Bitbucket

SVN to Git Migration

&

Operations using TortoiseGit

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Document Information

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Prepared By:	Swapna Munnangi	**Document Version No:**	0.1
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Reviewed By:	Molakala Reddy Praveen	**Review Date:**	

Document Version History

Version Number	Version Date	Prepared by	Revised By	Description
1	12-Apr-18	Swapna Munnangi	Molakala Reddy Praveen	SVN to Git Migration & Operations using TortoiseGit

SVN Migration to Git

1. Prerequisites for Migration

- SVN installation setup on local system
  SVN: https://tortoisesvn.net/downloads.html

- Ordering Bit bucket [Using below URL]
  https://bmwprod.service-now.com

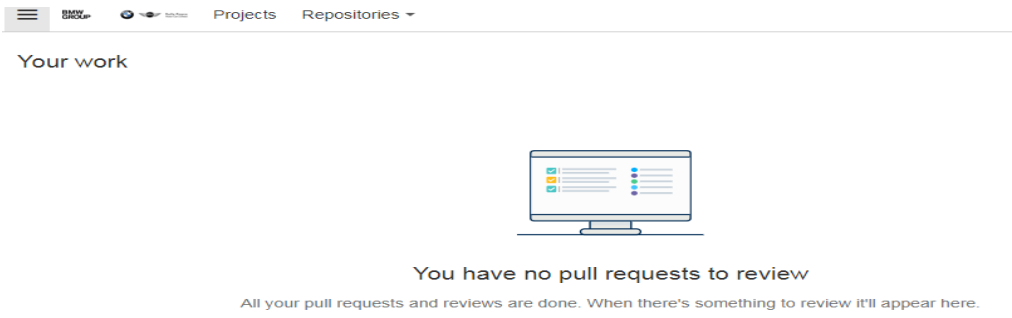
- Access to SVN Repository
- Access to Bit bucket

2. Implementation steps involved in migration

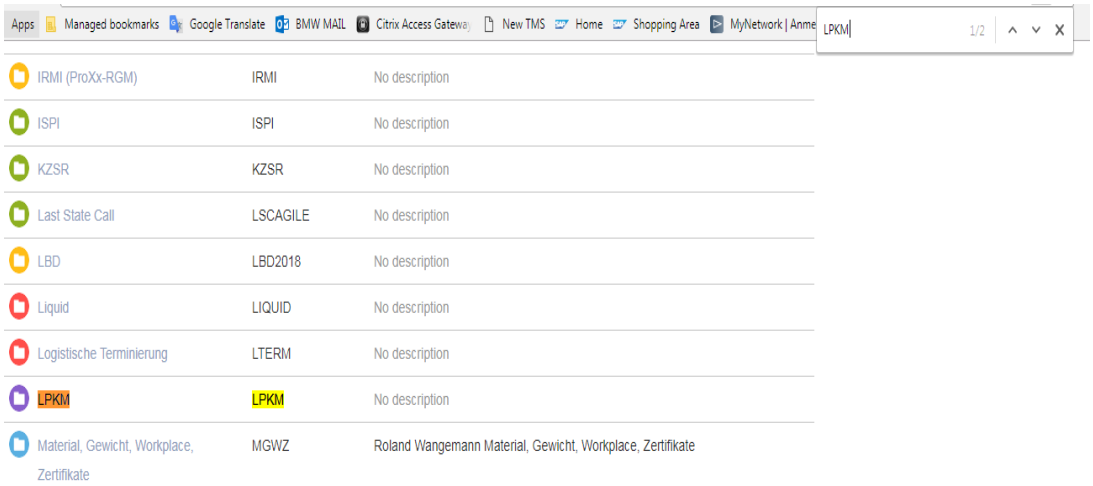
1. Creation of Git REPOSITORY

   - Login to the below URL using QX number and password to see the below screen

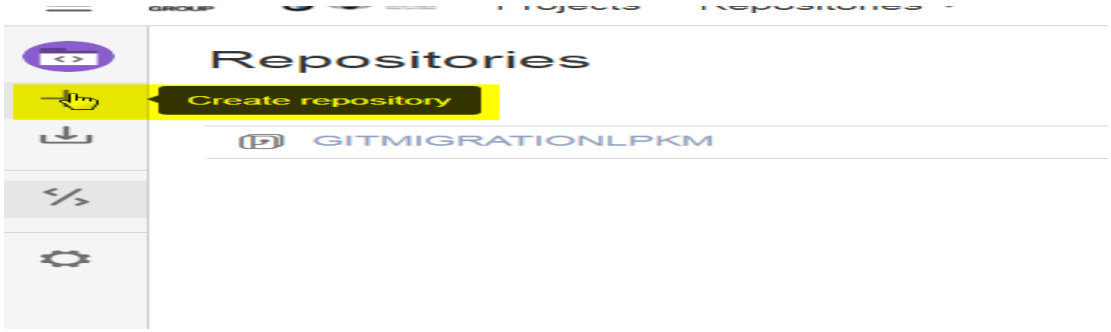
     URL : https://atc.bmwgroup.net/bitbucket/



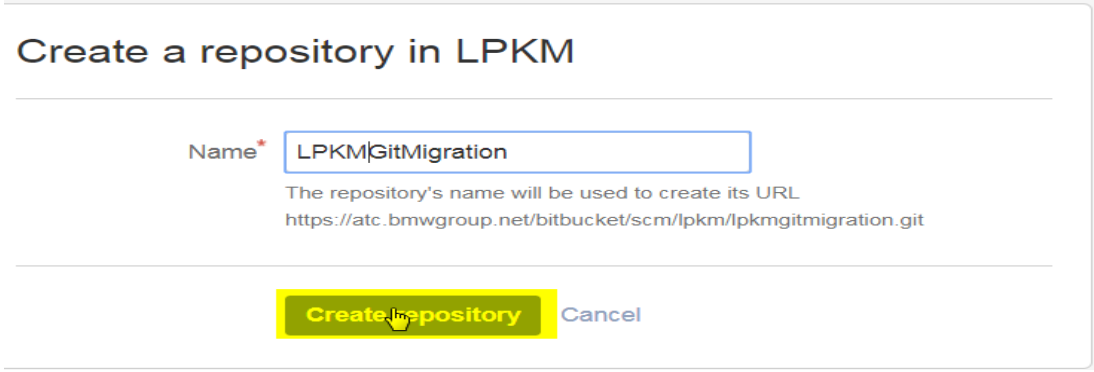
2. Now click on Projects, search for the application(LPKM) and click on it



3. Click on ‘Create repository’

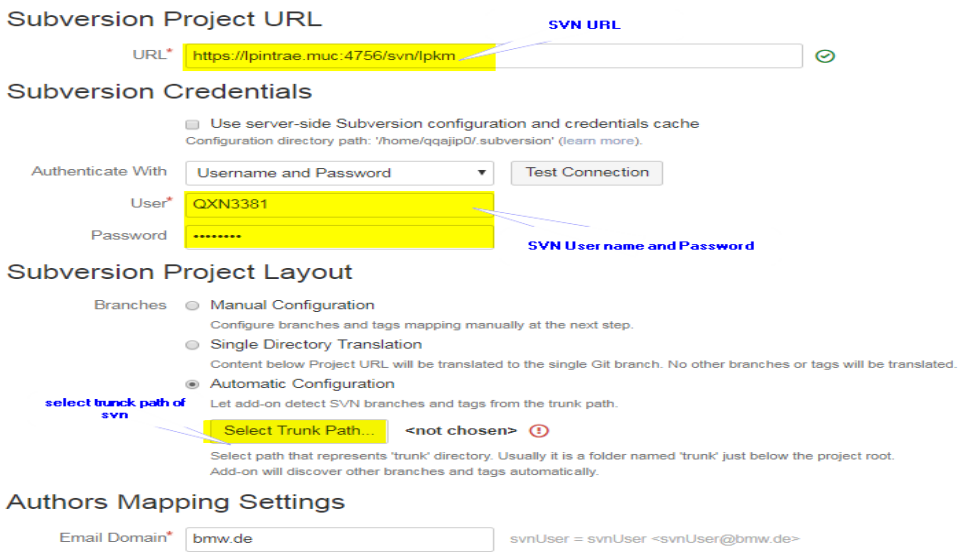


4. Specify a name to your repository and click on ‘Create Repository’ button.

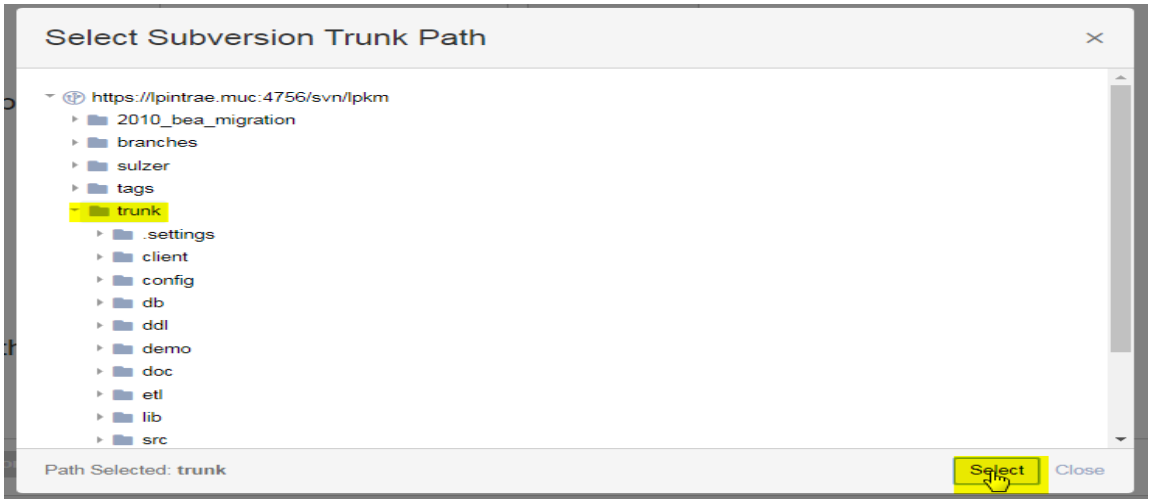


5. Go to SVN Mirror settings in the newly created Repository

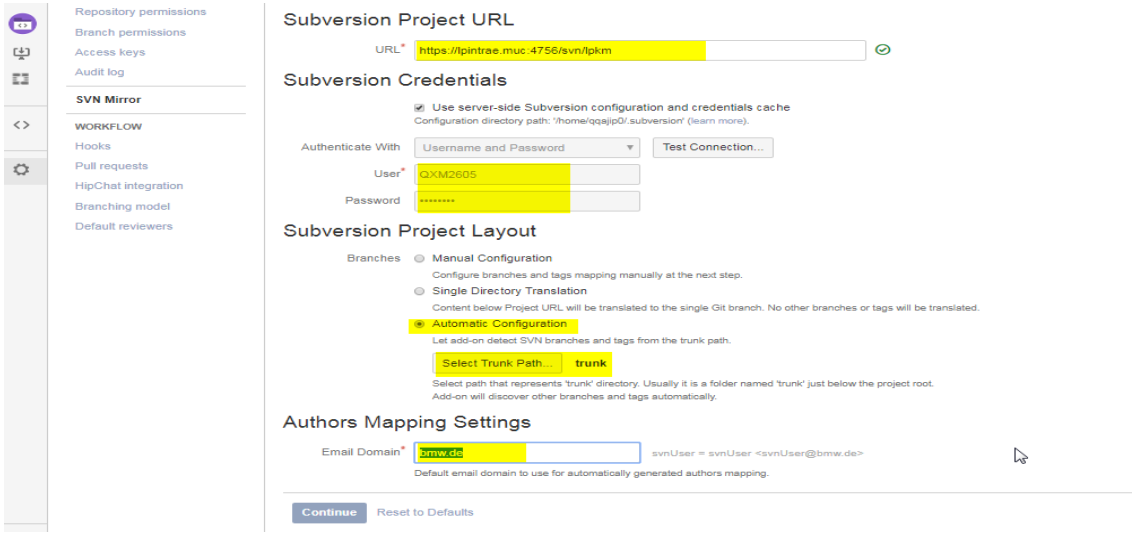
6. Provide the SVN URL, SVN username, password, email domain and select trunk path of SVN.



