**Master SpringBoot**

**00-Manage GitHub:**

**Create a SpringBoot Project with required Dependencies**

**1. Create Project in** [**https://start.spring.io**](https://start.spring.io) **and Import to Eclipse**

**- Spring Boot starter web**

**- Sprint Boot Dev Tools**

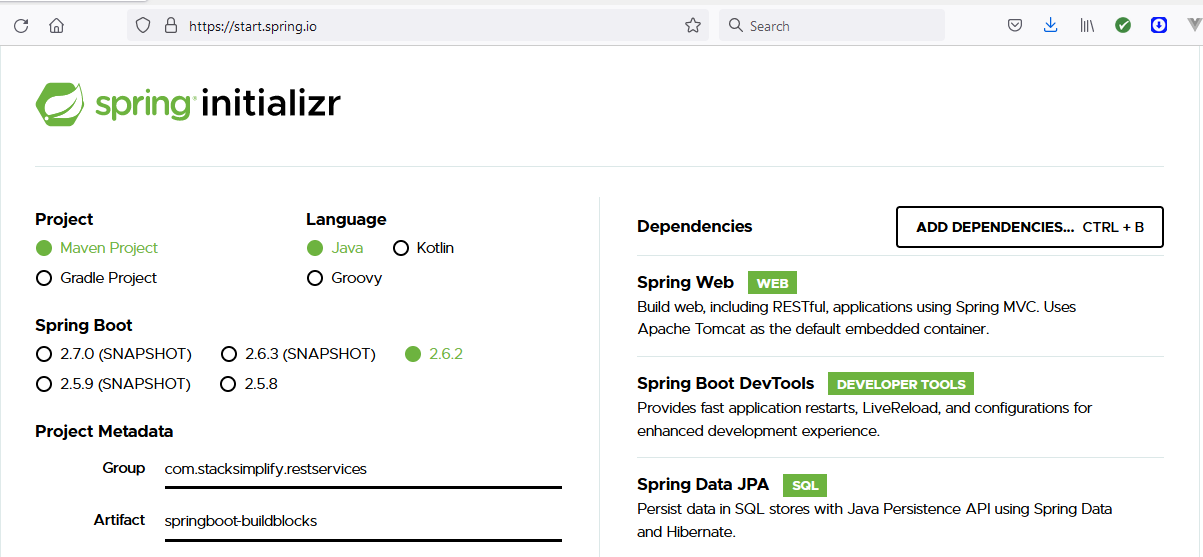
**- Sprint Data JPA**

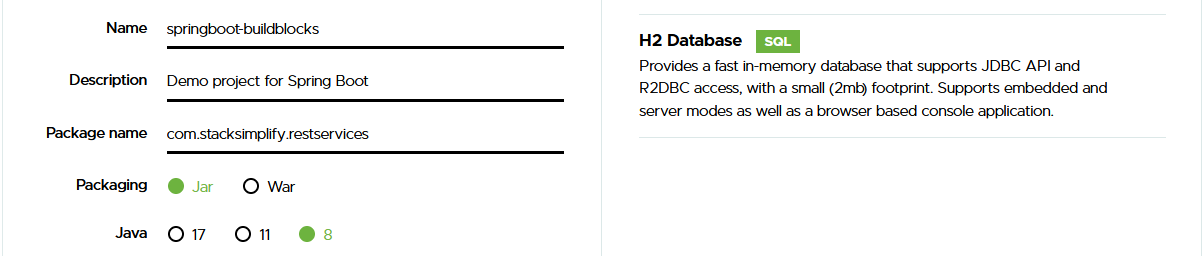
**- H2 Database**

**2. Verify Dependencies in pom.xml**

**3. Run the app / Start the App as Spring Boot App and verify if it comes up.**

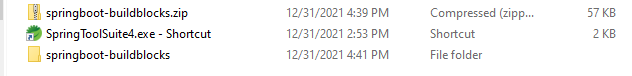
[**https://start.spring.io**](https://start.spring.io)



