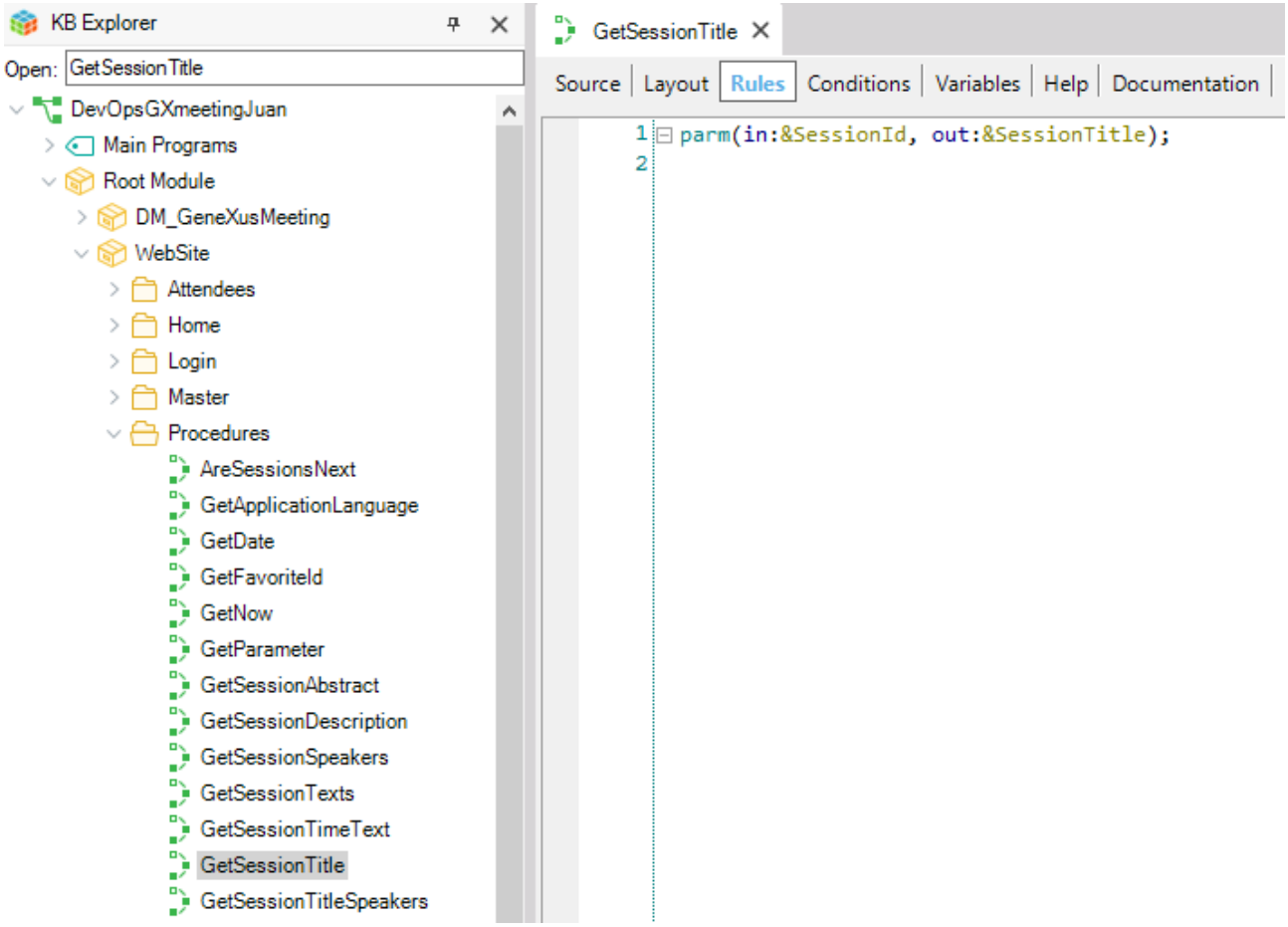
GOAL

After we have configured the build process, we will configure the testing process of the application. For that, we will create a unit test and we will add a task in Jenkins by which the unit test will be executed unattended.