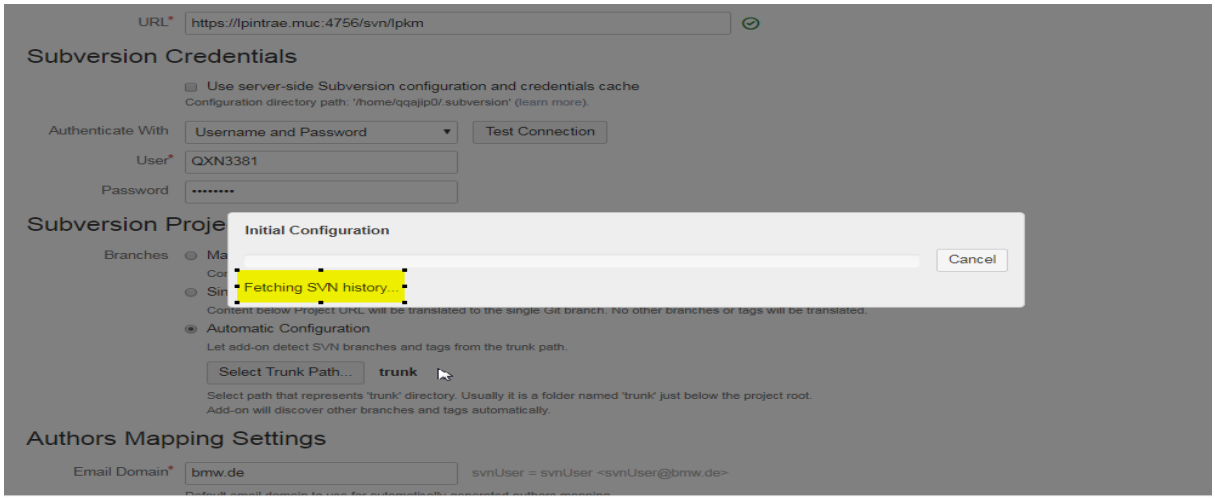
7. Selecting the trunk path of SVN as shown below,

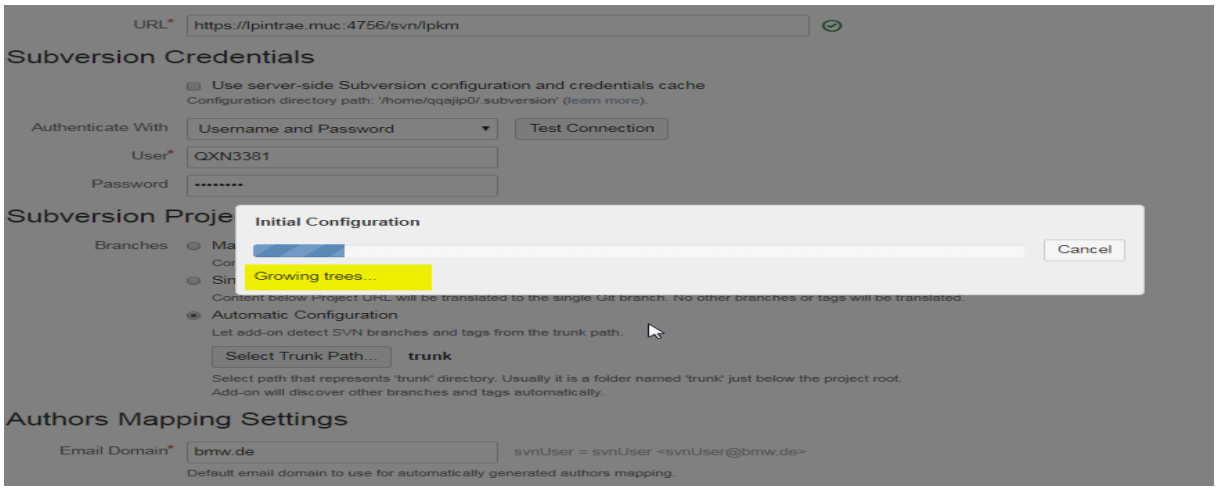


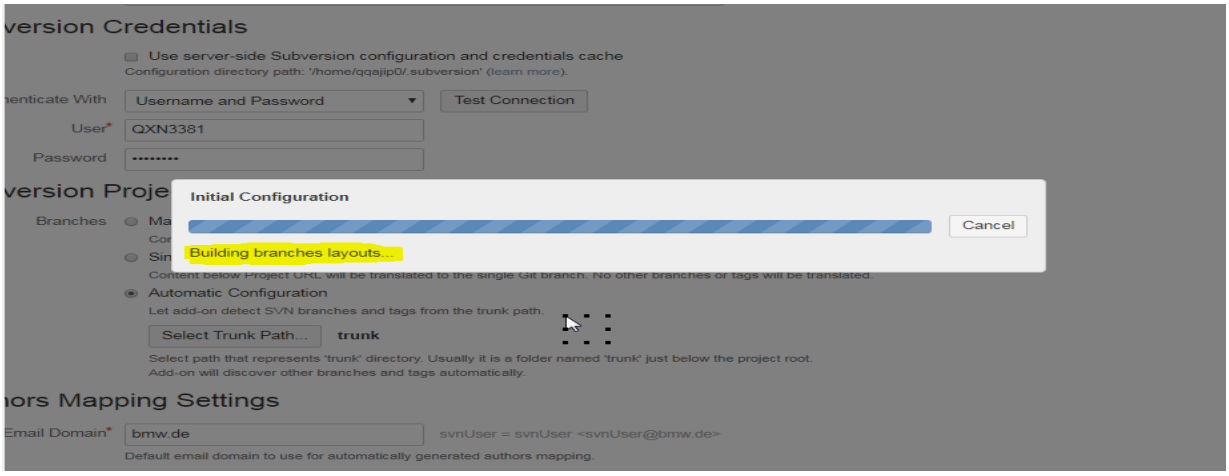
8. Click on continue button



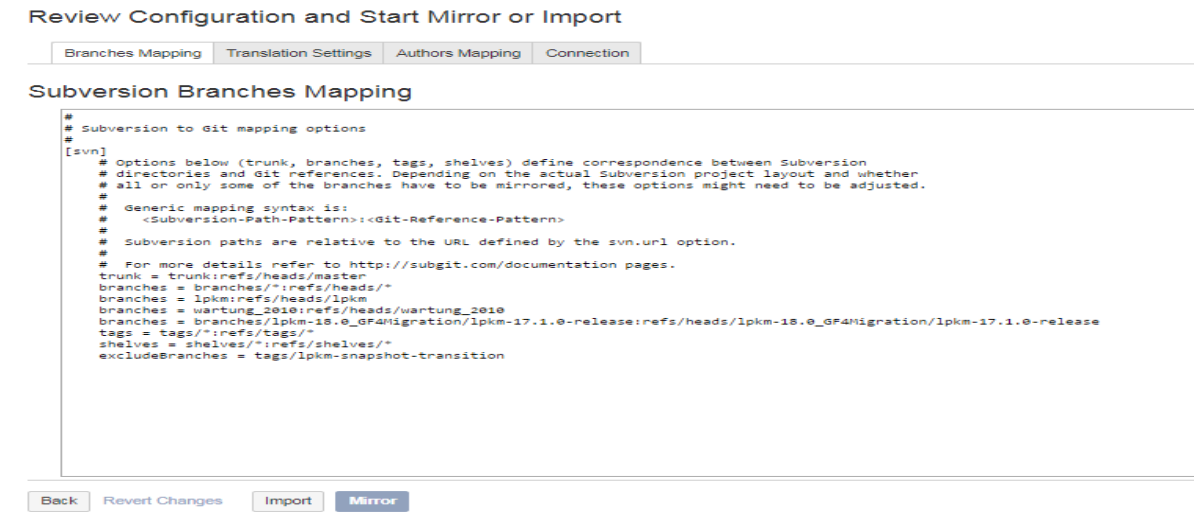
9. It connects to SVN and below messages appears once configuration started.





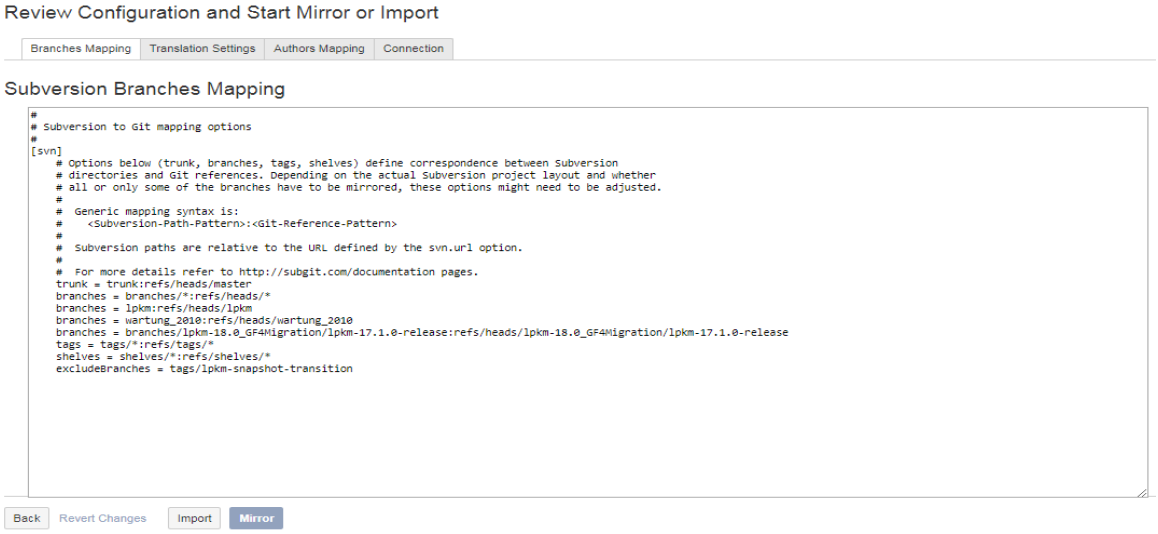


10. Once the configuration process is completed, the below screen appears



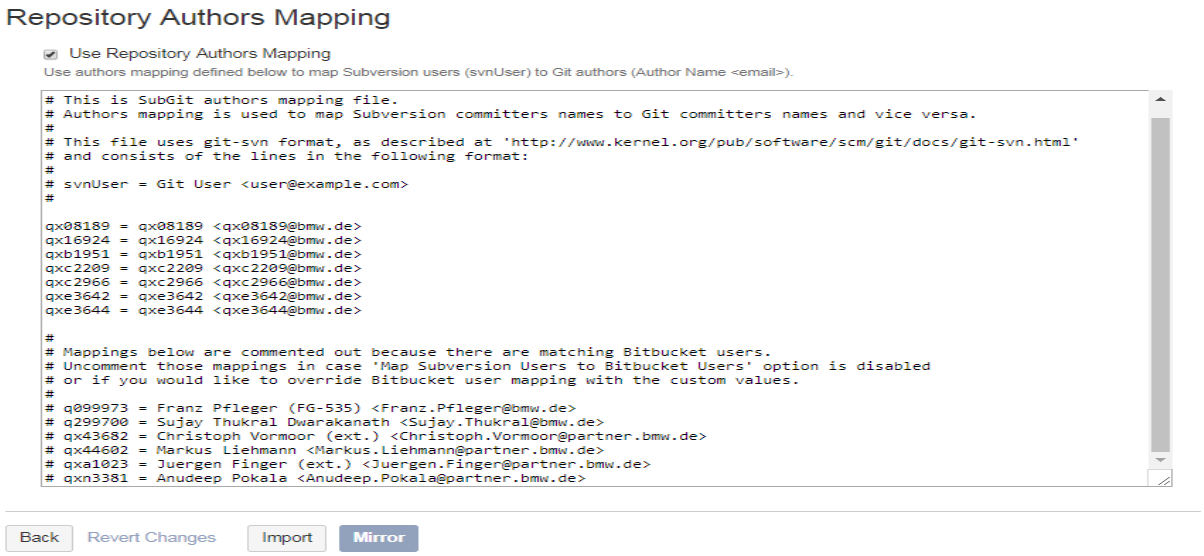
11. Now adjust the Branch Mapping, Authors Mapping and translation modifications are required as mappings are automatically picked up.