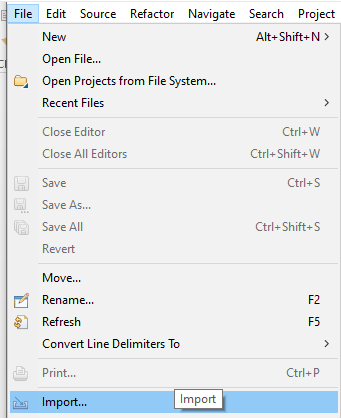


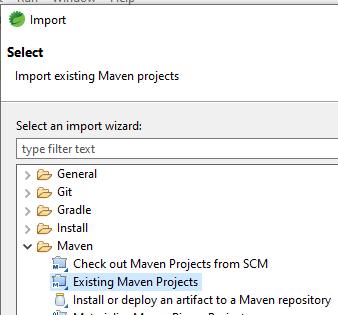
**Generate the Project**

**Download the zip and extract it:**

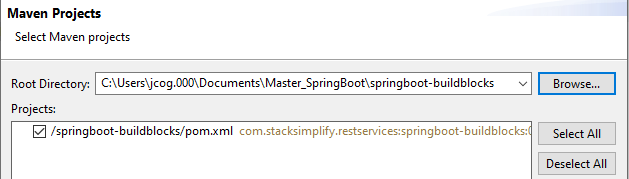


**Import into eclipse:**

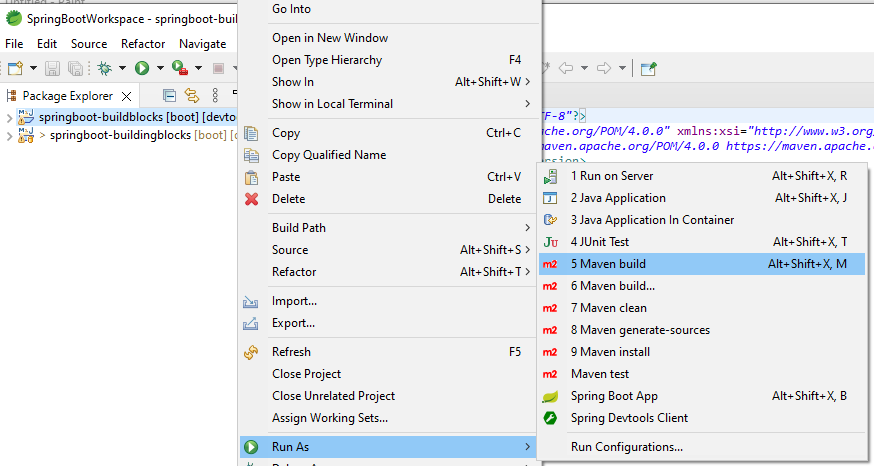




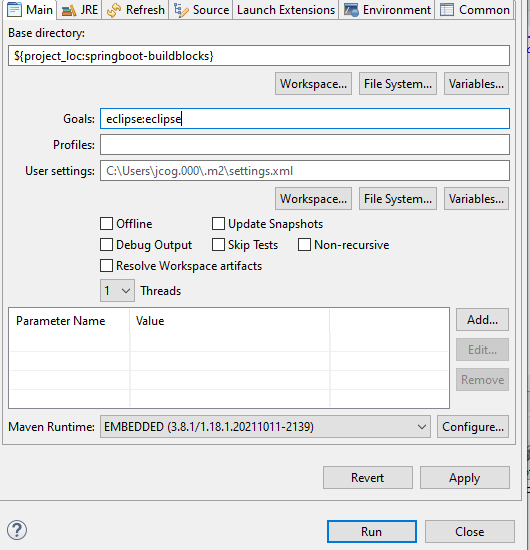
**Browse and find the Project**



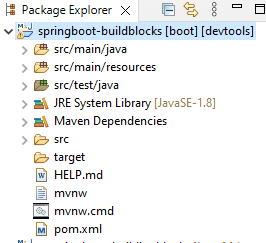
**Run as a maven build to help import the jars:**



