GIT BASIC COMMANDS, INSTALLATIONS AND PROBLEMS SOLUTION
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How to install Git in windows?

- 1.download in windows
- 2.search git gui
- 3.in git gui click help
- 4.click show ssh key
- 5.click generate key
- 6.hit enter
- 7. hit enter

How to install Git in mac?

- download git in mac
- give permission to install git from privacy (open terminal > security & privacy)
- finish install.
  Add ssh key in github
- generate key: ssh-keygen -t rsa
- hit enter and enter any phrase (to make things easy enter your computer password)
- hit enter (re enter the same phrase again)
- it will create a file name id_rsa
- Copy the id_rsa path then open any browser > paste it in the url bar
  (EX: /Users/abcd/.ssh/id_rsa)
- Remove id_rsa > hit enter (there should be 2 link id_rsa and id_rsa.pub)
- select id_rsa.pub (this is they key that needs to be added in gitHub)
- then add in github.

How to create a new directory, file and edit the file by using Git/Linux command?

pwd- Present working directory.

cd-   Change directory.

cd desktop-   Change your directory to that folder/place (in here I wrote command for desktop) where you want to create the directory.

mkdir directoryname(Ex: mkdir test)- Next you have to make a directory.

cd directoryname(Ex: cd test)- Go to the directory that you created.

pwd- Present working directory, to check if you are in the right directory or not.

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ls- ls is a command to see the list of computer files in the directory.

touch filename-(Ex: touch linuxcommand.txt)- Touch command is used to create, change and modify time stamps of a file.

ls- to check the files that you created by using touch command.

nano filename(Ex: nano linuxcommand.txt)- nano is a small, free and friendly editor. You can use it to edit any file. To save nano file hit CONTROL+X and then Y and then hit ENTER.

cat filename(Ex: cat linuxcommand.txt)- It will show the content of the file that you created.

(Summary: By using the above code you will see, there will be a (test) folder created (in this case in the desktop) and inside of the folder there will be a test.txt file created. Also, you will see the contents inside of the test.txt file which you wrote by the nano command.)

How to add any project or file to a new repository in Github for the firstime?

There are several steps that we will follow:

go to repository/project label-> cd foldername (Ex: cd->cd dektop->cd project cloned folder name)

git init: To initialize the repository.

git add -A OR git add - - all or git add . : Add files to the repository.

git status- To see the change/modify/update/commit that you made.

git commit -m "any comment"- The "commit" command is used to save your changes to the local repository. Exchanging commits has to be performed manually and explicitly (with the "git fetch", "git pull", and "git push".

git remote add origin https://github.com/mosud999/testing.git- To add a new remote, use the git remote add command on the terminal, in the directory your repository is stored at.
The git remote add command takes two arguments:
  ➢ A remote name, for example, origin
  ➢ A remote URL, for example, https://github.com/user/repo.git

git push –u origin branchname(Ex: git push –u origin master)- git push command is used to upload local repository content to a remote repository. The -u option automatically sets that upstream for you,

linking your repo to a central one. That way, in the future, Git "knows" where you want to push to and where you want to pull from, so you can use git pull or git push without arguments.

How to clone, modify and push modified files into a new branch?

cd- Change directory.

cd desktop- Change your directory to that folder/place (in here I wrote command for desktop) where you want to create the directory.

git clone url (Ex: git clone https://github.com/mytest999/testing)- git clone is a Git command line utility which is used to target an existing repository and create a clone, or copy of the target repository.

cd gitclonerepo(Ex: cd btc1018)- to go to this repo in your local computer.

Modify the data and then create a new branch to push the modified data into it.

git branch branchname(Ex: git branch test)- To create a new branch you have to type your own branch name in it.

git branch- Then to check/see which branches are available give this command.

git checkout branchname(Ex: git checkout test)- To enter into the new branch you have to use it.

git branch- Then hit git branch to see if you are in the right branch or not.

git add -A OR git add - -OR all or git add . : Add files to the repository.

git status- to see the change/modify/update that you made.

git commit -m "any comment"- The "commit" command is used to save your changes to the local repository. Exchanging commits has to be performed manually and explicitly (with the "git fetch", "git pull", and "git push".

No need to pull as we are pushing first time to the new branch.

git push –u origin branchname(Ex: git push –u origin master)- git push command is used to upload local repository content to a remote repository.