- **Branch Mapping**

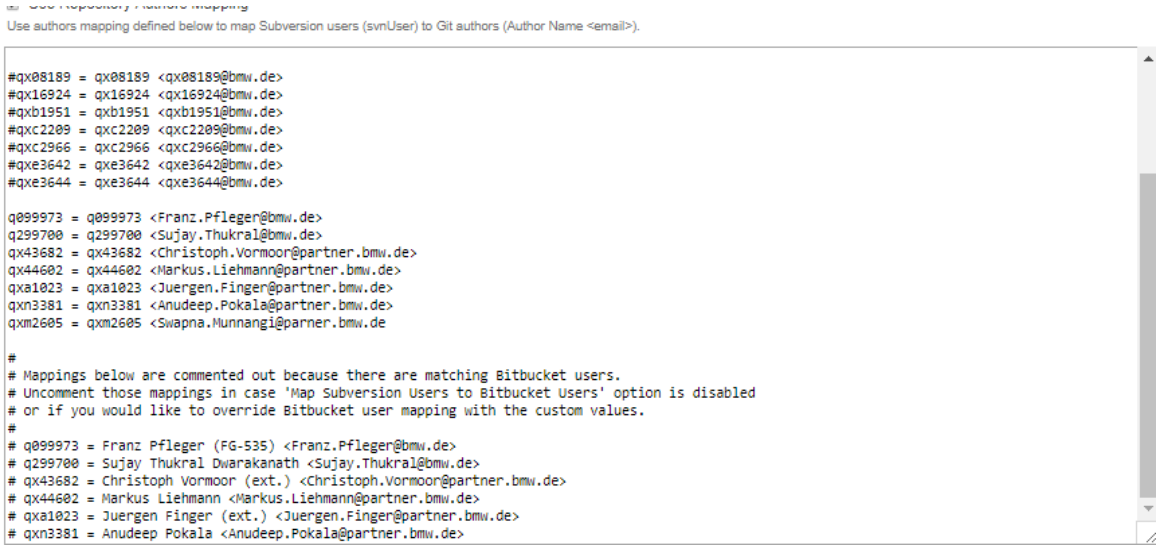


- **Authors Mapping**

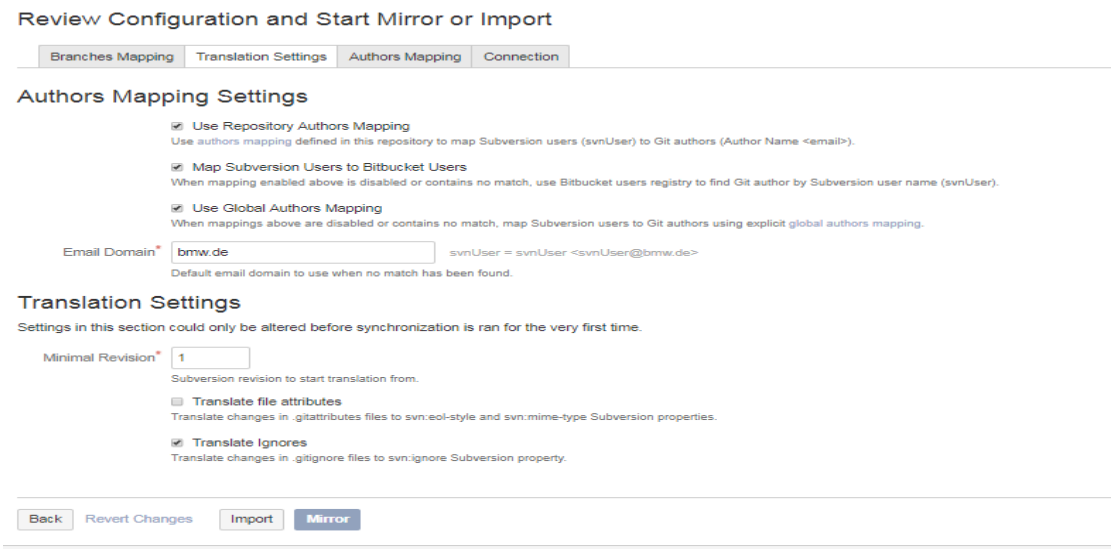
Before Adjusting the Authors Mapping, screen appears as below



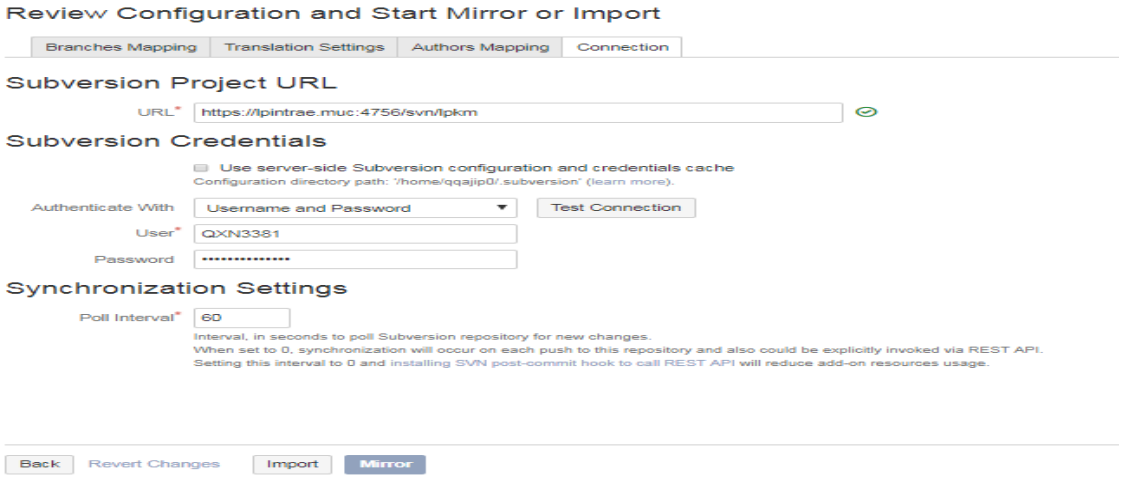
After adjusting the Authors Mapping, screen appears as below



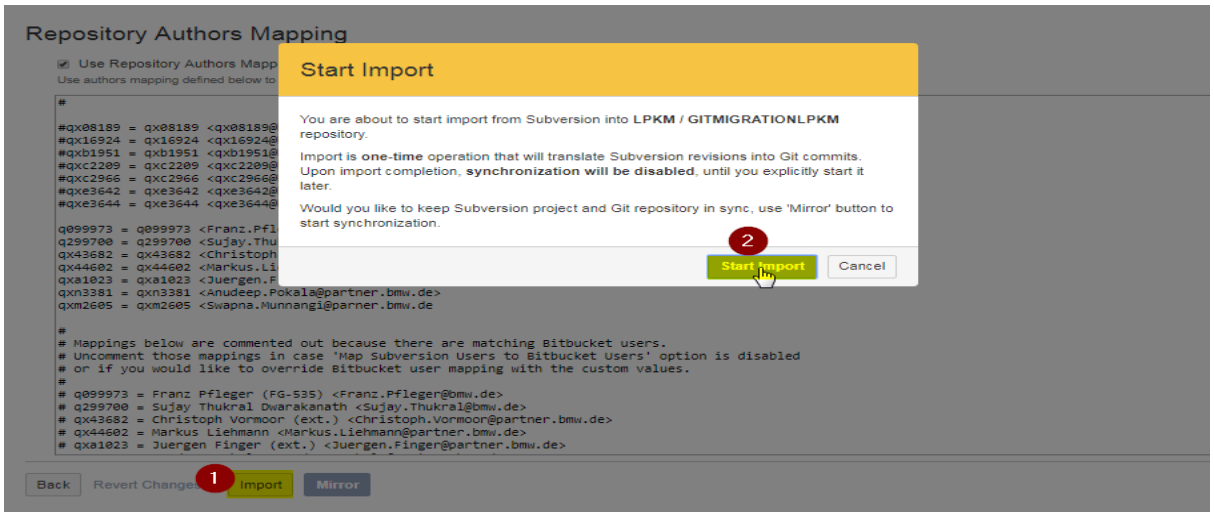
- **Translation Settings**

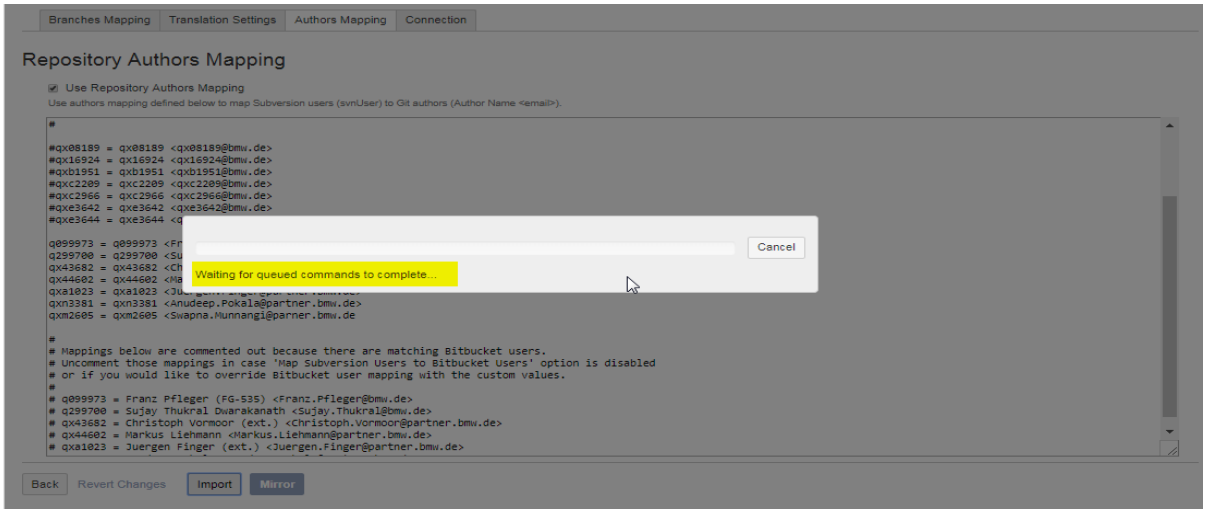


- **Connection Settings**

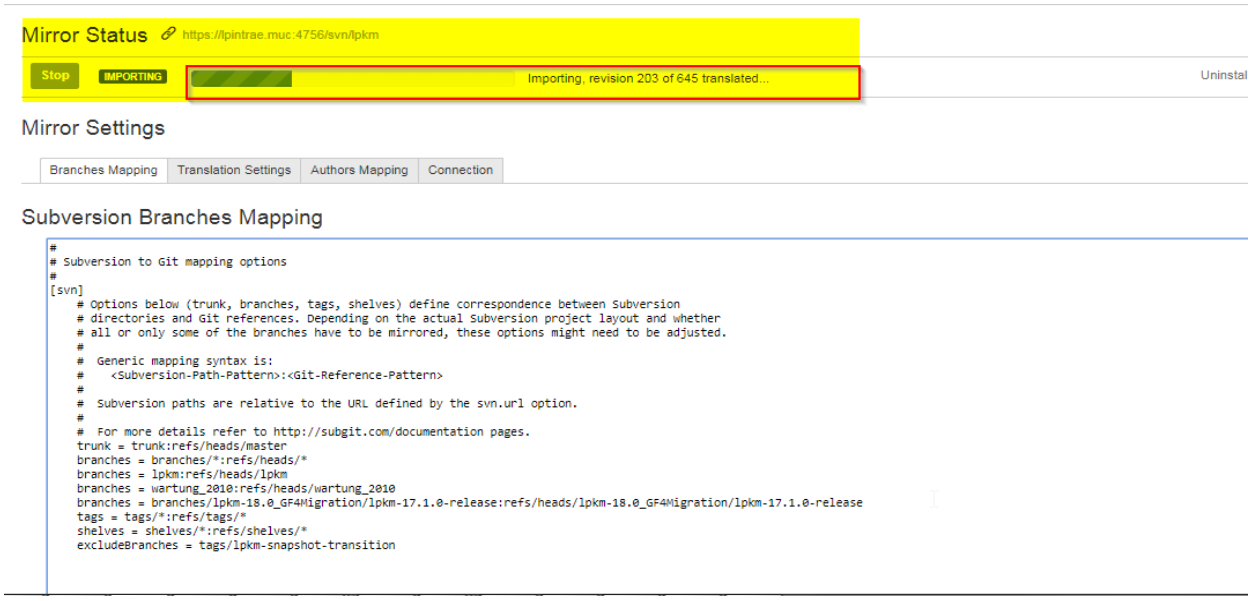


12. Finally click on ‘Import’ button and then click on ‘Start import’ button to import the code from SVN repository to Git