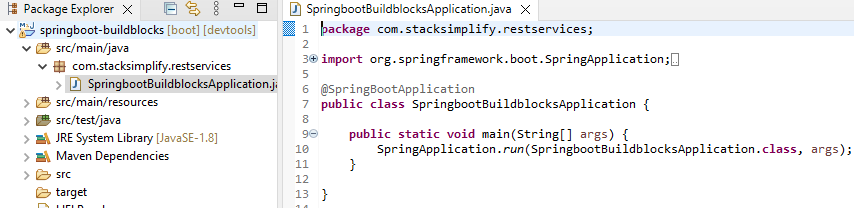
**Build Goal eclipse:eclipse**



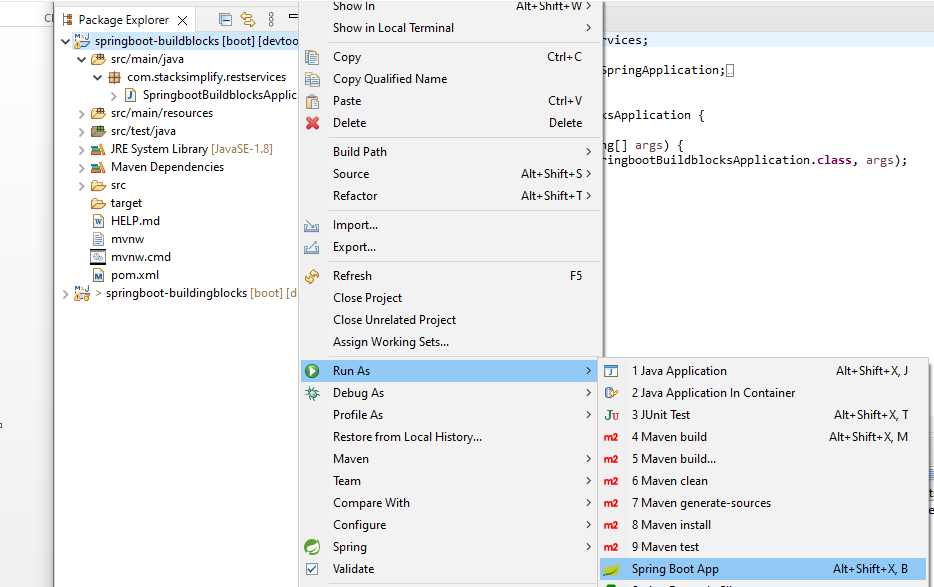
**Project Displayed:**