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How to clone a project from Github?

cd- Change directory.

cd desktop- Change your directory to that folder/place (in here I wrote command for desktop) where you want to create the directory.

git clone url (Ex: git clone https://github.com/mytest999/testing)- git clone is a Git command line utility which is used to target an existing repository and create a clone, or copy of the target repository. When you clone basically it cloned to all master data file. After that when you switch to your personal remote branch it will automatically update the contents in the local repository same as your personal branch. **For cloning,** you always have to give the link for the repository not the exact git file. Example: https://github.com/mytest999/testing.git not this one ->https://github.com/mosud999/testing.

How to import a clone project in Eclipse for modifying?

First clone the project from github and then import the cloned project in Eclipse by using the following instructions:

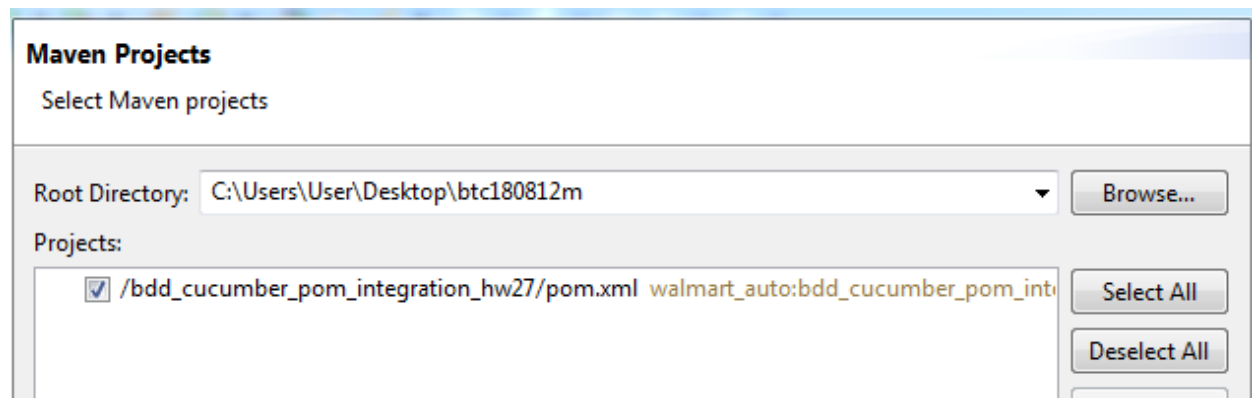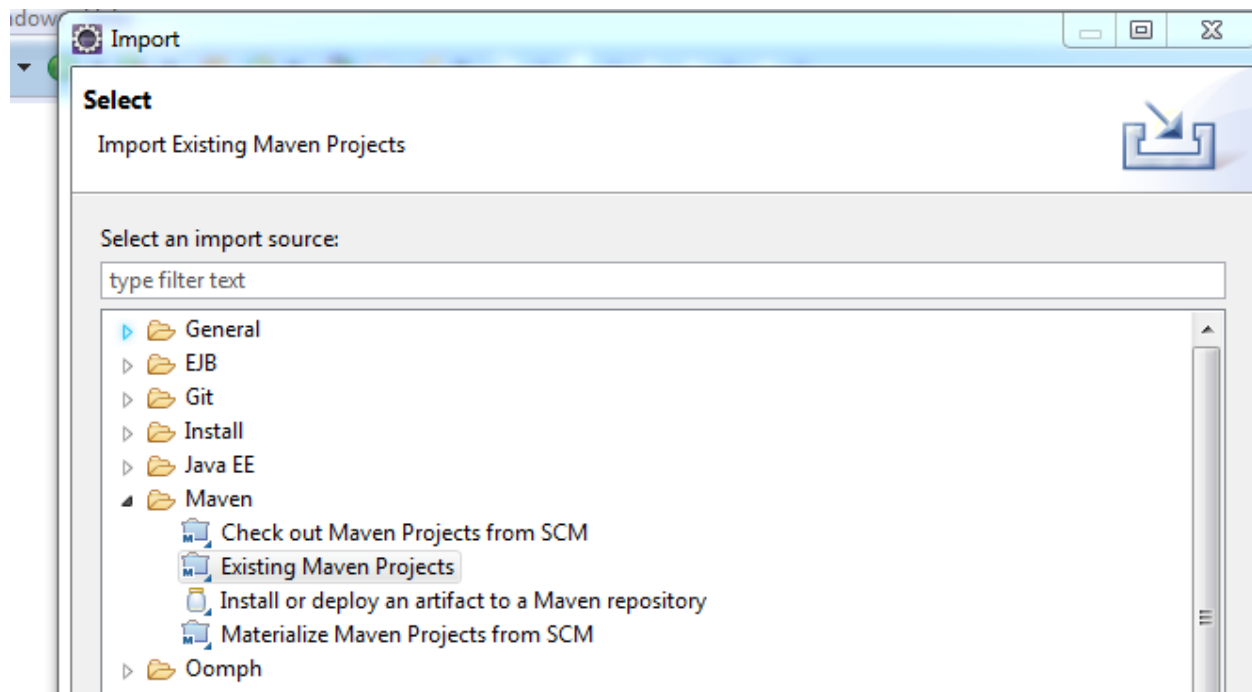**(For maven project)->File ->Import->Maven inside->Existing Maven Projects->Give the local directory**