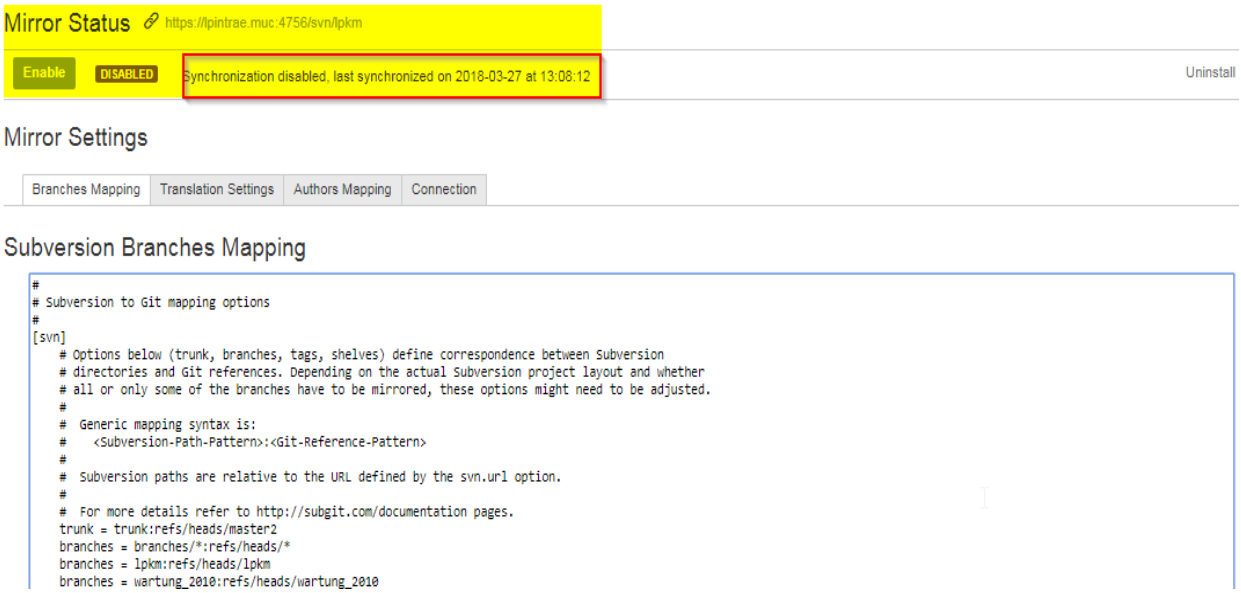




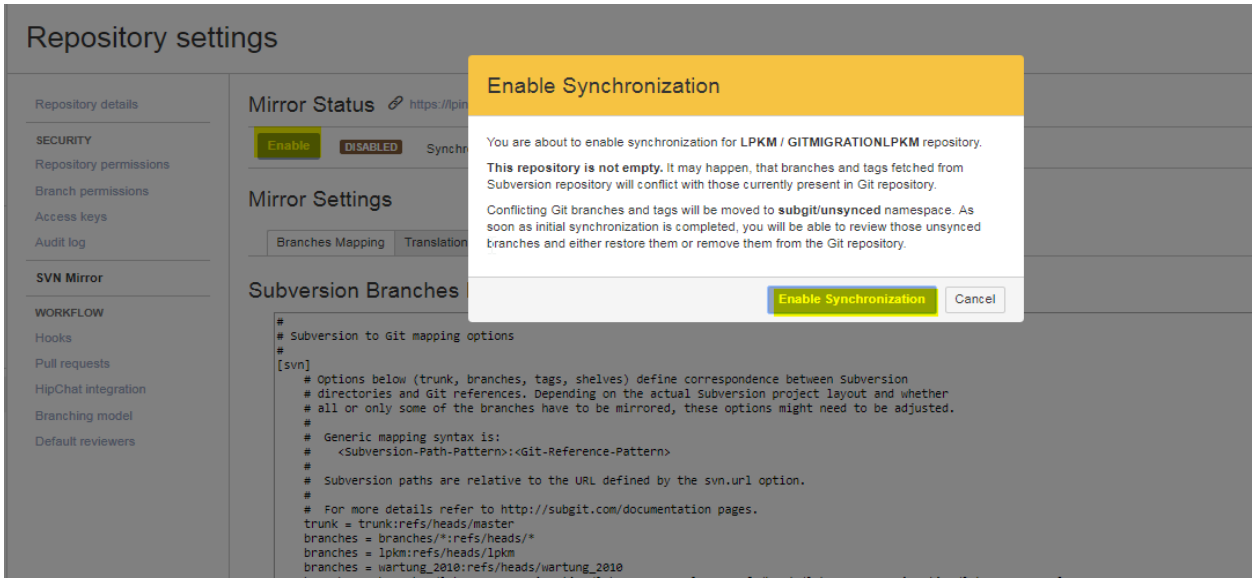
13. Importing process is visible on the top of the Mirror settings window.



14. Once the import is done, ENABLE button is viewed on left top corner.



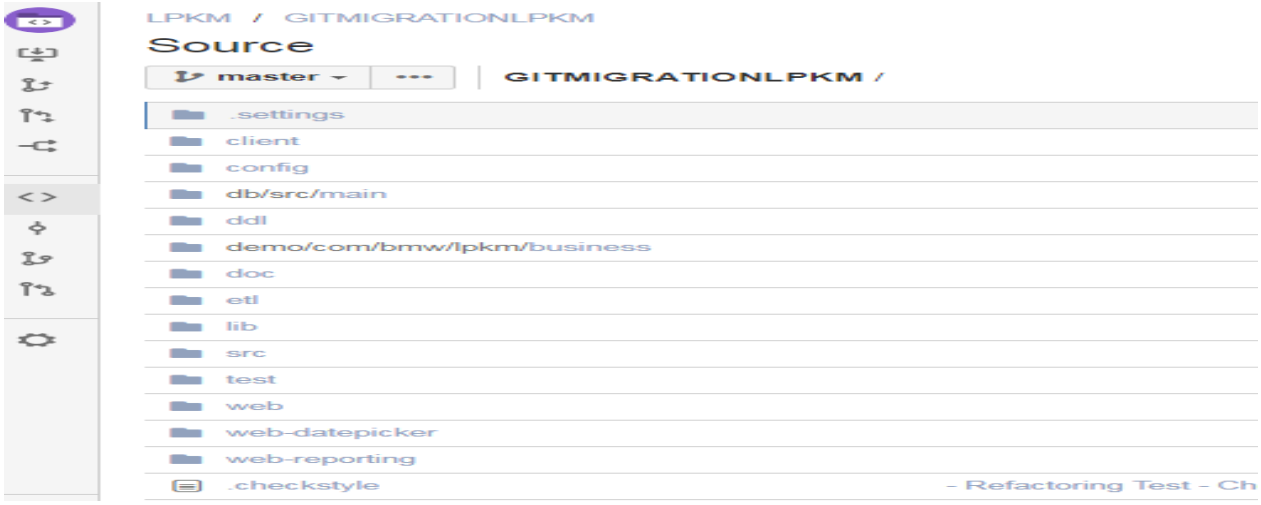
15. Click on ‘Enable’ button and then click on ‘Enable Synchronization’.



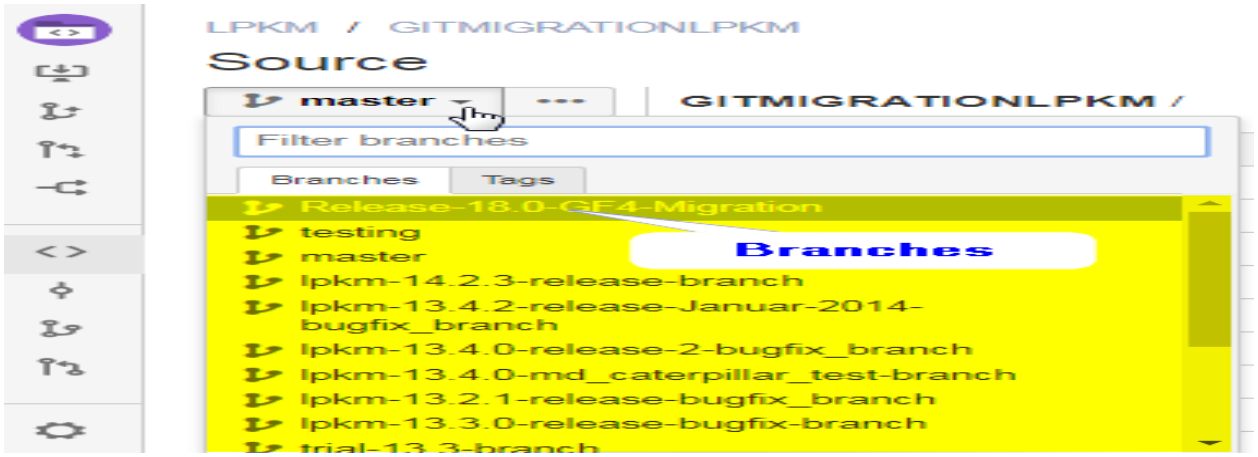
16. The progress bar starts and once the process is completed, the below screen appears. If there are any conflicts, then ‘UNSYNCED’ button appears next to ‘ACTIVE’ button.

17. Now we have the Git repository with the contents of SVN repository

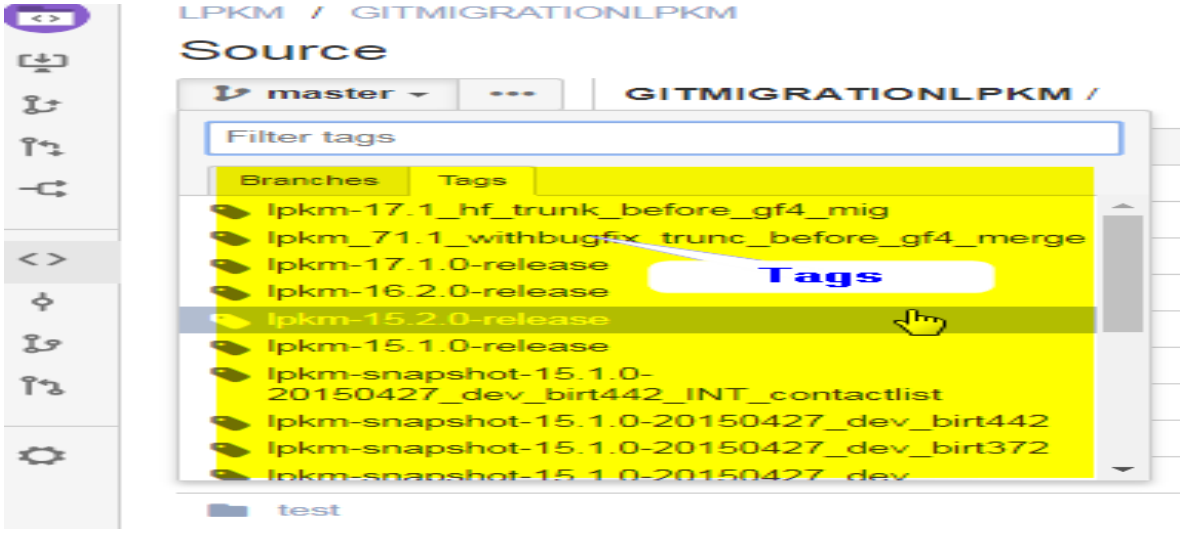
Master [Master is trunk in SVN]



Branches



Tags


LPKM / GITMIGRATIONLPKM
Source
master
GITMIGRATIONLPKM /
Filter tags
Branches
Tags
lpkm-17.1_hf_trunk_before_gf4_mig
lpkm_71.1_withbugfix_trunc_before_gf4_merge
lpkm-17.1.0-release
lpkm-16.2.0-release
lpkm-15.2.0-release
lpkm-15.1.0-release
lpkm-snapshot-15.1.0-20150427_dev_birt442_INT_contactlist
lpkm-snapshot-15.1.0-20150427_dev_birt442
lpkm-snapshot-15.1.0-20150427_dev_birt372
Tags
test

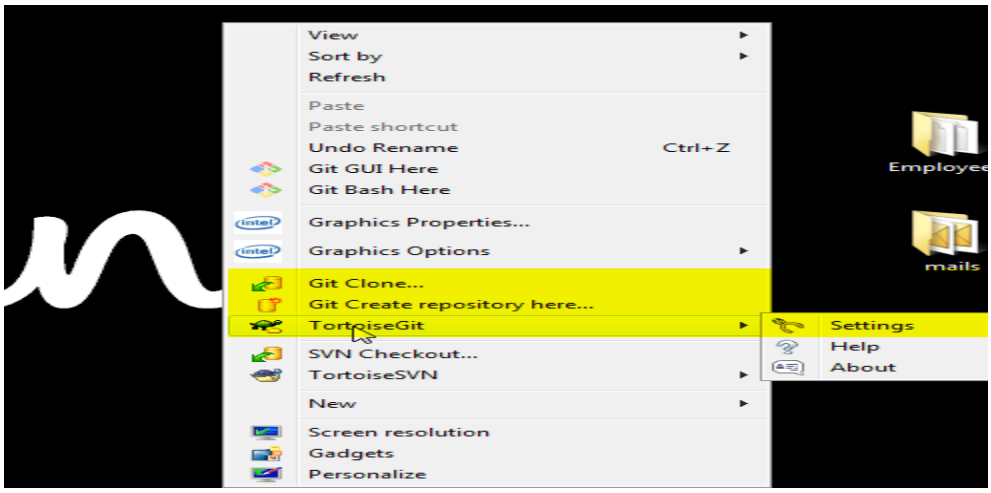
3. Operations using TortoiseGit

Installation of TortoiseGit

Install TortoiseGit from the URL,

URL : :- https://tortoisegit.org/

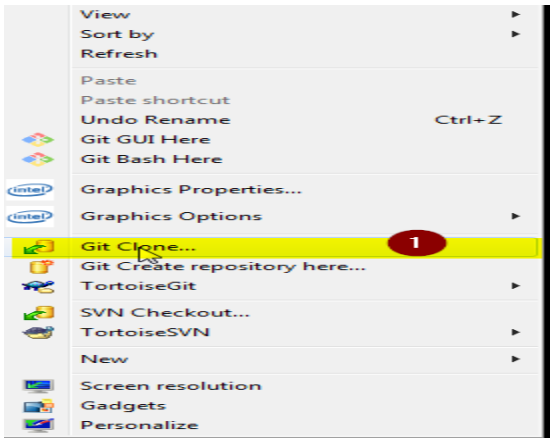
Once the installation is completed, right click on your desktop so that you can see the below options.



