

FUSEPLM -GUIDELINES FOR AUTOMATION TESTING

Initial Requirement:

When FusePlm project was started client were sent a Test case Documents to understanding the flow of Manual testing.We have done the Automation testing based on test cases only.Also we wrote the test scripts based on the TestNG Framework.It's very helpful to do the Data Provider,Grouping,Report Generation.

Initially,I had discussed with client to understand the domain knowledge and the application workflow.Actually this project under **Product Lifecycle Management** domain.So they gave the idea's about the workflow of all the Module.For the first release i did the automation test scripts only based on the flow of application for Each and Every modules and it's not dependent on test cases.Because modules are dependent on the previous modules. [Refer the Image](#)

```
1 package fusepackage;
2 import java.io.IOException;
16
17 public class FuseSprint extends WrapperClass
18 {
20 public void login() throws IOException, InterruptedException {}
41 public void createpart(String Part,String Category,String Revision)throws IOException, InterruptedException {}
59 public void incrementalrevcheck(String Note) throws IOException, InterruptedException{}
74 public void basicinfo(String Des,String Unitmeasure,String Prototype,String Projname,String Tags) throws IOException, InterruptedException{}
92 public void changestatus() throws IOException,InterruptedException{}
103 public void incrementalrev(String Note) throws InterruptedException, IOException{}
118 public void additionalinfo() throws IOException,InterruptedException{}
124 public void attachments() throws InterruptedException, IOException{}
147 public void sourcing(String Manfname,String Manfpnum,String ManfDesc,String Manfcost,String mcurrency,String mapproved,String mavailable,String Supp
211 public void billofmaterial(String partnumber,String location,String ref,String quantity,String bomnote) throws IOException, InterruptedException{}
242 @Test(priority = 10,enabled = true)
243 public void whereused() throws InterruptedException,IOException{
244     //Where-Used
245     clickByXpath("/html/body/div[1]/div/div/md-content/div[1]/div/div[2]/md-tabs/md-tabs-wrapper/md-tabs-canvas/md-pagination-wrapper/md-tab-item[6
246     Thread.sleep(3000);
247     clickByXpath("/html/body/div[1]/div/div/md-content/div[1]/div/div[2]/md-tabs/md-tabs-content-wrapper/md-tab-content[6]/div/md-content/div/div/di
248     Thread.sleep(3000);
249 }
250 @Test(enabled = true,dataProvider = "BOMwhereused",dependsOnMethods = {"whereused"})
251 public void BOMwhereused(String partnumber) throws InterruptedException, IOException{
252     Thread.sleep(3000);
253     gettitlenumtrim("/html/body/div[1]/div/div/md-content/div[1]/div/div[1]/div/div[1]/div[1]/span[1]/strong");
254     //Bill of Material to the Part from where used
255     Searchelement("/html/body/div[1]/div/div/md-content/div[1]/div/div[2]/md-tabs/md-tabs-wrapper/md-tabs-canvas/md-pagination-wrapper/md-tab-item[5]/sp
256     if (searchElement != null)
257     {
258         searchElement.click();
259         Thread.sleep(3000);
260     }
261 }
```

So Finally we got a Test Results based on these modules.[Refer this Image](#)