->Finish

See images below:

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Import

Select

Import Existing Maven Projects

Select an import source:

type filter text

- ▷ 📂 General
- ▷ 📂 EJB
- ▷ 📂 Git
- ▷ 📂 Install
- ▷ 📂 Java EE
- ▲ 📂 Maven
  - 🖼 Check out Maven Projects from SCM
  - 🖼 Existing Maven Projects
  - 🗊 Install or deploy an artifact to a Maven repository
  - 🖼 Materialize Maven Projects from SCM
- ▷ 📂 Oomph

Maven Projects

Select Maven projects

Root Directory: C:\Users\User\Desktop\btc180812m   Browse...

Projects:

☑ /bdd_cucumber_pom_integration_hw27/pom.xml walmart_auto:bdd_cucumber_pom_int   Select All

Deselect All

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How to push any clone modified project or file to Github?

go to repository label-> cd foldername (Ex: cd->cd dektop->cd project cloned folder name)

git init: Initialize the repository if it is not initialized.

git add -A OR git add - -OR all or git add . : Add files to the repository.

**git status-** to see the change/modify/update that you made.

git commit -m "any comment"- The "commit" command is used to save your changes to the local repository. Exchanging commits has to be performed manually and explicitly (with the "git fetch", "git pull", and "git push".

git pull origin branch name (Ex: git pull origin master)- A git pull is what you would do to bring a local branch up-to-date with its remote version, while also updating your other remote-tracking branches.

 git push –u origin branchname(Ex: git push –u origin master)- git push command is used to upload local repository content to a remote repository.

How to create your own branch in Github?

First clone git project from Github. For cloning copy the link of you project in Github. See image below:
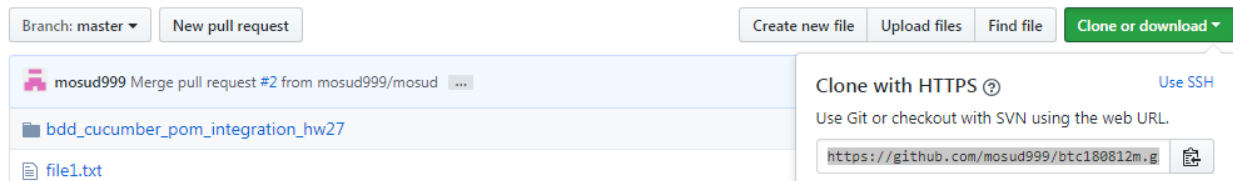
Then clone the project to your local system.

cd-   Change directory.

cd desktop-   Change your directory to that folder/place (in here I wrote command for desktop) where you want to create the directory.

git clone url- Give the url of your project. git clone is a Git command line utility which is used to target an existing repository and create a clone, or copy of the target repository. When you clone basically it

cloned to all master data file. After that when you switch to your personal remote branch it will automatically update the contents in the local repository same as your personal branch. **For cloning** you always have to give the link for a repository not the exact git file. Example: https://github.com/mytest999/testing not this one ->https://github.com/mosud999/testing.git.

cd btc180812m(Local git repository)-change the directory to your local Git directory.

 git branch OR git branch -a to check/see which branch currently available.

git branch branchname OR git branch –b branchname (Ex: git branch test)- To create a new branch you have to type your own branch name in it.

git branch- Then to check/see which branches are available give this command.

git checkout branchname(Ex: git checkout test)- To enter into the new branch you have to use it.

git branch- Then hit git branch to see if you are in the right branch or not.