3.1 Clone

- Connect to Git remote repository and click on Git clone

  [Clone in Git is similar to checkout of code in SVN]



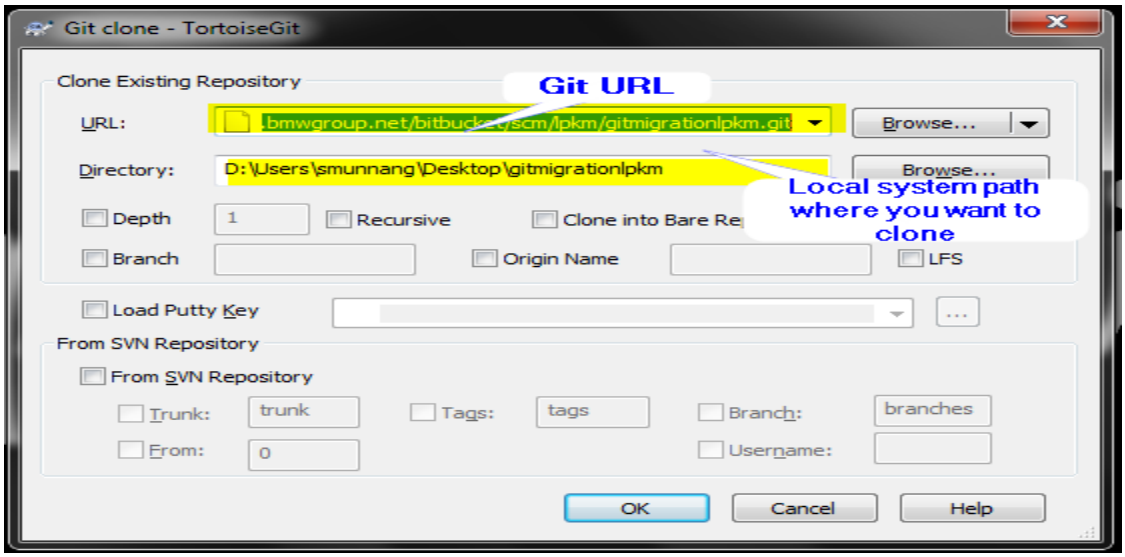
- For **cloning of Master**, provide the below details,

  - Git repository URL
  - Browse the path of local system of Master to be Cloned from the Git repository

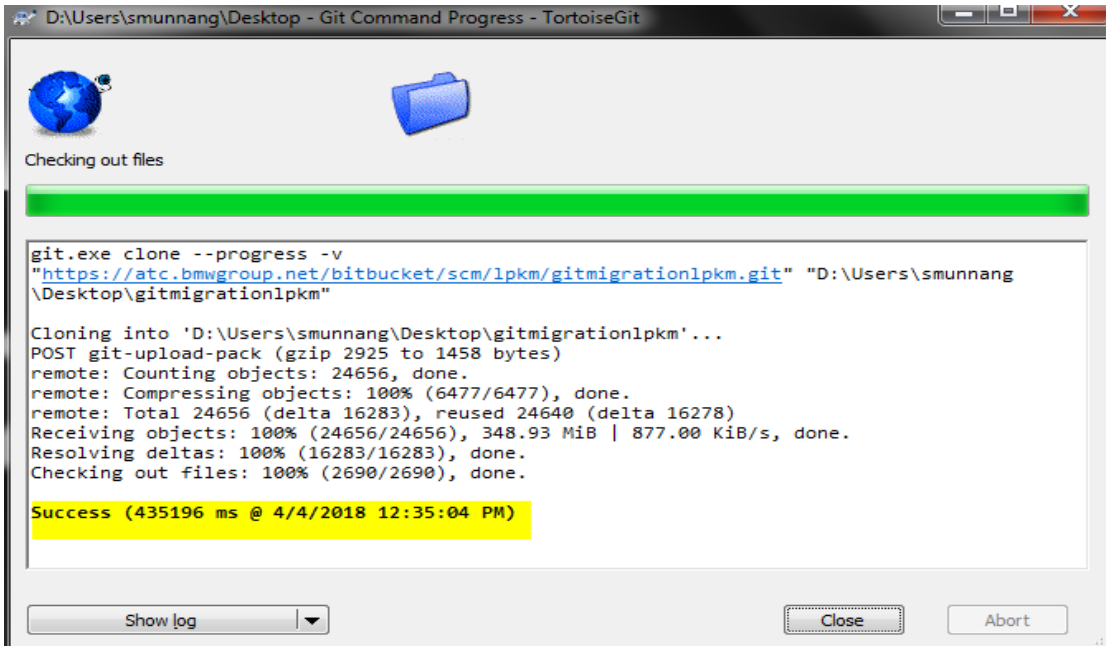
  Click on 'OK'.

Git Repository URL :

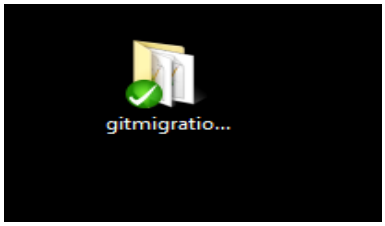
https://atc.bmwgroup.net/bitbucket/scm/lpkm/gitmigrationlpkm.git



- Cloning of Master from Git repository takes time and success message will appear once completed as appear in the below screenshot



- Folder of cloned Master from Git repository to local system appears as in below image.

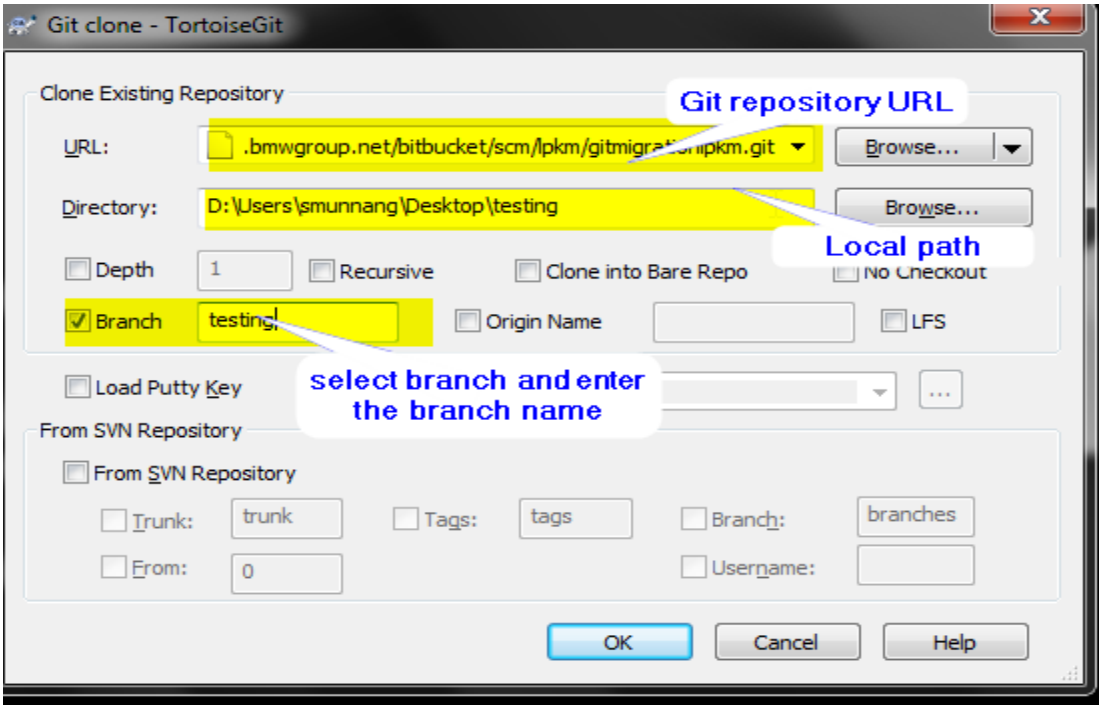


- In order **to clone the Branch**, we have 2 ways

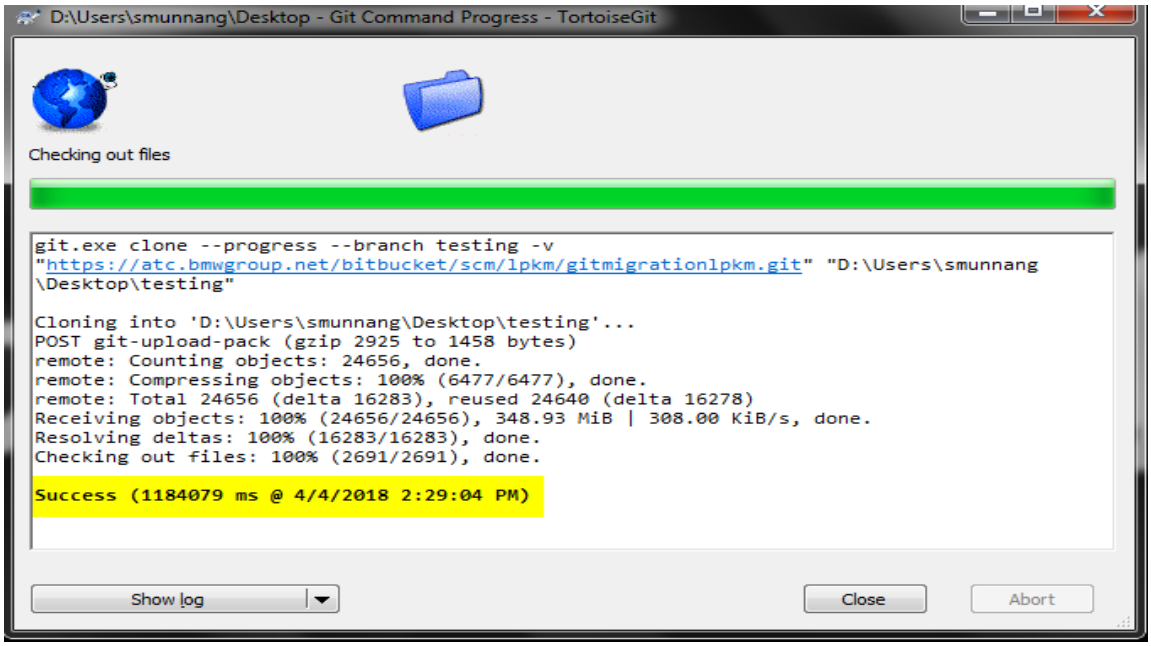
a) Cloning of a Branch using 'Git clone' option

- Enter the Git repository URL
- Browse the path of local system of branch to be cloned from the Git repository
- Check the '**Branch**' option
- Enter the Branch name

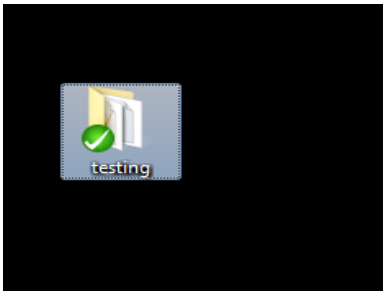
Click on 'OK'



- Cloning of Branch from Git repository takes time and success message will appear once completed as appear in the below screenshot

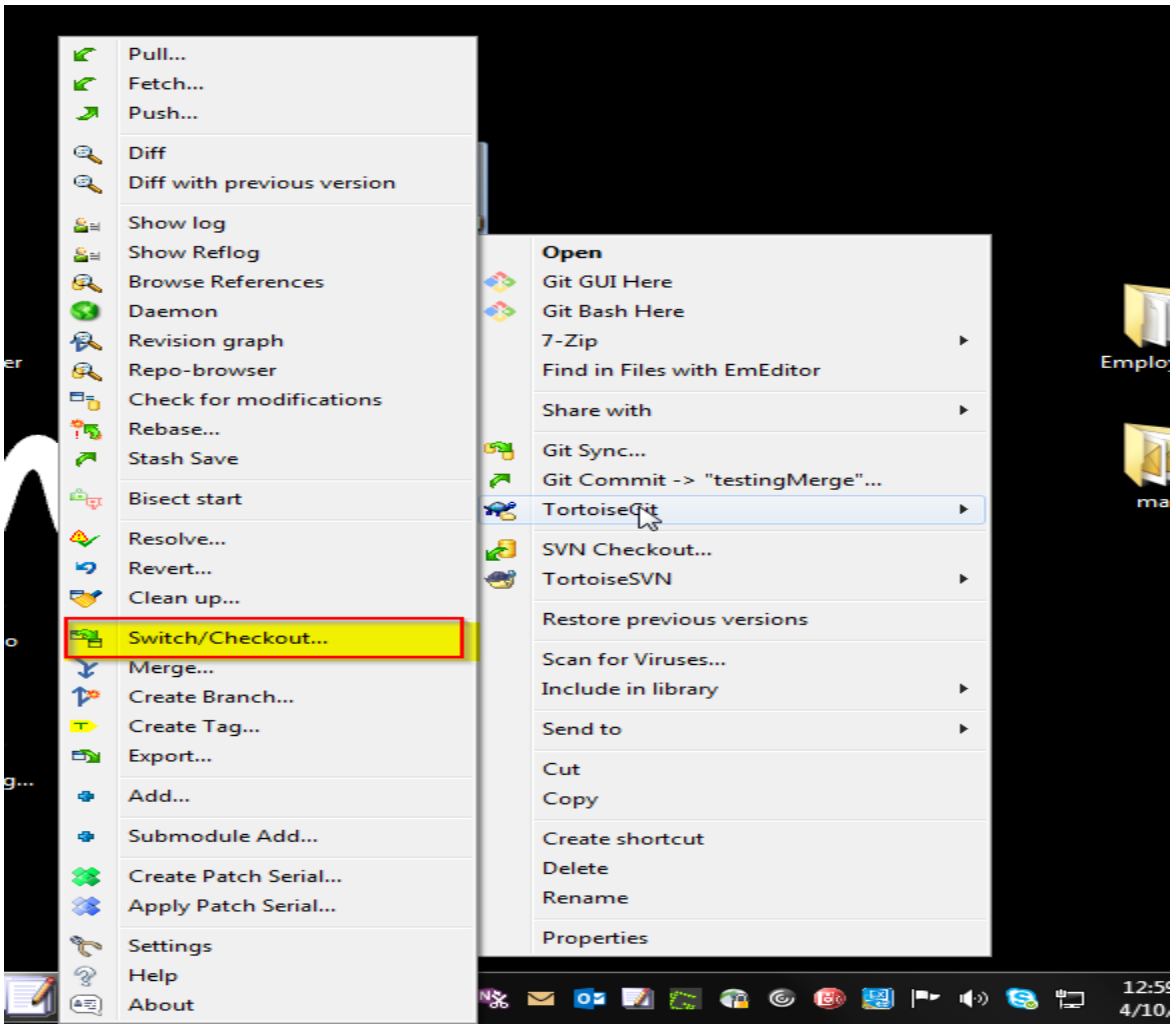


- Folder of cloned Branch from the Git repository to local system appears as in below image.