Test results

1 suite, 14 failed tests

All suites	
<div style="background-color: #ffc107; padding: 5px; margin-bottom: 5px;">Suite</div> <hr/> Info <ul style="list-style-type: none"> C:\Users\Lakshmanan.S\Desktop\june 22\check/check2\sel-auto-testing-master (5)\sel-auto-testing-master testing.xml 1 test 0 groups Times Reporter output Ignored methods Chronological view <hr/> Results <ul style="list-style-type: none"> 100 methods, 14 failed, 86 passed Failed methods (hide) <ul style="list-style-type: none"> attachments billofmaterial(10045, Chennai, test, 4, testBom) logout partedit(Changed Des) parteditattachments parteditoutsourcing(u.Man.name, u.123456, u.Man.Desc, u.123456, RMD, No, Yes, u.Sup.name, u.123456, u.Man.Name, u.123445...) pncard(PM approval one, PM approval two, 08/30/2017, High, Approval3, balaji, 07/25/2017, 08/25/2017, PM ap...) proattachments producteditattachments producteditoutsourcing(u.Man.name, u.123456, u.Man.Desc, u.123456, EUR, No, Yes, u.Sup.name, u.123456, u.Man.Name, u.123445...) prosourcing(Man.name, 123456, Man.Desc, 123456, CAD, Yes, No, Sup.name, 123456, ManName, 1234456, Sup.Desc, 	<div style="background-color: #f8d7da; padding: 5px; margin-bottom: 5px;"> ✖ fusepackage.FuseBoardCase </div> <pre> partedit (Changed Des) java.lang.NullPointerException at fusepackage.FuseBoardCase.partedit(FuseBoardCase.java:480) ... Removed 23 stack frames </pre> <hr/> <div style="background-color: #f8d7da; padding: 5px; margin-bottom: 5px;"> ✖ fusepackage.FuseSprint </div> <pre> attachments java.lang.NullPointerException at fusepackage.FuseSprint.attachments(FuseSprint.java:128) ... Removed 23 stack frames </pre> <hr/> <pre> billofmaterial (10045, Chennai, test, 4, testBom) org.openga.selenium.WebDriverException: unknown error: Element ... is not clickable at point (814, 169) (Session info: chrome=58.0.3029.110) (Driver info: chromedriver=2.29.461591 (62ebf09871772160f391d75e589dc567915b233),platform=Windows NT 6.3.9600 x86_64) (WARNING: The command duration or timeout: 99 milliseconds Build info: version: '2.53.0', revision: '35ae25b', time: '2016-03-15 16:57:40' System info: host: 'AZU-DESK-019', ip: '192.168.1.220', os.name: 'Windows 8.1', os.arch: 'amd64', os.version: '6.3', java.version: '1.8.0_102' Driver info: org.openga.selenium.chrome.ChromeDriver Capabilities [{applicationCacheEnabled=false, rotatable=false, mobileEmulationEnabled=false, networkConnectionEnabled=false, chrome=67.0.3497.250}] Session ID: 16ce5b0feb7c883edc0bed4a265dbf96 at org.openga.selenium.remote.ErrorHandler.createThrowable(ErrorHandler.java:206) at org.openga.selenium.remote.ErrorHandler.throwIfResponseFailed(ErrorHandler.java:158) at org.openga.selenium.remote.RemoteWebDriver.execute(RemoteWebDriver.java:678) at org.openga.selenium.remote.RemoteWebElement.execute(RemoteWebElement.java:327) at org.openga.selenium.remote.RemoteWebElement.click(RemoteWebElement.java:85) at Fusepackage.FuseSprint.billofmaterial(FuseSprint.java:216) ... Removed 27 stack frames </pre> <hr/> <pre> proattachments java.lang.NullPointerException at Fusepackage.FuseSprint.proattachments(FuseSprint.java:442) ... Removed 23 stack frames </pre>

Second Requirement:

From this results client could not understood the requirements given by the test cases.It's difficult to understand the passed and failed tests on a particular test cases. So i have re-arranged the codes based on each and action like Click on Parts,Scroll to Products,Drag and Drop the card,Enter Task name etc.,

Here from the results client has confused with so much of duplicate cases.

[Ex.](#)Create a Parts for Five times with various Part names,Here the test scripts are same and it's handled by various execution time.

Third Requirement:

As per the client requirement, I have categorized all the test scripts based on test case ID. So client has to easily find which test cases going to passed and failed from the test results. [Refer this Image](#)

This is an image represent the passed test cases with test case Id to easily understand the requirement from the test cases.

<div> <div>TestNG Results</div> <div> Results overview Reporter output </div> <div> <div>Default suite</div> <div>3 Groups</div> <div>39 / 51 / 90</div> </div> <div>57%</div> <div>Default test</div> </div>				
ST0001projectEngineerLogin()	16:58:12	36s		
ST0001clickOnTasks()	16:58:48	3s		
ST0002clickAddTask()	16:58:51	3s		
ST0002enterTaskTitle(PE TASK)	16:58:55	5s		
ST0002clickCloseButton()	16:59:00	4s		
ST0003selectCreatedTask()	16:59:05	3s		
ST0003checkTitle()	16:59:08	48 ms		
ST0003checkOwner()	16:59:08	63 ms		
ST0003enterStartDate(06/30/2018)	16:59:08	3s		
ST0003enterEndDate(30/08/2018)	16:59:12	3s		
ST0003clickTagButton()	16:59:16	3s		
ST0003clickAffectedObject()	16:59:20	4s		
ST0003clickAnotherAffectedObject()	16:59:24	4s		
ST0003clickBackDrop()	16:59:28	4s		
ST0003clickCloseIcon()	16:59:33	4s		
ST0004clickCreatedTask()	16:59:37	3s		
ST0004checkTitleTwo()	16:59:41	42 ms		
ST0004checkOwnerTwo()	16:59:41	55 ms		
ST0004checkStartdate()	16:59:41	50 ms		
ST0004checkenddate()	16:59:41	53 ms		
ST0004removeDefaultOwner()	16:59:41	3s		
ST0004verifyStatus()	16:59:44	4s		
ST0005closeTaskWindow()	16:59:48	3s		
ST0005clickBoardsTab()	16:59:51	3s		
ST0005clickTaskTab()	16:59:54	5s		

This is an image represent the passed and failed test cases with test case Id to easily understand the requirement from the test cases.