(Note: Switching to a master branch means you can see the original files which are in the master branch. If you do any modification and keep the modified file in your personal branch then, when you switch to it, you will see the modified contents of that branch.)

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How to export a project from Eclipse?

File->Export->General->File system->Browser directory->Finish
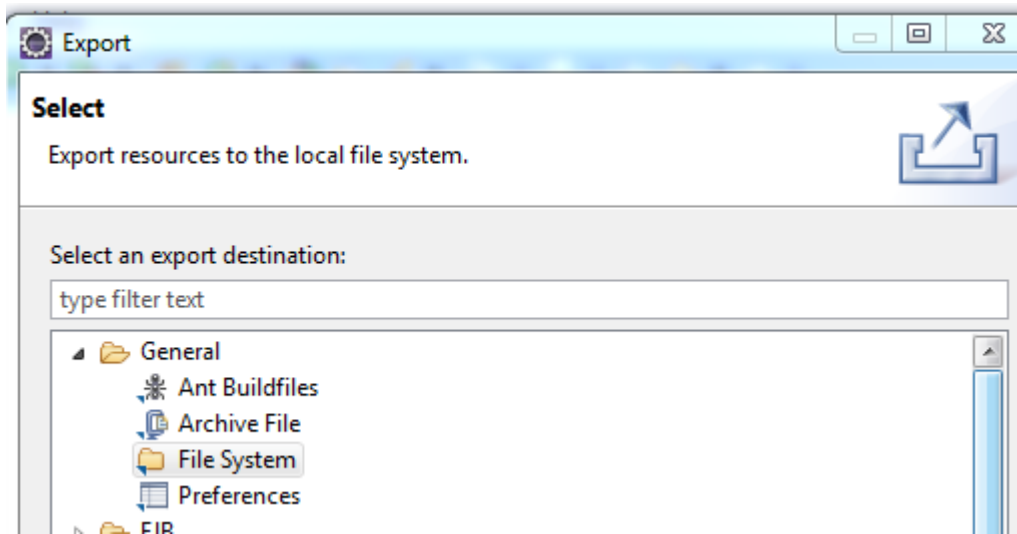
See Images:
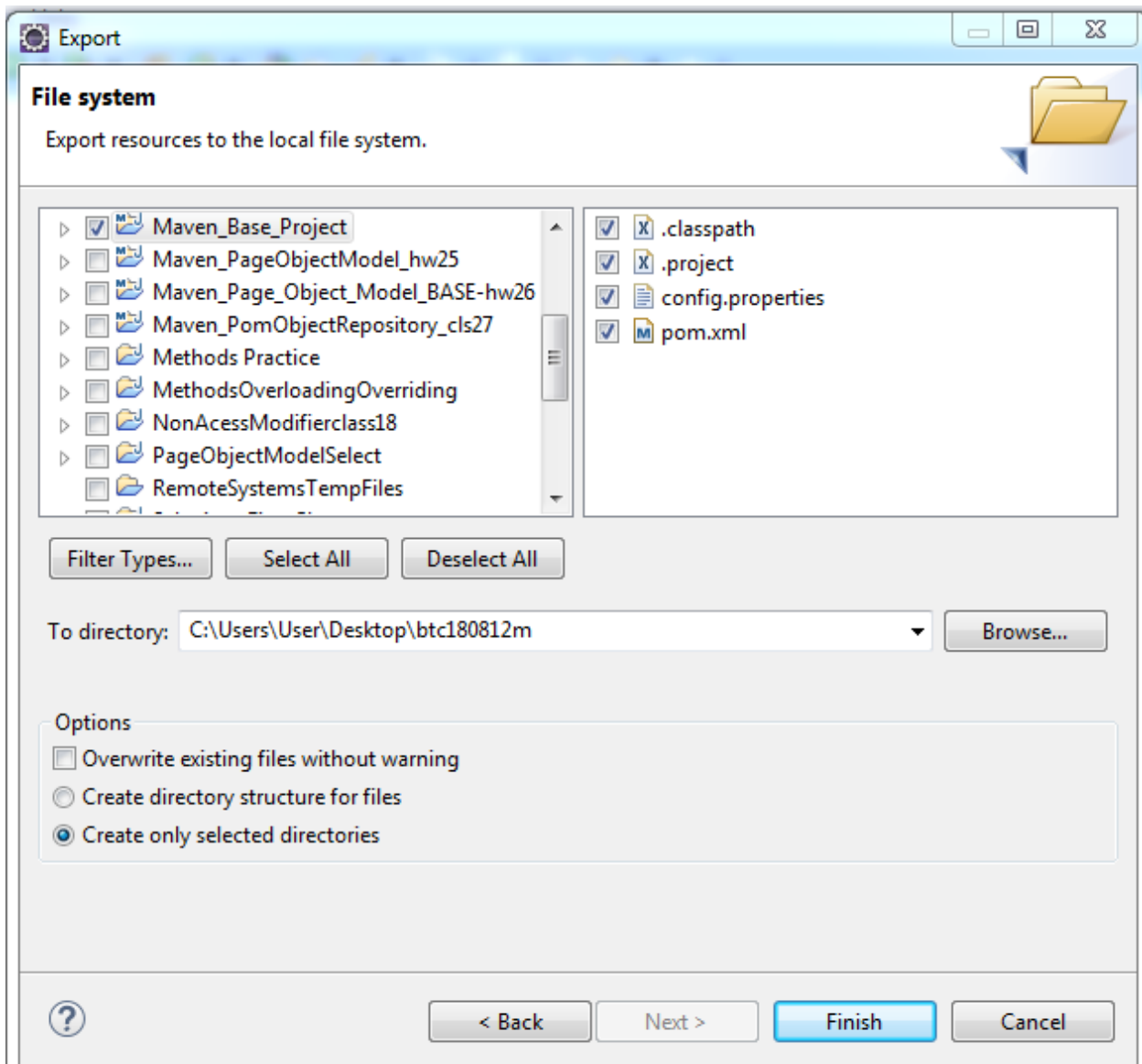
How to merge two branches?