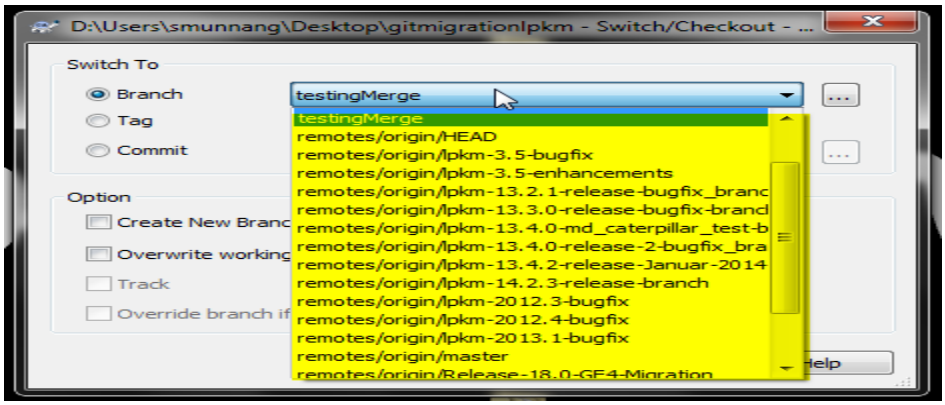


b) Cloning of a Branch by using 'Switch/Checkout'

- Go to →Right click on the cloned Master folder→click on 'TortoiseGit'→'click on Switch/Checkout'



- Select the required Branch to be cloned and click on ‘OK’. So that we can see the contents of required cloned Branch.

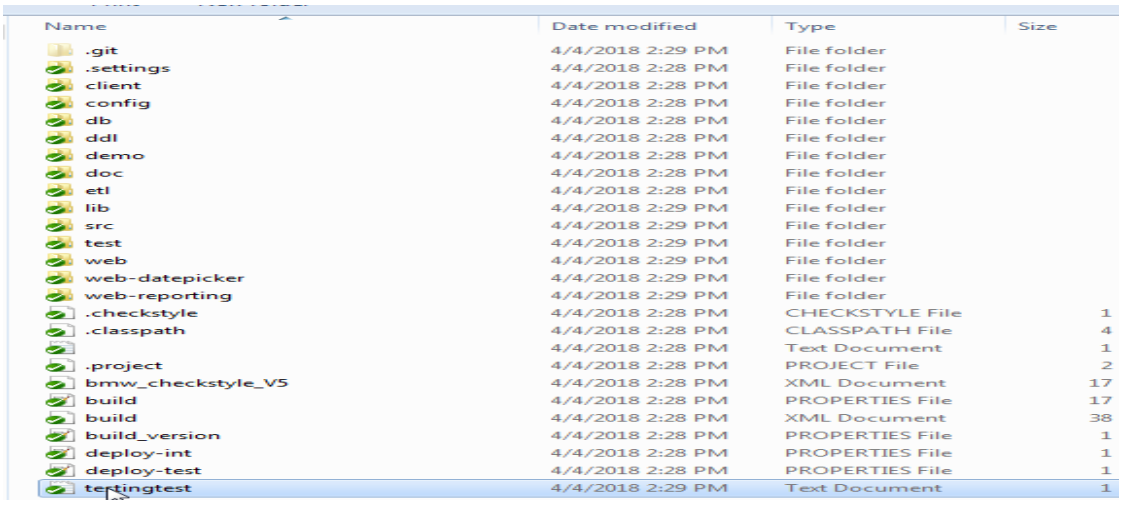


- Now you will have the contents of a specified Branch in the cloned folder based on our selection.

3.2 Commit

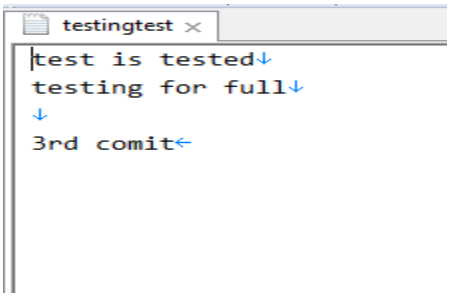
- Steps to commit the new changes made in the Branch of local system to Git repository illustrated here with an example.

  - Selected the file ‘testingtest.txt’ as appear in below screenshot

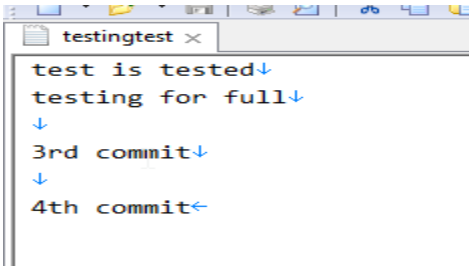


Name	Date modified	Type	Size
.git	4/4/2018 2:29 PM	File folder	
.settings	4/4/2018 2:28 PM	File folder	
client	4/4/2018 2:28 PM	File folder	
config	4/4/2018 2:28 PM	File folder	
db	4/4/2018 2:28 PM	File folder	
ddl	4/4/2018 2:28 PM	File folder	
demo	4/4/2018 2:28 PM	File folder	
doc	4/4/2018 2:28 PM	File folder	
etl	4/4/2018 2:28 PM	File folder	
lib	4/4/2018 2:29 PM	File folder	
src	4/4/2018 2:29 PM	File folder	
test	4/4/2018 2:29 PM	File folder	
web	4/4/2018 2:29 PM	File folder	
web-datepicker	4/4/2018 2:29 PM	File folder	
web-reporting	4/4/2018 2:29 PM	File folder	
.checkstyle	4/4/2018 2:28 PM	CHECKSTYLE File	1
.classpath	4/4/2018 2:28 PM	CLASSPATH File	4
	4/4/2018 2:28 PM	Text Document	1
.project	4/4/2018 2:28 PM	PROJECT File	2
bmw_checkstyle_V5	4/4/2018 2:28 PM	XML Document	17
build	4/4/2018 2:28 PM	PROPERTIES File	17
build	4/4/2018 2:28 PM	XML Document	38
build_version	4/4/2018 2:28 PM	PROPERTIES File	1
deploy-int	4/4/2018 2:28 PM	PROPERTIES File	1
deploy-test	4/4/2018 2:28 PM	PROPERTIES File	1
testingtest	4/4/2018 2:29 PM	Text Document	1

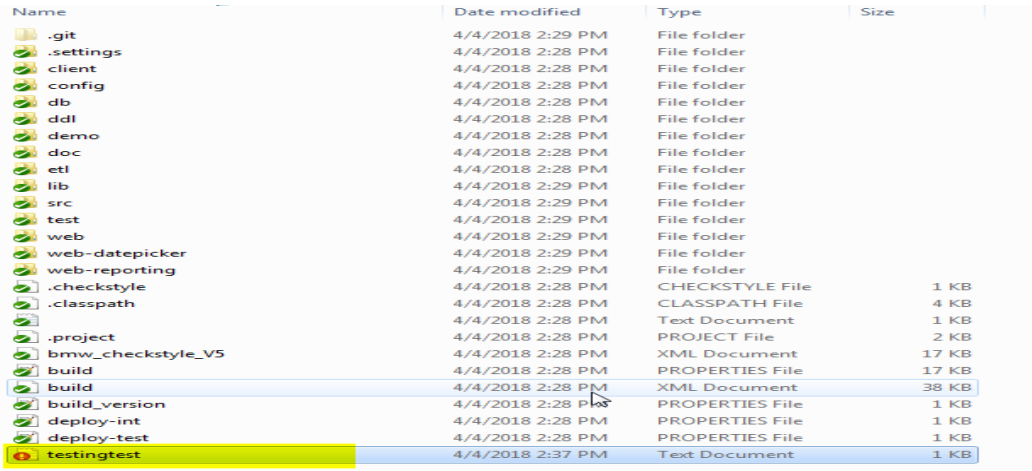
- ‘testingtest.txt’ file looks like below,



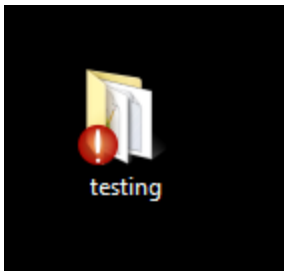
- Modified the content of the ‘testingtest.txt’ file



- Post performing changes in the file, cloned Branch folder appears as shown in below image

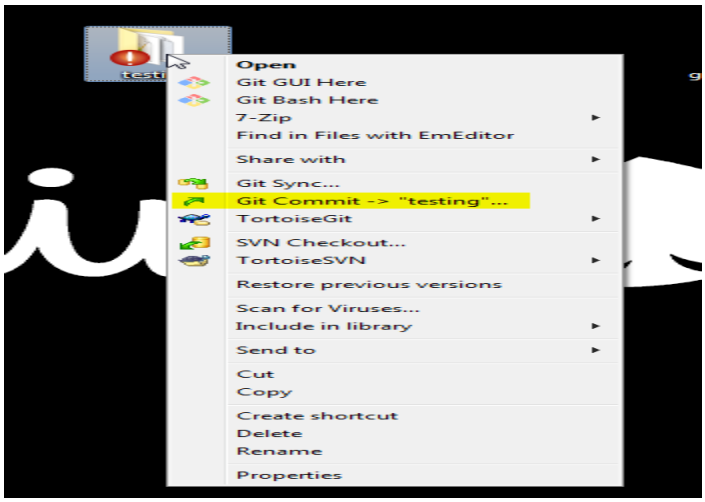


Name	Date modified	Type	Size
.git	4/4/2018 2:29 PM	File folder	
.settings	4/4/2018 2:28 PM	File folder	
client	4/4/2018 2:28 PM	File folder	
config	4/4/2018 2:28 PM	File folder	
db	4/4/2018 2:28 PM	File folder	
ddl	4/4/2018 2:28 PM	File folder	
demo	4/4/2018 2:28 PM	File folder	
doc	4/4/2018 2:28 PM	File folder	
etl	4/4/2018 2:28 PM	File folder	
lib	4/4/2018 2:29 PM	File folder	
src	4/4/2018 2:29 PM	File folder	
test	4/4/2018 2:29 PM	File folder	
web	4/4/2018 2:29 PM	File folder	
web-datepicker	4/4/2018 2:29 PM	File folder	
web-reporting	4/4/2018 2:29 PM	File folder	
.checkstyle	4/4/2018 2:28 PM	CHECKSTYLE File	1 KB
.classpath	4/4/2018 2:28 PM	CLASSPATH File	4 KB
	4/4/2018 2:28 PM	Text Document	1 KB
.project	4/4/2018 2:28 PM	PROJECT File	2 KB
bmw_checkstyle_V5	4/4/2018 2:28 PM	XML Document	17 KB
build	4/4/2018 2:28 PM	PROPERTIES File	17 KB
build	4/4/2018 2:28 PM	XML Document	38 KB
build_version	4/4/2018 2:28 PM	PROPERTIES File	1 KB
deploy-int	4/4/2018 2:28 PM	PROPERTIES File	1 KB
deploy-test	4/4/2018 2:28 PM	PROPERTIES File	1 KB
testingtest	4/4/2018 2:37 PM	Text Document	1 KB