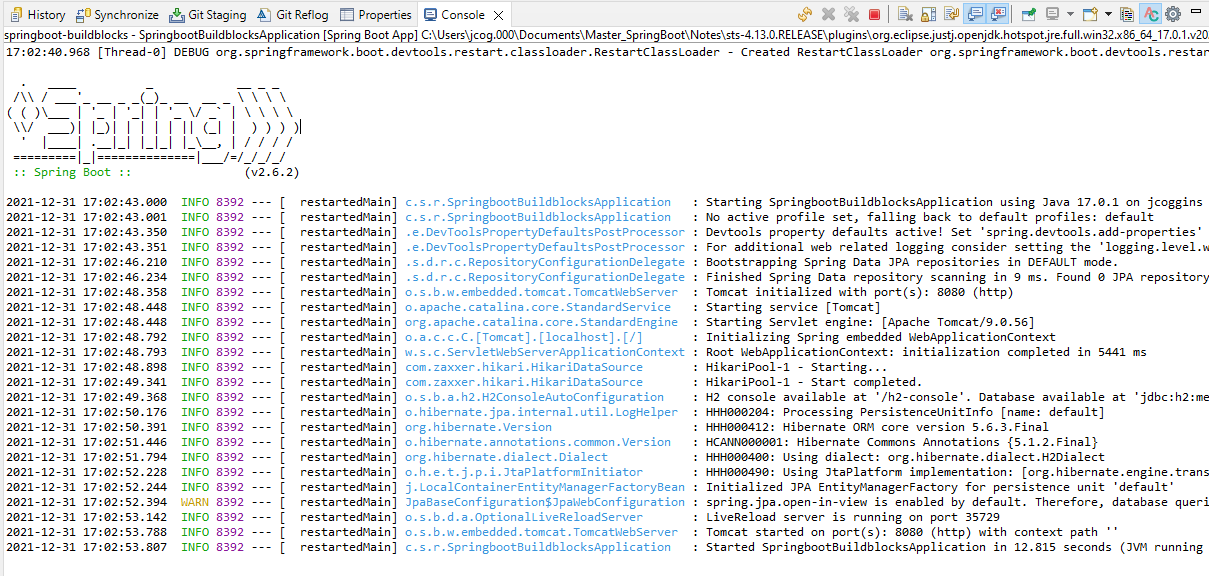
**Look at the Spring Boot Driver:**



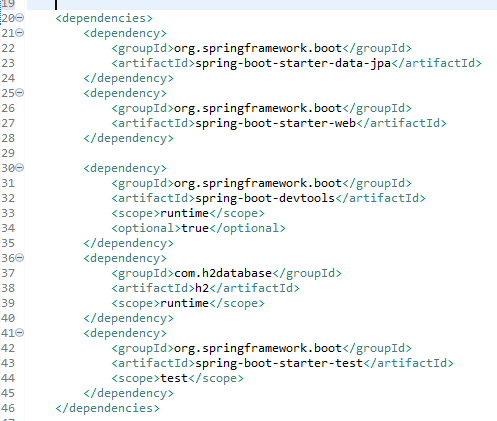
**Start application as Spring Boot App**