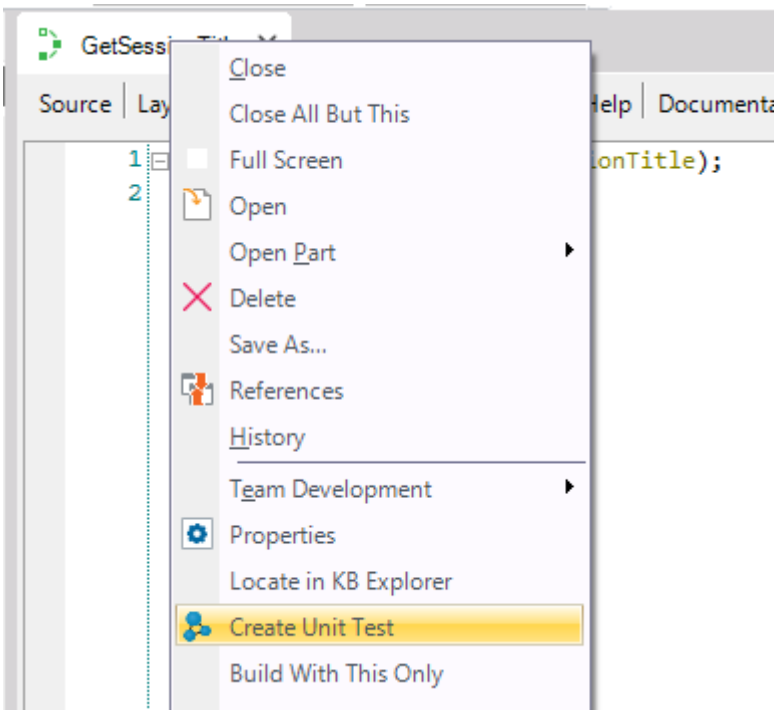
So, we will add steps in the configuration of our Jenkins project in which we have been working using DevOps.

UNIT TEST CREATION

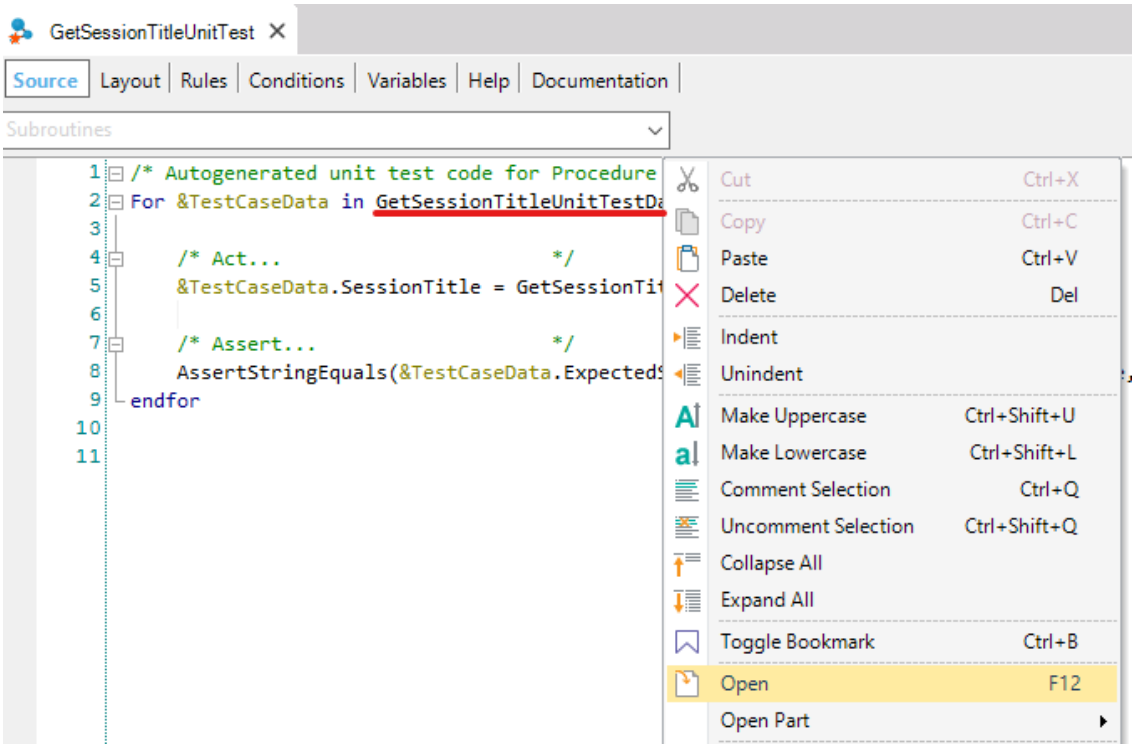
Create a unit test for “GetSessionTitle” procedure, which receives an input a parameter called “&SessionId” and returns as output a parameter called “&SessionTitle”.