<div> <div>TestNG Results</div> <div> Results overview Reporter output </div> <div> <div>Default suite</div> <div>3 Groups</div> <div>39 / 51 / 90</div> </div> <div>57%</div> <div>Default test</div> </div>				
ST0013selectProjManagerTask()	17:09:17	3s		
ST0013removePMOwner()	17:09:20	3s		
ST0013verifyWarningStatus()	17:09:23	3s		
ST0014removeRCOwner()	17:09:26	21s	org.openqa.selenium.NoSuchElementException: no such element: Unable to locate element: {"method":"xpath","selector":"html	
ST0014close()	17:09:48	3s		
ST0015clickAddNewTask()	17:09:51	3s		
ST0015enterReleaseCoordinatorTaskTitle(RC TASK)	17:09:55	5s		
ST0015clickOutsideTaskWindow()	17:10:01	3s		
ST0016OpenReleaseCoordinatorTask()	17:10:04	3s		
ST0016checkTitle()	17:10:07	61 ms		
ST0016checkOwner()	17:10:08	80 ms		
ST0016enterStartdate(06/30/2018)	17:10:08	3s		
ST0016enterEnddate(08/30/2018)	17:10:11	6s		
ST0016clickAffectedObjectIcon()	17:10:18	3s		
ST0016clickAffectedObj()	17:10:22	4s		
ST0016clickAnotherAffectedObj()	17:10:26	4s		
ST0016clickOutside()	17:10:31	203 ms	org.openqa.selenium.WebDriverException: unknown error: Element <div class="md-toolbar-tools layout-align-space-between-	
ST0016closeTask()	17:10:31	86 ms	org.openqa.selenium.WebDriverException: unknown error: Element <button class="md-icon-button md-button md-ink-ripple r	
ST0017clickRcTask()	17:10:31	54 ms	org.openqa.selenium.WebDriverException: unknown error: Element <div class="todo-item ng-scope md-ink-ripple layout-align	
ST0017deleteOwner()	17:10:31	123 ms	org.openqa.selenium.WebDriverException: unknown error: Element <button md-chip-remove="" class="md-primary ng-scope'	
ST0017verifyWarning()	17:10:31	3s		
ST0018addProjectManagerAsOwner(lakshmanan)	17:10:35	10s		
ST0019clickClose()	17:10:45	137 ms	org.openqa.selenium.WebDriverException: unknown error: Element <button class="md-icon-button md-button md-ink-ripple r	
ST0019clickBoardstab()	17:10:45	100 ms	org.openqa.selenium.WebDriverException: unknown error: Element <a class="ms-navigation-button ng-scope md-default-the	

This is an image represent the Skipped test cases with test case Id from the test results. Actually skipped cases are depending on another test case once it get passed those all the dependency cases are going to execute otherwise it is going to be skipped.

TestNG Results

[Results overview](#)
[Reporter output](#)