First clone the master branch files. Modify the files and create a new branch. Then push this to a new branch. For merging you always have to switch the base branch where you want to merge your modified codes. Then follow the following process:

git checkout master- to go in master branch which is base branch in here.

git merge branchname(Ex: git merge new)- Then you can merge with your new branch.

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** if you get the commit black screen just type **:wq** then hit **Enter******

git pull origin master- to pull the update from master branch.

git push OR git push –u origin master- which will push in to the current selected branch.

How to delete a branch in your local computer?

To delete a branch you have to switch to another branch. For example if you want to delete test branch we have to switch to master branch. Then follow the steps below:

git checkout master- to delete a branch we have to move to another branch.

git branch –d branchname(Ex: git branch –d test)

git branch-

If you want to remove any remote branch you have to go github and then click branch and then delete the branch.

Common Problems and Solutions

- ➢ **Problem:**
  fatal: 'origin' does not appear to be a git repository

  fatal: The remote end hung up unexpectedly

- ➢ **Cause:**
  This is typically because you have not set the **origin** alias on your Git repository.

- ➢ **Solution:**
  To resolve, do the following:
  git remote add origin URL_TO_YOUR_REPO

  This will add an alias in your .git/config file for the remote clone/push/pull site URL. This URL can be found on your repository Overview page.

- ➢ **Problem:**
  fatal: not a git repository (or any of the parent directories): .git.

  Cause:

  Did not initialize the repository.

  Solution:

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git init – to initialize the repo.

➢ **Problem:**
error: pathspec 'mosud' did not match any file(s) known to git

Cause:
If <branch> is not found but there does exist a tracking branch in exactly one remote (call it <remote>) with a matching name.

Solution:
git checkout -b branchname (create and move to the branch together)

➢ **Warning:**
LF will be replaced by CRLF in git - What is that and is it important?

In Unix systems the end of a line is represented with a line feed (LF). In windows a line is represented with a carriage return (CR) and a line feed (LF) thus (CRLF). When you get code from git that was uploaded from a unix system they will only have an LF.If you want to turn this warning off, type this in the git command line:

git config core.autocrlf true