- Right click on the object and select "*Create Unit Test*".



- Open the object "*GetSessionTitleUnitTestData*".

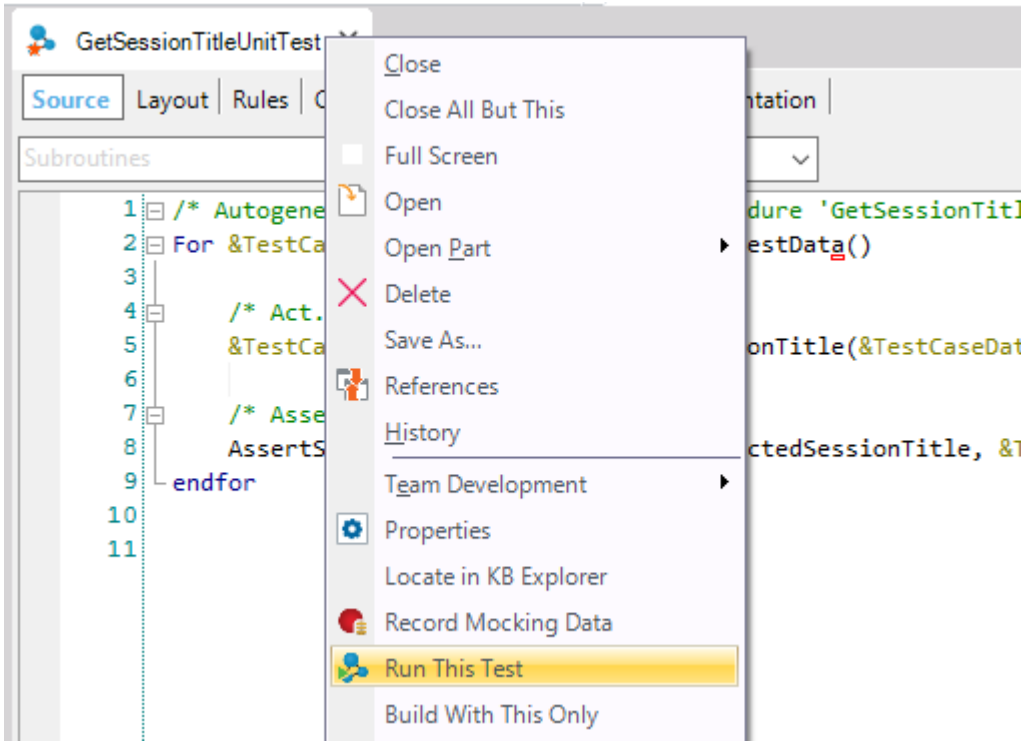


- Copy the test cases data into the Data Provider.