**Spring Boot App started on the last line of the stack:**



**Let us validate the pom dependencies:**



**JPA, Web, DevTools, H2 and the starter test code that comes by default:**

**Now, let us use the GitHub commands and manage the project:**

**GIT Repository:** [**https://github.com/stacksimplify**](https://github.com/stacksimplify)

**For every major step, we follow below steps from GIT perspective.**

**1. Checkout code to new branch from master**

**2. Make changes or add code**

**3. Commit code to local branch**

**4. Push code to remote branch**

**5. Checkout to master**

**6. Merge to master**

**7. Push code to remove master**

**Base Setup – Steps**

**1. Create a project on github**

**Master Branch**

**2. Initiate Local Repository**

**3. Create master branch**

**4. check-in code**

**5. Add GIT Remote origin**

**6. Push code to remove branch**

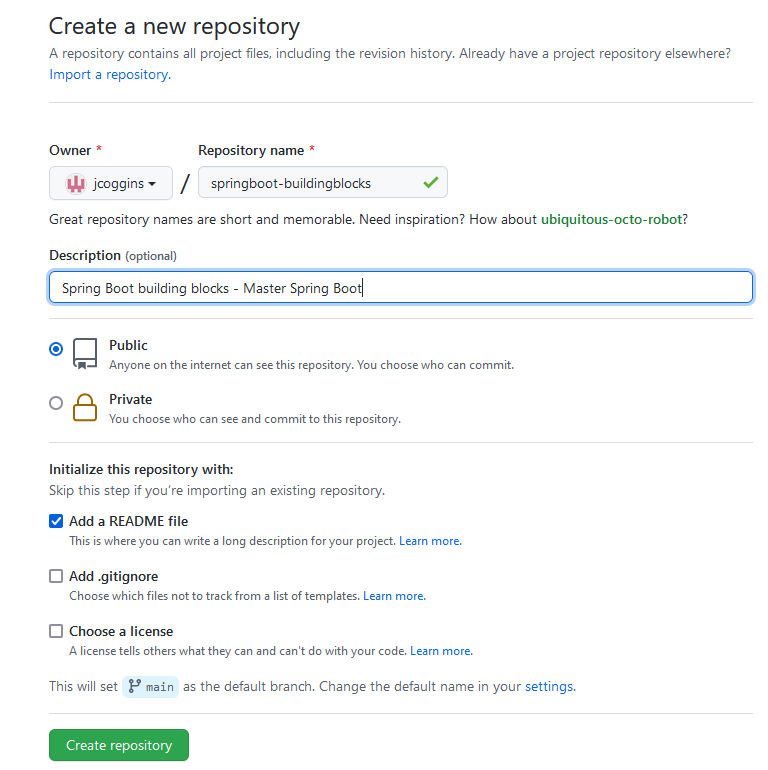
**01-ground-zero branch**

**7. Create 01-ground-zero branch**

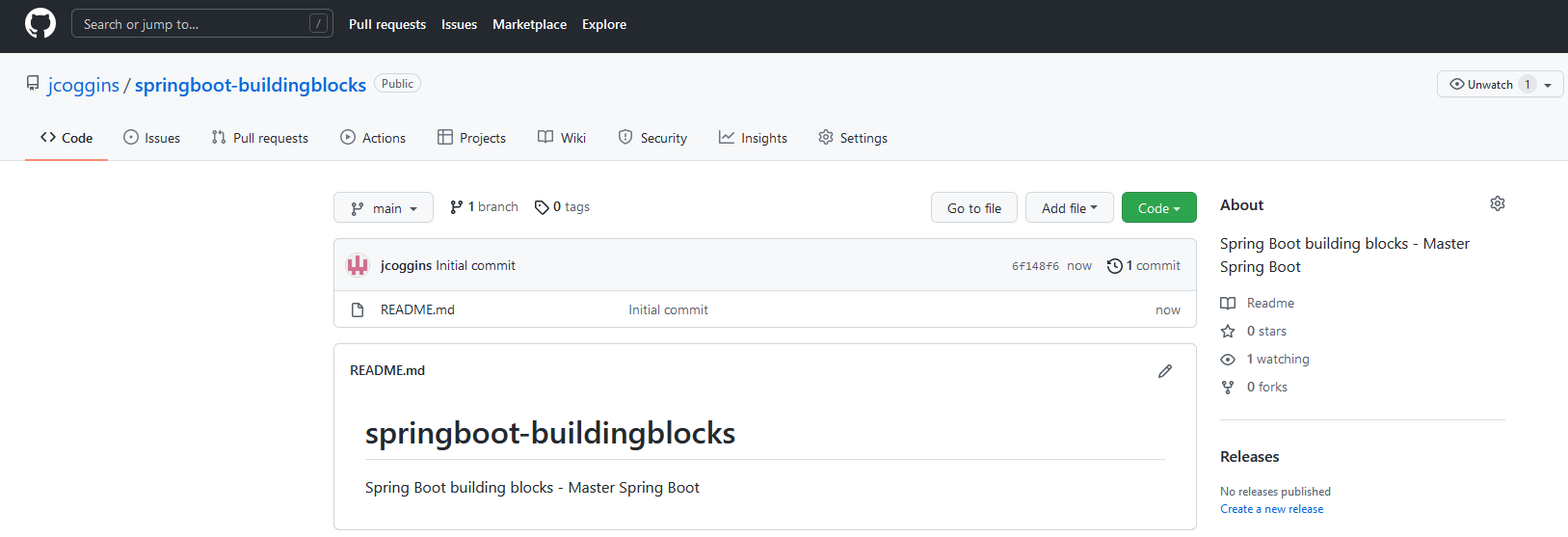
**8. Push code to remove branch**

**Add Repo to IDE GIT Perspective**

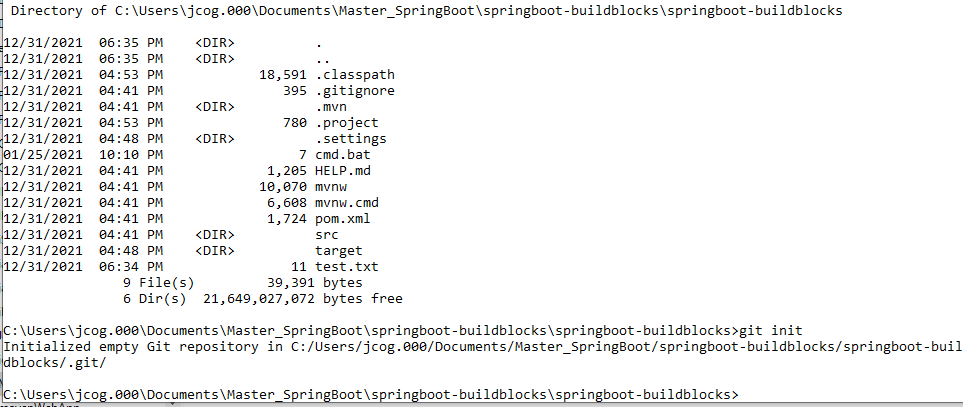
**9. Add this git repository on STS IDE GIT Perspective and Verify**



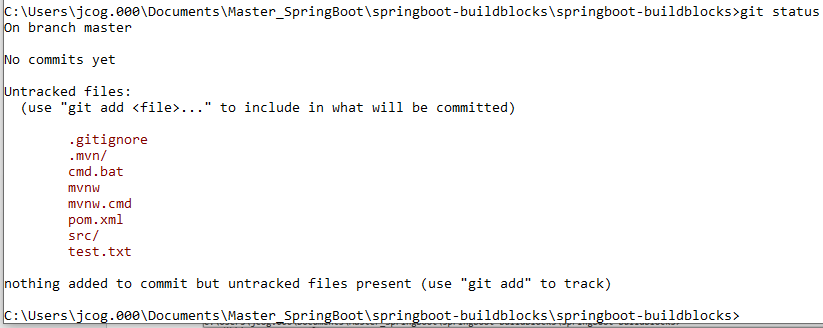
**Select Create**



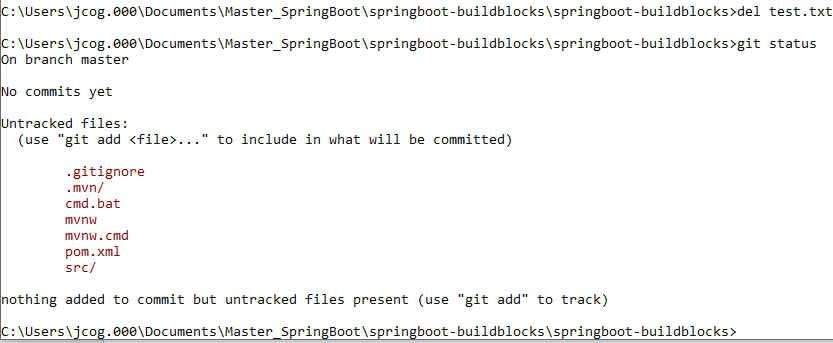
**Initializing the Project folder as a git repo: (Notice the cmd.exe file location)**