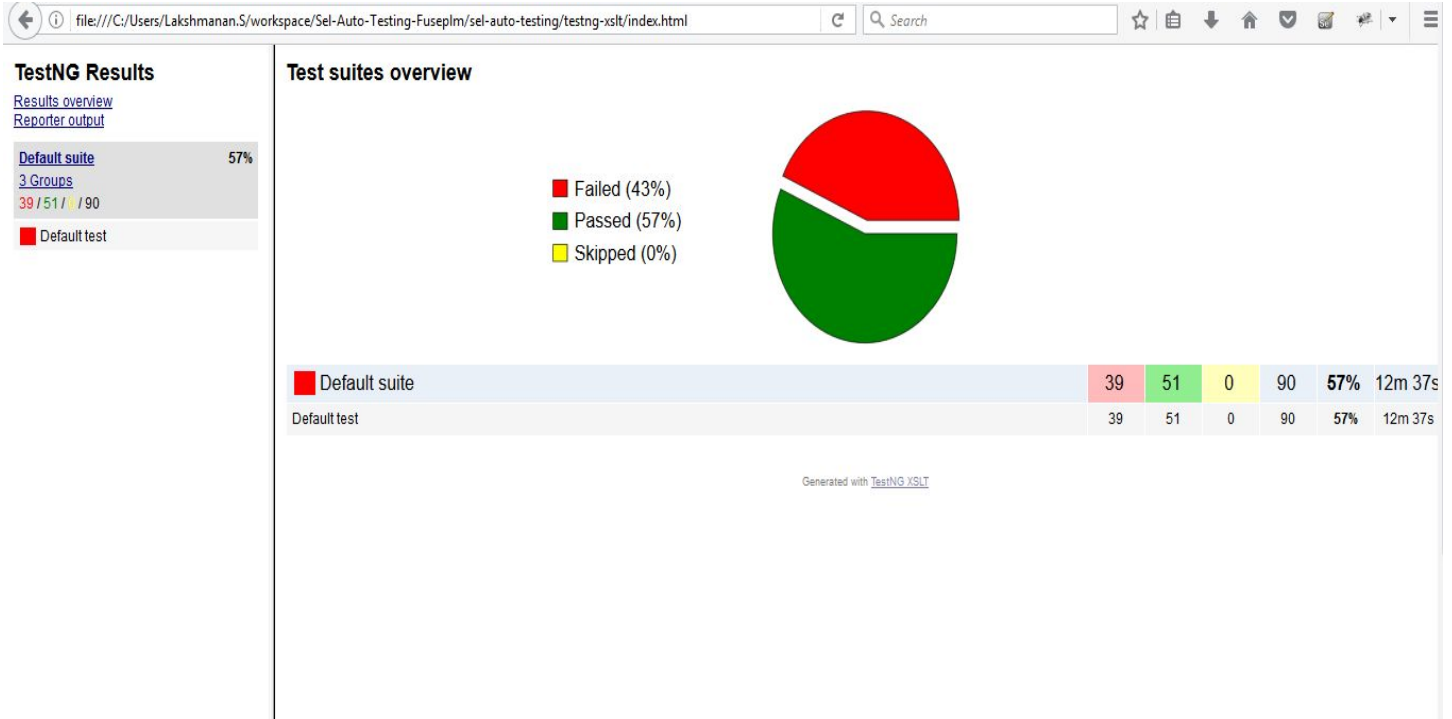
Suite	33%
11 Groups	
403 / 298 / 100 / 890	
Test	

fusepackage.FuseCards				
Name	Started	Duration	Exception	
fusepackage.FusePartsandProducts				
Name	Started	Duration	Exception	
PTPDT0010DoAdditioanlInfoIfPartisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0010DoAdditioanlInfoIfPartisinDevelopment()	
PTPDT0012DoAttachmentsIfPartisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0012DoAttachmentsIfPartisinDevelopment()	
PTPDT0017ClickonManufactureIfPartisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0017ClickonManufactureIfPartisinDevelopment()	
PTPDT0021ClickonSupplierIfPartisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0021ClickonSupplierIfPartisinDevelopment()	
PTPDT0029DoAdditioanlInfoIfPartisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0029DoAdditioanlInfoIfPartisinDevelopment()	
PTPDT0045ClickonBillofmaterialtapinPartfromWhereUsed()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0045ClickonBillofmaterialtapinPartfromWhereUsed()	
PTPDT0036ClickonBillofmaterialtapinPart()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0036ClickonBillofmaterialtapinPart()	
PTPDT0050ClickonPartfromtheSearch()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0050ClickonPartfromtheSearch()	
PTPDT0050ClickonBillofmaterialtapinPart()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0050ClickonBillofmaterialtapinPart()	
PTPDT0063DoAdditionalInfoIfProductisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0063DoAdditionalInfoIfProductisinDevelopment()	
PTPDT0050ClickonPartintheBOM()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0050ClickonPartintheBOM()	
PTPDT0051ClickonWhereUsedTapinthePartView()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0051ClickonWhereUsedTapinthePartView()	
PTPDT0065DoAttachmentsIfProductsInDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0065DoAttachmentsIfProductsInDevelopment()	
PTPDT0073DoAdditionalInfoIfProductisinDevelopment()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0073DoAdditionalInfoIfProductisinDevelopment()	
PTPDT0075ClickonBillofmaterialtapinProduct()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0075ClickonBillofmaterialtapinProduct()	
PTPDT0083ClickonBillofmaterialtapinProductfromWhereUsed()	12:37:03	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0083ClickonBillofmaterialtapinProductfromWhereUsed()	
PTPDT0010EnterInternalTrackingNumberinAdditionalInfoofPart()	12:37:04	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0010EnterInternalTrackingNumberinAdditionalInfoofPart()	
PTPDT0012ClickonUploadButtoninAttachmentsofParts()	12:37:04	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0012ClickonUploadButtoninAttachmentsofParts()	
PTPDT0012DoAutoTtToUploadJPGfileinAttachmentsofParts()	12:37:04	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0012DoAutoTtToUploadJPGfileinAttachmentsofParts()	
PTPDT0012DoAutoTtToUploadPDFfileinAttachmentsofParts()	12:37:04	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0012DoAutoTtToUploadPDFfileinAttachmentsofParts()	
PTPDT0018EnterManufacturerNameinSourcingofPart()	12:37:04	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0018EnterManufacturerNameinSourcingofPart()	
PTPDT0017ClickonAddNewManufacturerinSourcingofPart()	12:37:04	0 ms	java.lang.Throwable: Method FusePartsandProducts.PTPDT0017ClickonAddNewManufacturerinSourcingofPart()	