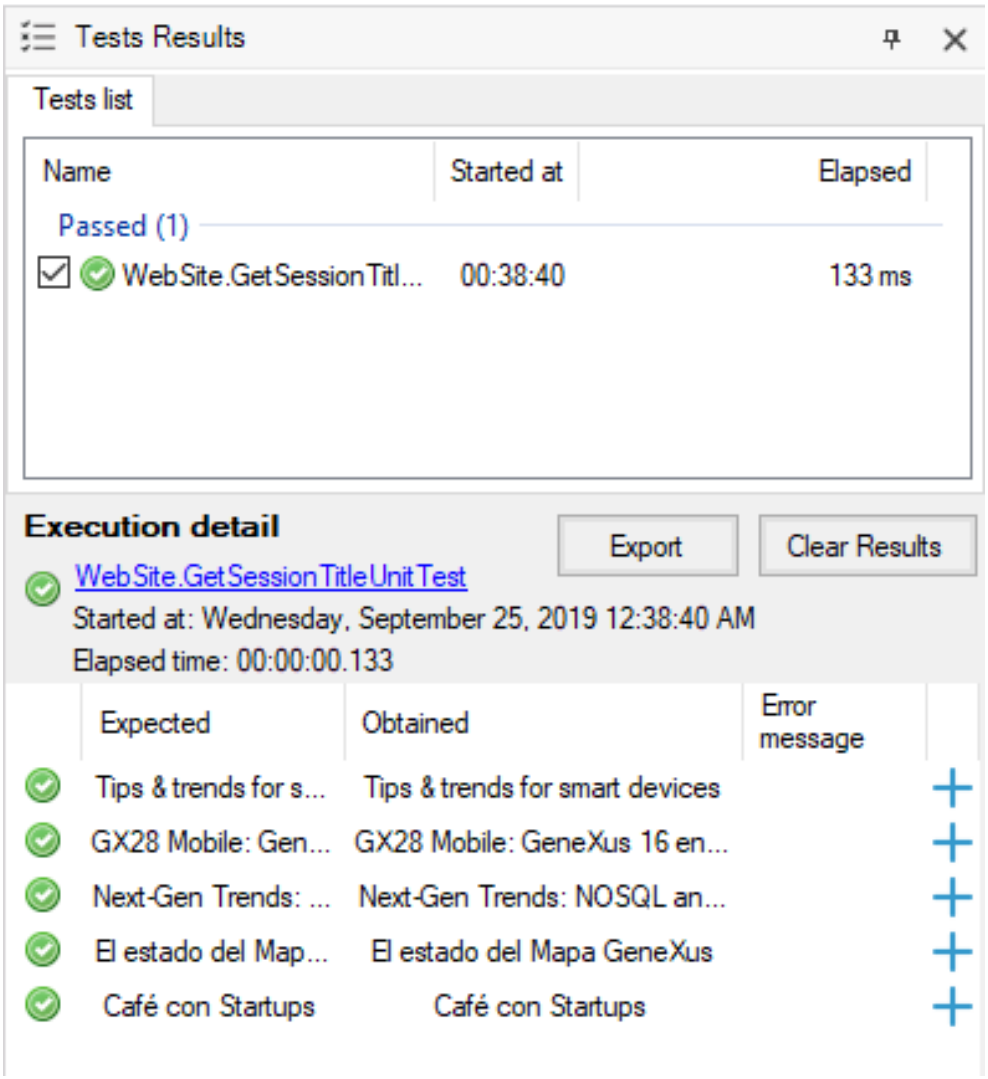
```
GetSessionTitleUnitTestSDT
{
        SessionId = 4448
        ExpectedSessionTitle = "Tips & trends for smart devices"
        ErrorMsgSessionTitle = ""
}

GetSessionTitleUnitTestSDT
{
        SessionId = 4619
        ExpectedSessionTitle = "GX28 Mobile: GeneXus 16 en su máxima potencia"
        ErrorMsgSessionTitle = ""
}

GetSessionTitleUnitTestSDT
{
        SessionId = 4597
        ExpectedSessionTitle = "Next-Gen Trends: NOSQL and Serverless Apps in the Cloud"
        ErrorMsgSessionTitle = ""
}

GetSessionTitleUnitTestSDT
{
        SessionId = 4568
        ExpectedSessionTitle = "El estado del Mapa GeneXus"
        ErrorMsgSessionTitle = ""
}
```

```
GetSessionTitleUnitTestSDT
{
        SessionId = 4591
        ExpectedSessionTitle = "Café con Startups"
        ErrorMsgSessionTitle = ""
}
```

- Right click over the test "*GetSessionTitleUnitTest*" and select the "*Run This Test*" option.



- In "Tests results" panel, you can see the results obtained for the execution.



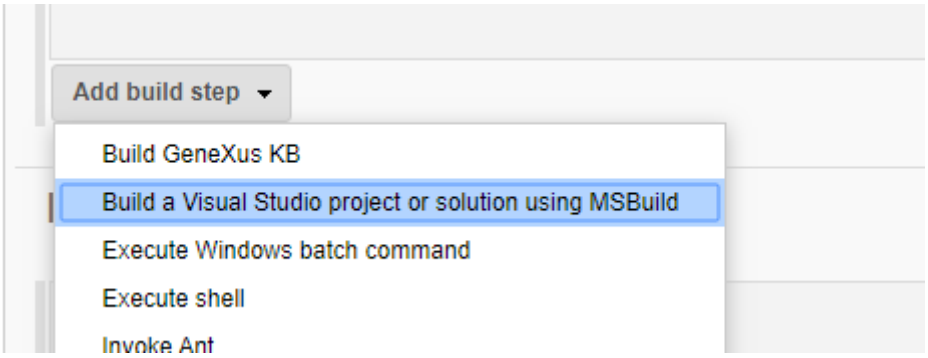
JENKINS CONFIGURATION

Now, we will configure the test step in Jenkins. This step will execute the unit test that we've just created.