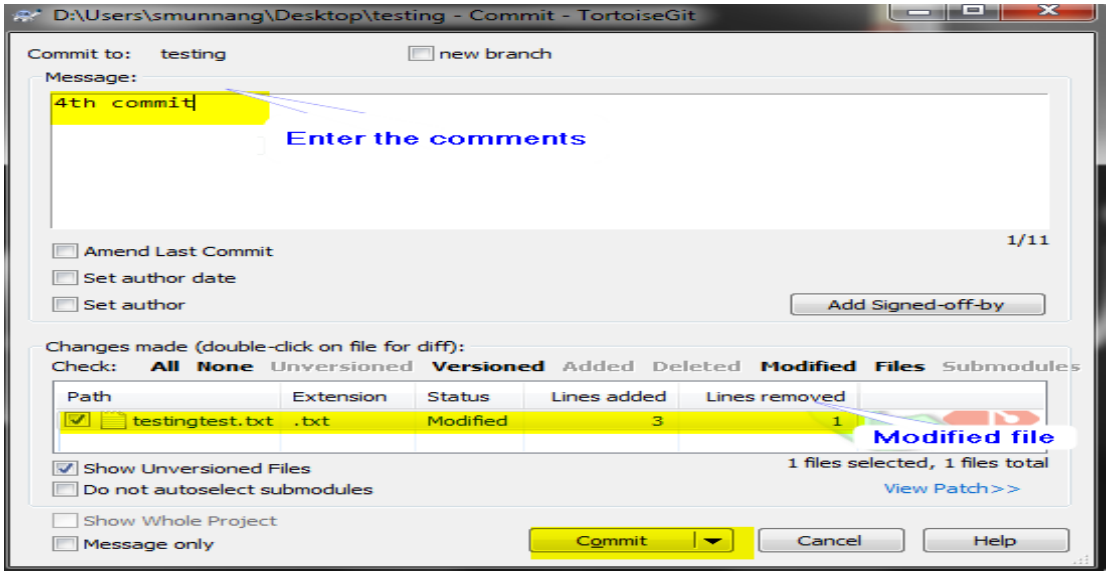
- Before committing the changes to the Remote Git Repository, see the file ‘testingtest.txt’ as shown below

- To commit the changes made in Branch, right click on cloned Branch folder. Go to →Git Commit

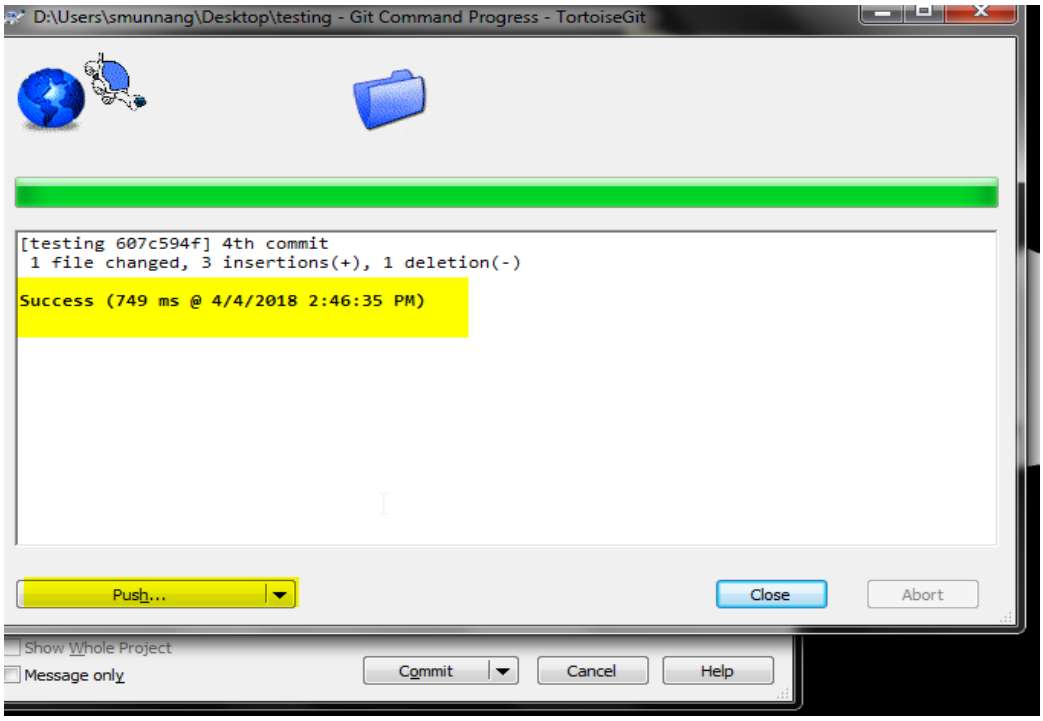


- Enter comments under ‘Message’ and you can view the changed files list at the bottom of the window as shown below,

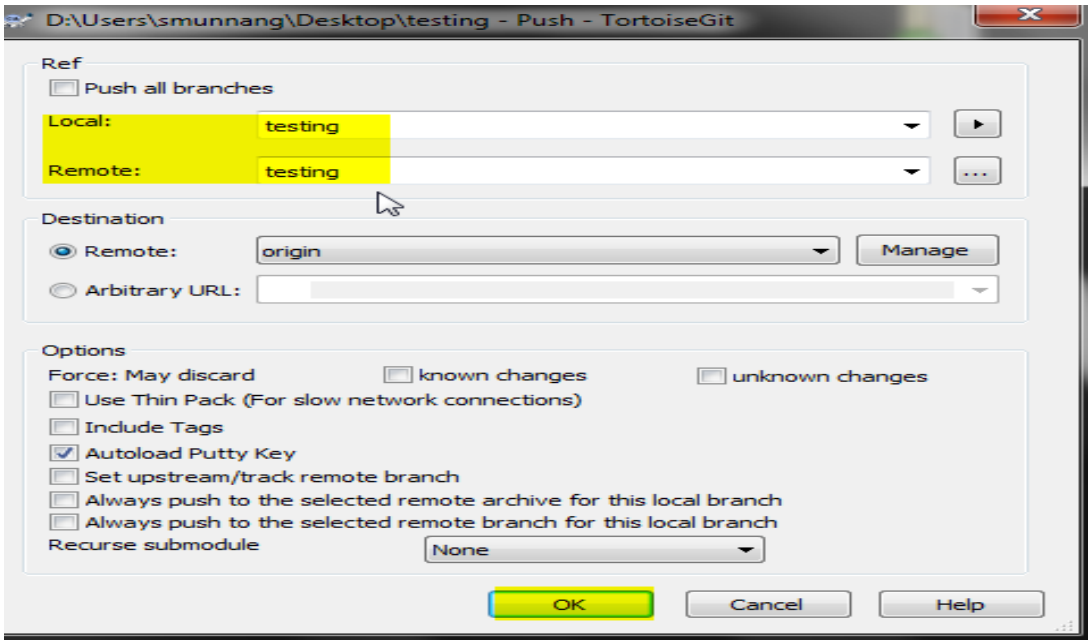
  Click on ‘Commit’



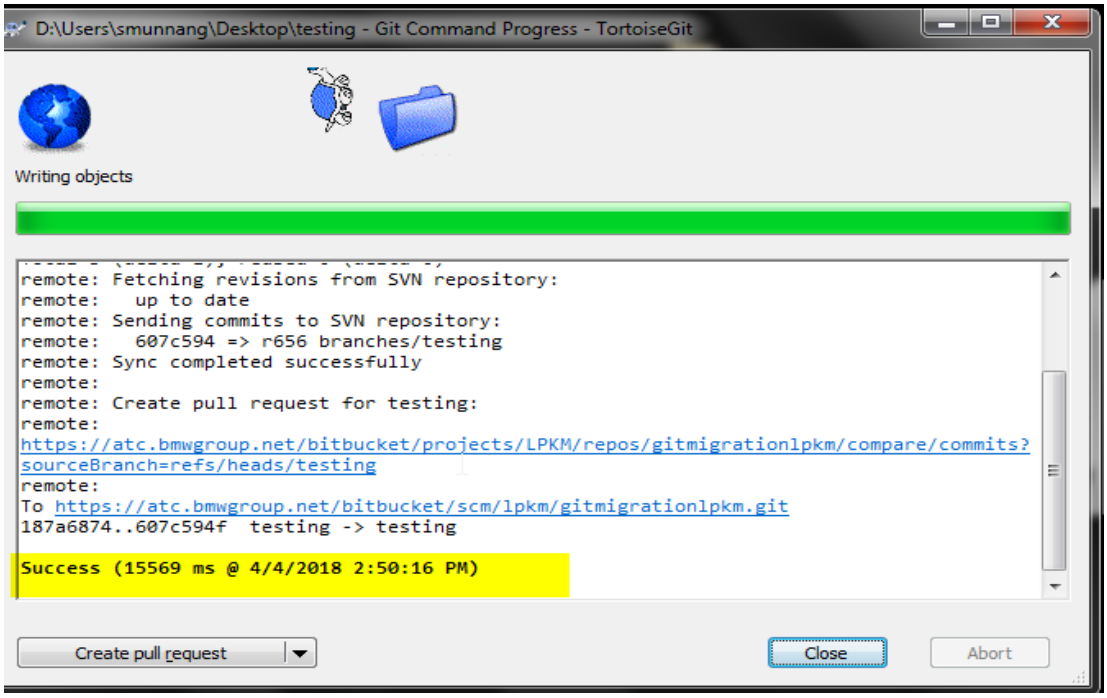
- The below screen appears post commit of changes. Click on ‘Push’ so that changes will be pushed to Branch of Git repository.



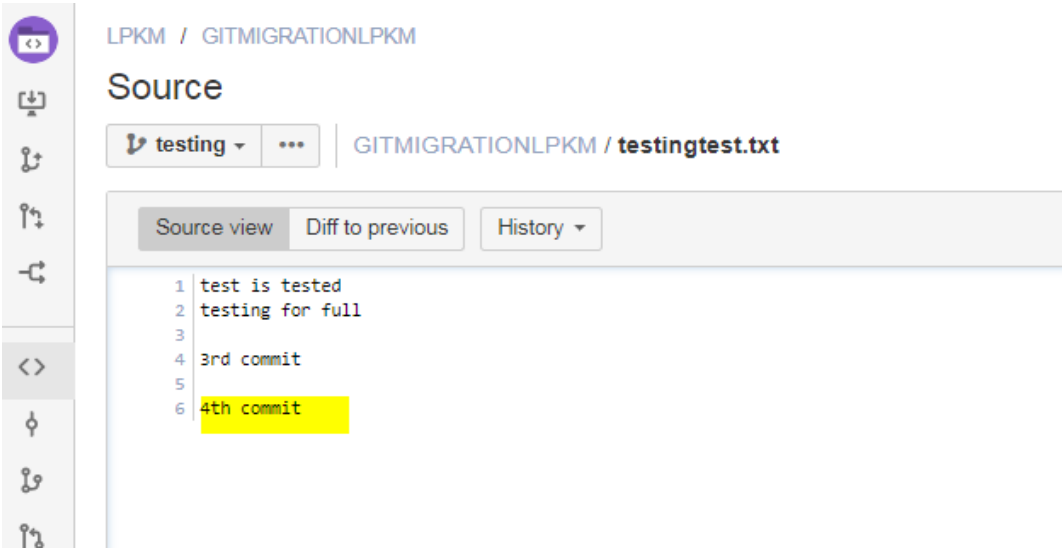
- The below screen appears. Click on ‘OK’



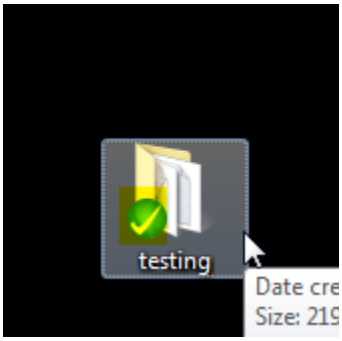
- Then success message appears once the push request is fulfilled.



- Check the testingtest.txt' file in the branch of Git repository to see the changes



- Post commit of the changes in the branch, cloned branch folder appears as in below image



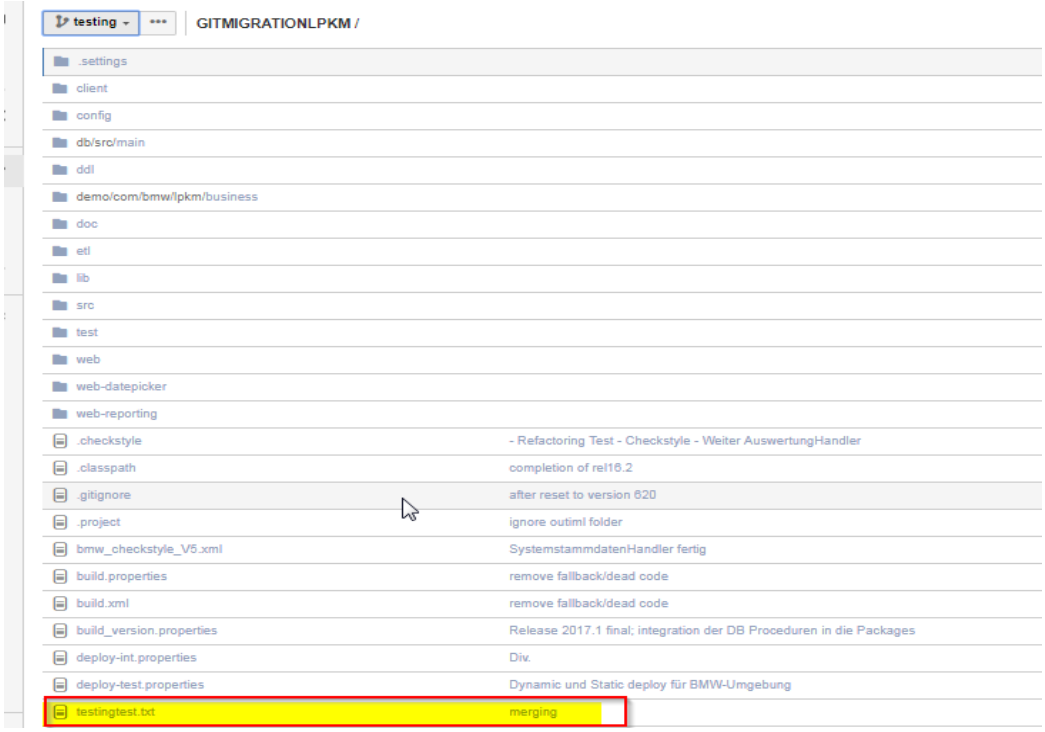
3.3 Merge

Note :