Final Requirement:

Whenever the execution of test scripts we can find out the exceptions cases on test results. But that @test not going to be failed because of that action has to be completed with exception cases so that it displays the type of exception in the test results.

Technically client could not understood the concepts from the testng results. They required the results like whenever the exception was handled on every @test that particular @test going to be failed by the reason of exception. So that i have removed the exception (try and catch, Finally cases) to all the test cases. Finally delivered the project to client. Refer the test results.



file:///C:/Users/Lakshmanan.S/workspace/Sel-Auto-Testing-Fuseplm/sel-auto-testing/testng-xslt/index.html


TestNG Results

[Results overview](#)
[Reporter output](#)

[Default suite](#) 57%
3 Groups
39 / 51 / 0 / 90

Default test

ST0001projectEngineerLogin()	16:58:12	36s
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ST0002clickAddTask()	16:58:51	3s
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ST0003selectCreatedTask()	16:59:05	3s
ST0003checkTitle()	16:59:08	48 ms
ST0003checkOwner()	16:59:08	63 ms
ST0003enterStartDate(06/30/2018)	16:59:08	3s
ST0003enterEndDate(30/08/2018)	16:59:12	3s
ST0003clickTagButton()	16:59:16	3s
ST0003clickAffectedObject()	16:59:20	4s
ST0003clickAnotherAffectedObject()	16:59:24	4s
ST0003clickBackDrop()	16:59:28	4s
ST0003clickCloseIcon()	16:59:33	4s
ST0004clickCreatedTask()	16:59:37	3s
ST0004checkTitleTwo()	16:59:41	42 ms
ST0004checkOwnerTwo()	16:59:41	55 ms
ST0004checkStartdate()	16:59:41	50 ms
ST0004checkenddate()	16:59:41	53 ms
ST0004removeDefaultOwner()	16:59:41	3s
ST0004verifyStatus()	16:59:44	4s
ST0005closeTaskWindow()	16:59:48	3s
ST0005clickBoardsTab()	16:59:51	3s
ST0005clickTaskTab()	16:59:51	5s

TestNG Results		
Results overview		
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ST0013removePMOwner()	17:09:20	3s
ST0013verifyWarningStatus()	17:09:23	3s
ST0014removeRCOwner()	17:09:26	21s org.openqa.selenium.NoSuchElementException: no such element: Unable to locate element: {"method":"xpath","selector":"htm
ST0014close()	17:09:48	3s
ST0015clickAddNewTask()	17:09:51	3s
ST0015enterReleaseCoordinatorTaskTitle(RC TASK)	17:09:55	5s
ST0015clickOutsideTaskWindow()	17:10:01	3s
ST0016OpenReleaseCoordinatorTask()	17:10:04	3s
ST0016checkTitle()	17:10:07	61 ms
ST0016checkOwner()	17:10:08	80 ms
STOO16enterStartdate(06/30/2018)	17:10:08	3s
ST0016enterEnddate(08/30/2018)	17:10:11	6s
ST0016clickAffectedObjectIcon()	17:10:18	3s
ST0016clickAffectedObj()	17:10:22	4s
ST0016clickAnotherAffectedObj()	17:10:26	4s
ST0016clickOutside()	17:10:31	203 ms org.openqa.selenium.WebDriverException: unknown error: Element <div class="md-toolbar-tools layout-align-space-between-
ST0016closetask()	17:10:31	86 ms org.openqa.selenium.WebDriverException: unknown error: Element <button class="md-icon-button md-button md-ink-ripple m
ST0017clickRcTask()	17:10:31	54 ms org.openqa.selenium.WebDriverException: unknown error: Element <div class="todo-item ng-scope md-ink-ripple layout-align
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STOO19clickBoardstab()	17:10:45	100 ms org.openqa.selenium.WebDriverException: unknown error: Element <a class="ms-navigation-button ng-scope md-default-the