For this, it is necessary to add a step in our pipeline. Follow the next points to achieve it:

1- ADD STEP FOR TEST EXECUTION

In the MsBuild "*Integration*" project, select the "*Configure*" menu, go to the "*Build*" section of the project tabs and select the "*Add build step*" option of type "*Build a Visual Studio project or solution using MsBuild*".



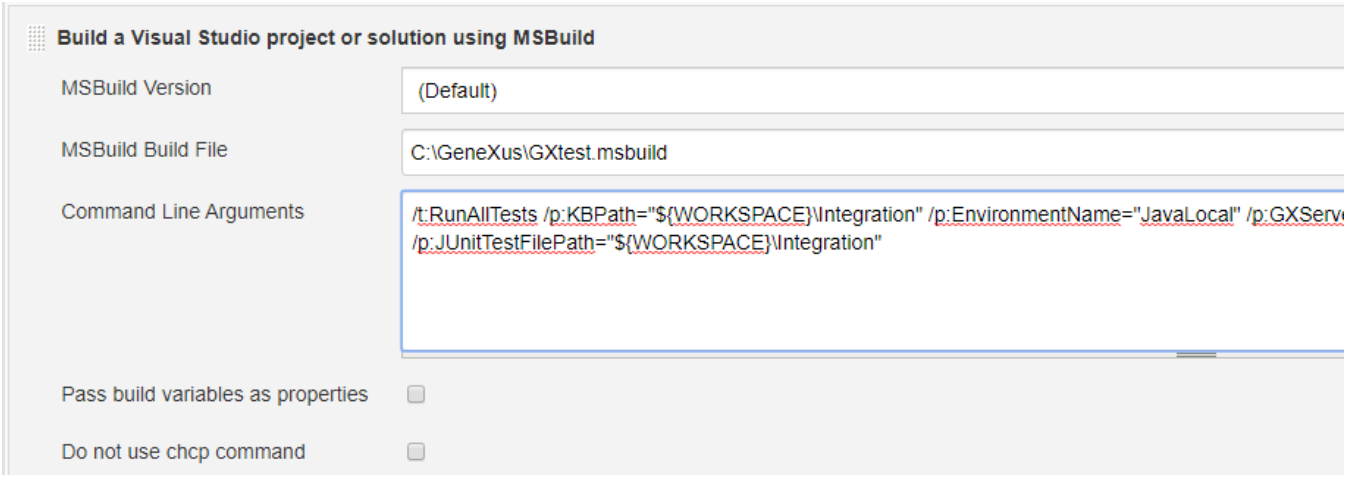
Complete with the following data:

MSBuild Build File

"C:\GeneXus\GXtest.msbuild"