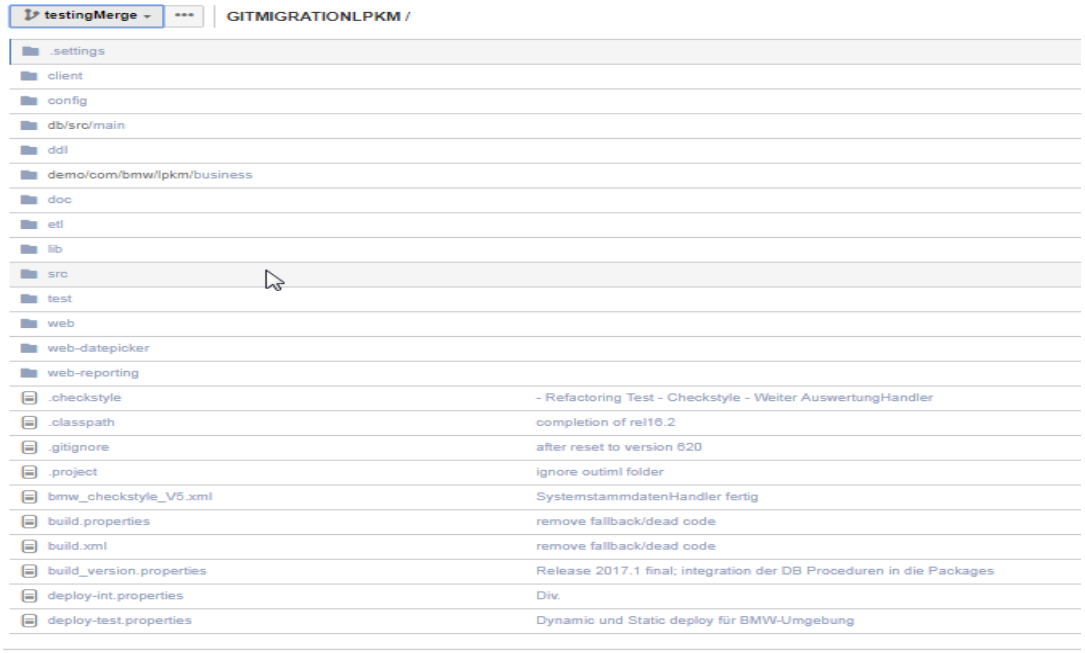
- In general, Git repository has an option to sync with SVN
- **To 'Merge' the Branches, the sync option in Git repository should be disabled**

Merge of 'testing' Branch with 'testingMerge' Branch

1. Refer the below screenshot for the contents of '**testing'** Branch in Git repository with 'testingtest.txt' file.

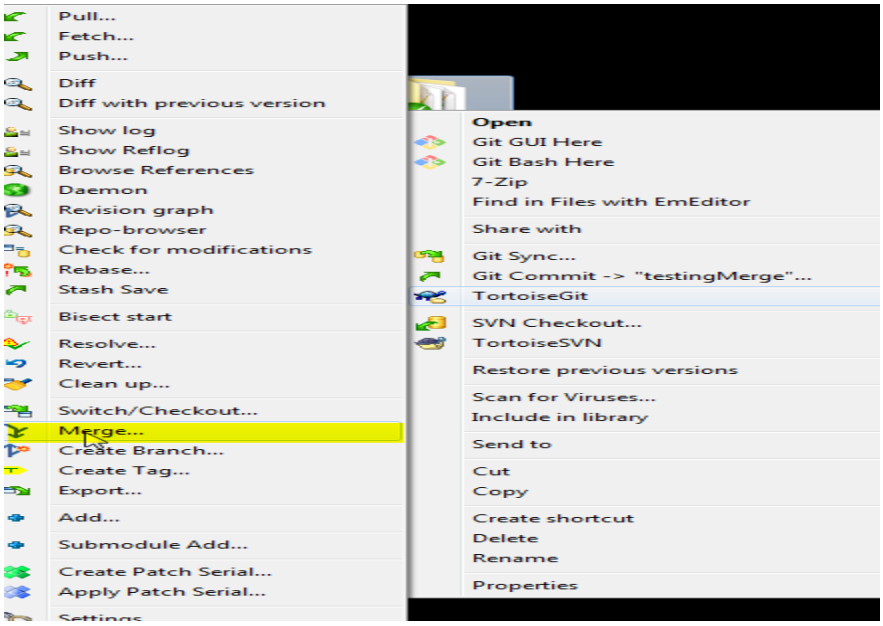


2. Refer the below screenshot for the contents of ‘**testingMerge’** Branch in Git repository without ‘testingtest.txt’ file.

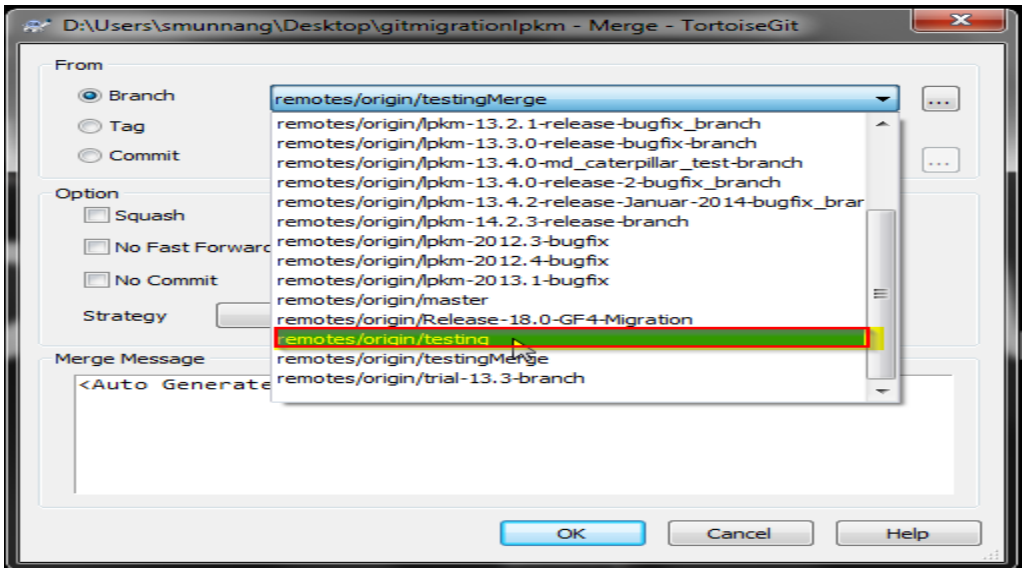


3. Right click on the cloned Branch[‘**testingMerge’**] and

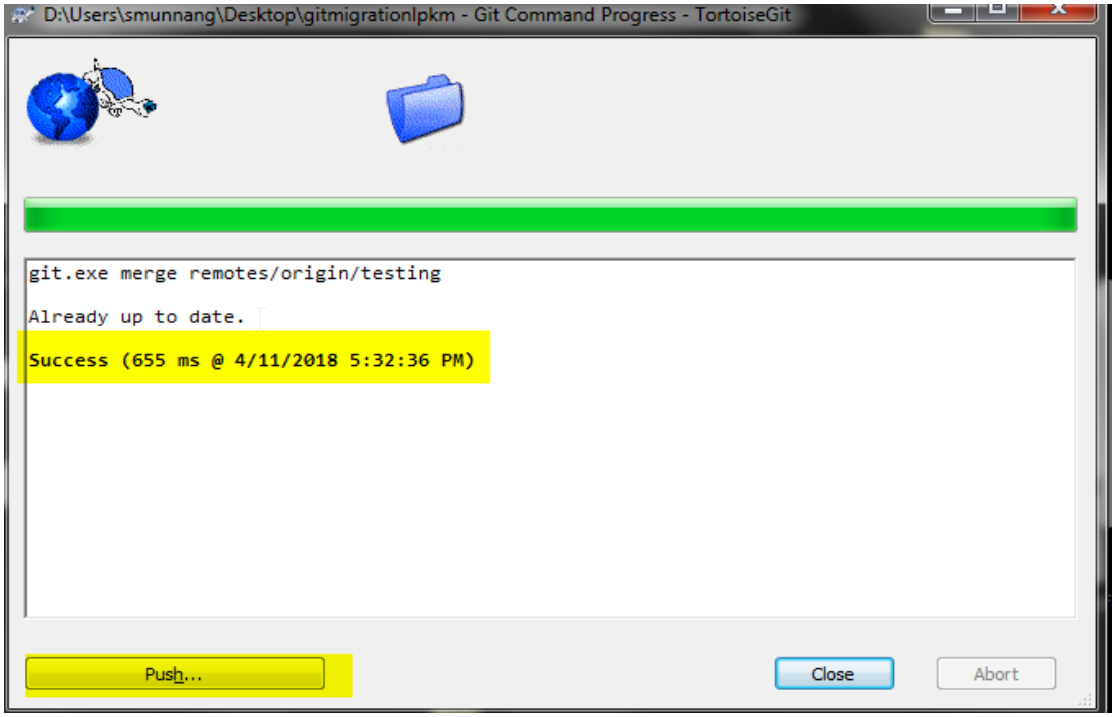
   Go to →TortoiseGit →click ‘Merge’



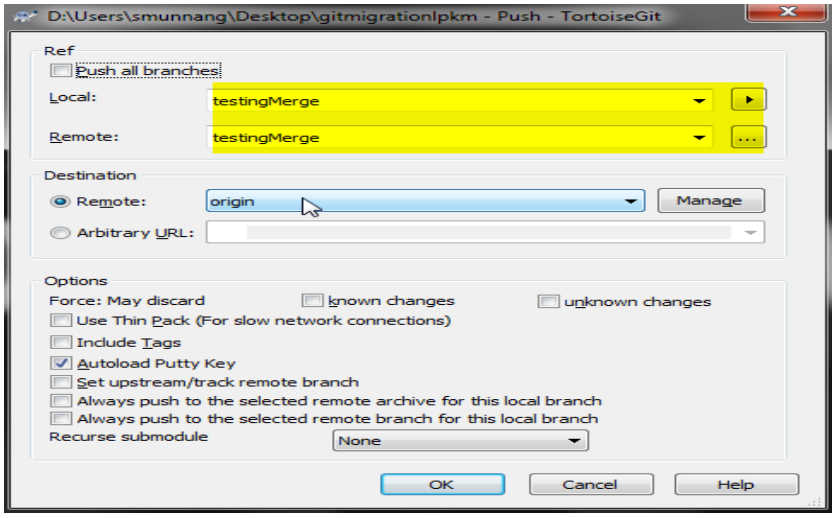
4. Select the ‘**testing’** Branch and click on ‘OK’



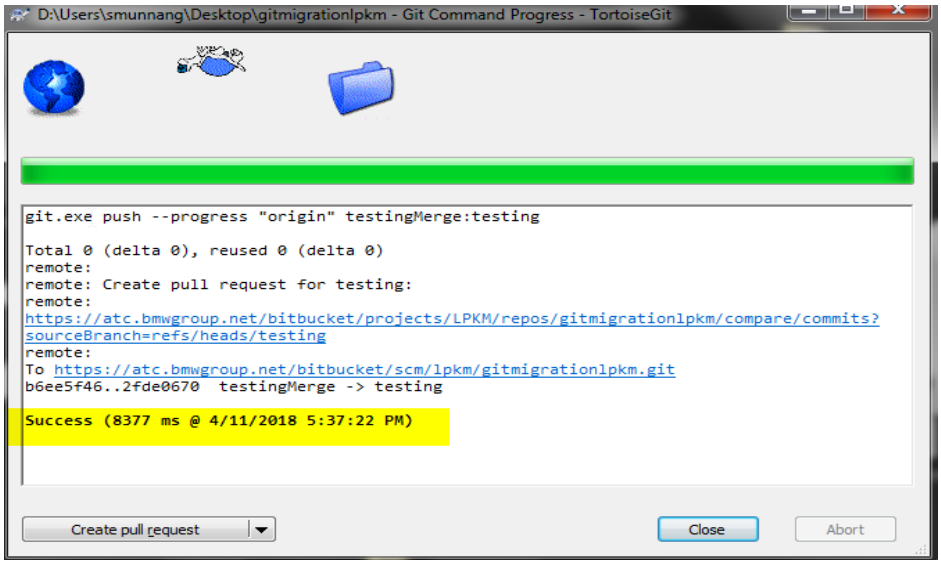
5. Then click on ‘Push’



6. Select ‘Local’ & ‘Remote’ as ‘**testingMerge’** Branch and click on ‘OK’



7. Success message appears as in below screenshot
‘



8. Now the ‘testingtest.txt’ file of ‘**testing’** Branch is merged into ‘**testingMerge’** Branch in Git repository