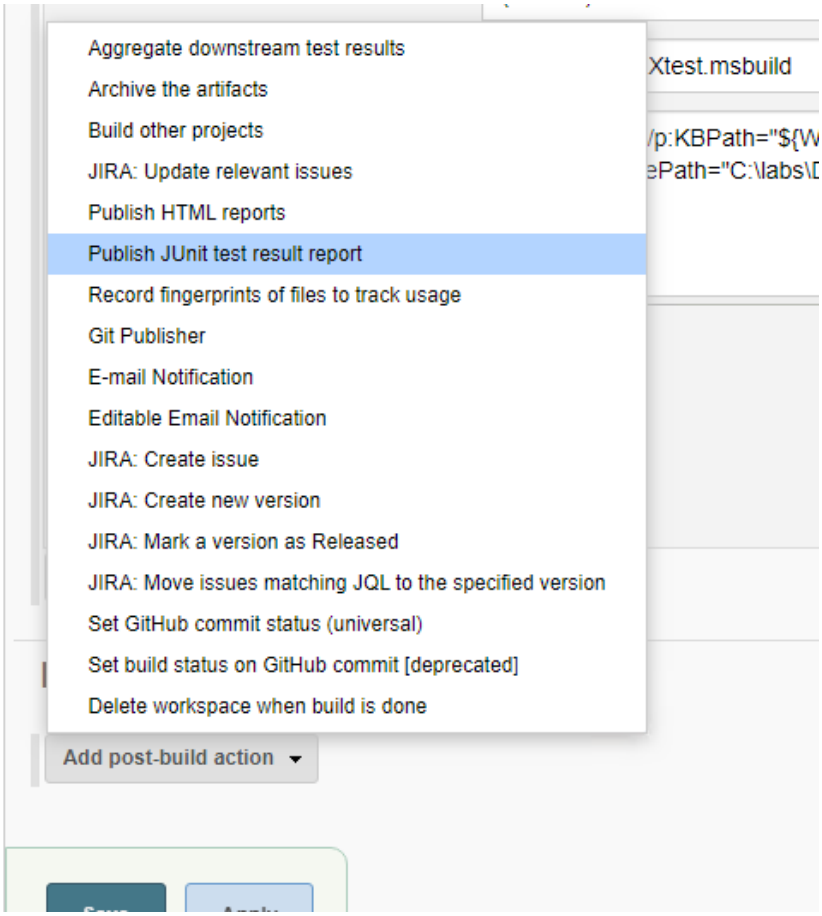
Command Line Arguments

/t:RunAllTests /p:KBPath="${WORKSPACE}\Integration" /p:EnvironmentName="JavaLocal" /p:GXServerUser="local\builder" /p:GXServerPass="builder123" /p:JUnitTestFilePath="${WORKSPACE}\Integration"

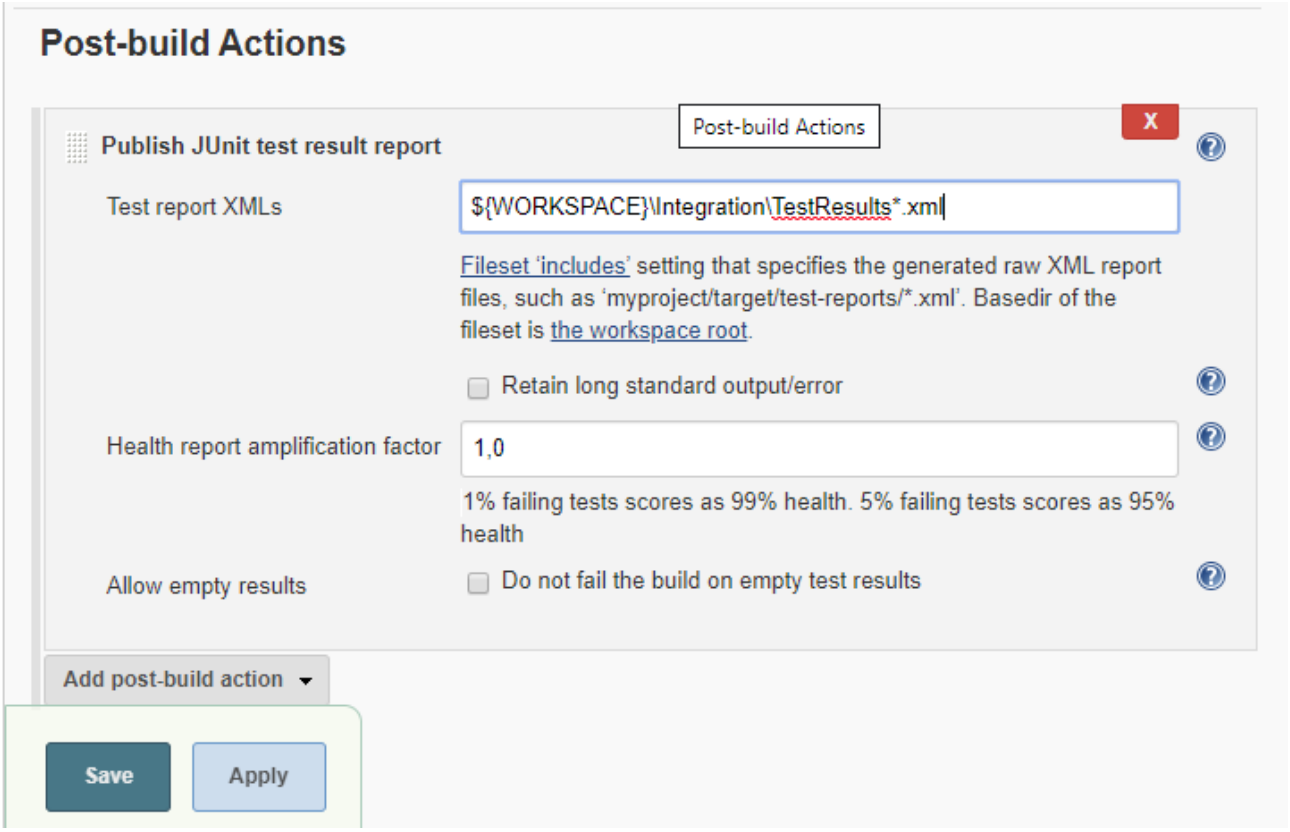


2- ADD STEP FOR PUBLISHING RESULTS

Go to section "*Post-build Actions*", expand "*Add post-build action*" and then select "*Publish JUnit test result report*"



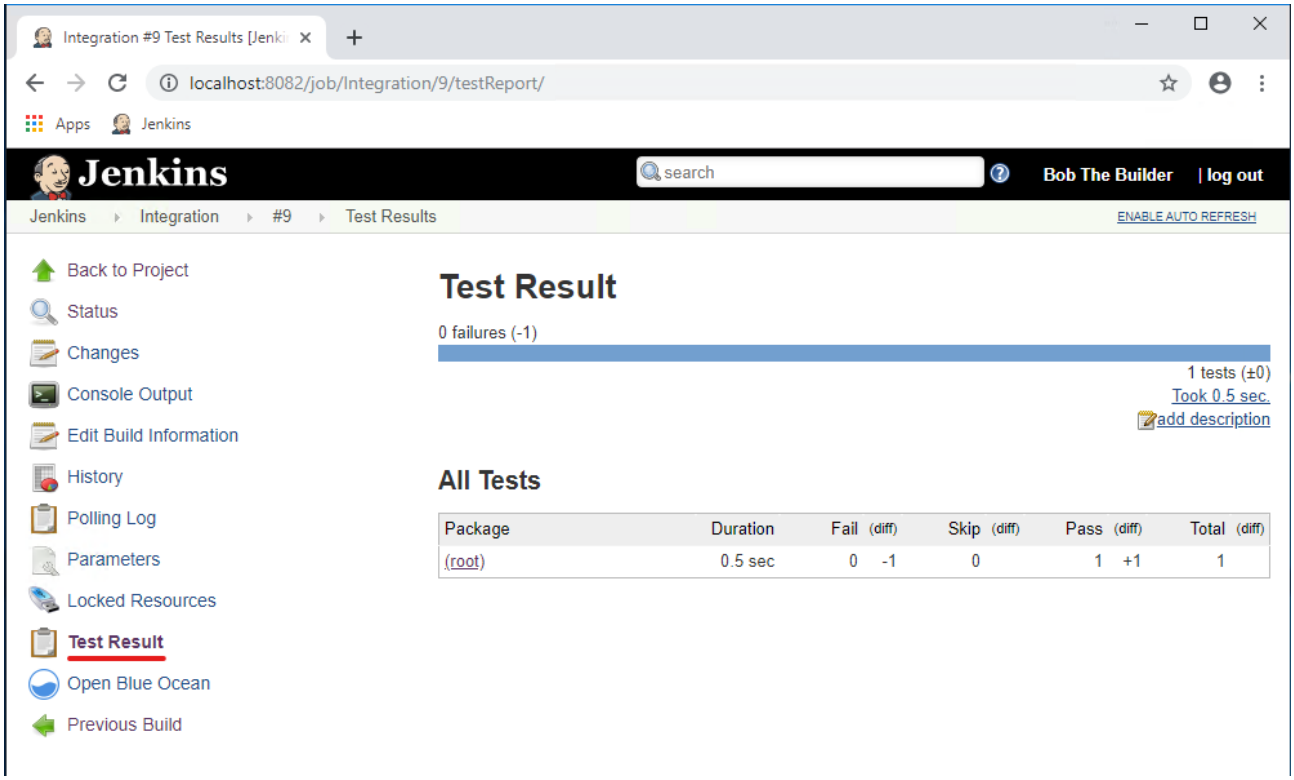
Fill with value "*${WORKSPACE}\Integration\TestResults*.xml*" the field "*Test report XMLs*" and save changes.



3- COMMIT TESTS AND SEE TEST RESULTS

Finally, commit the unit test and view the results of the pipeline execution.

When pipeline execution is finished, test results can be viewed in section "*Test Result*" inside the corresponding pipeline menu.



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GXtest