**Check git status**



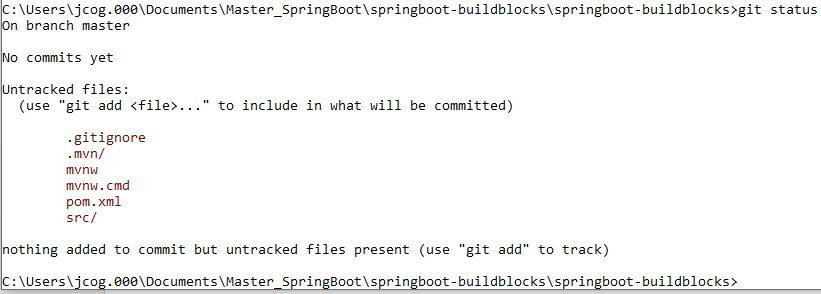
**Delete test.txt:**



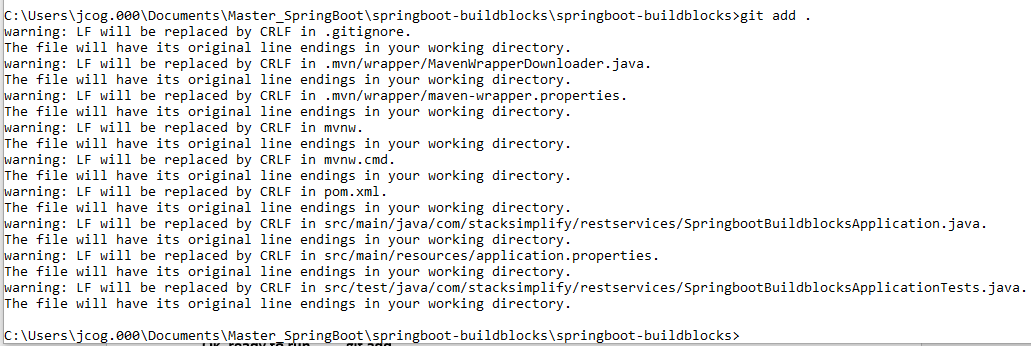
**Add cmd.bat to the gitIgnore list:**



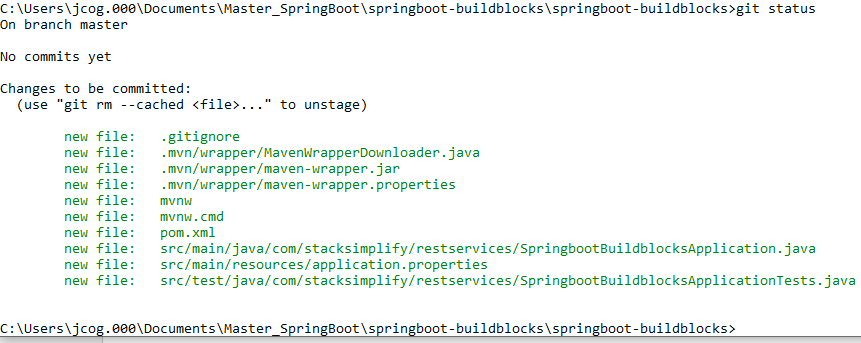
**Rerun git status:**



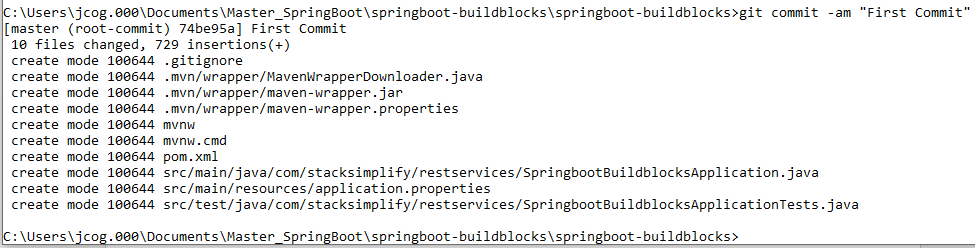
**Ok, ready to run git add .**



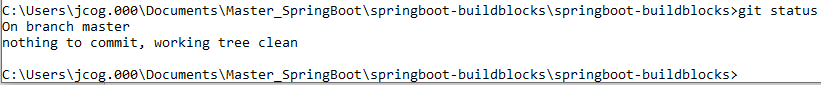
**Now, run git status**



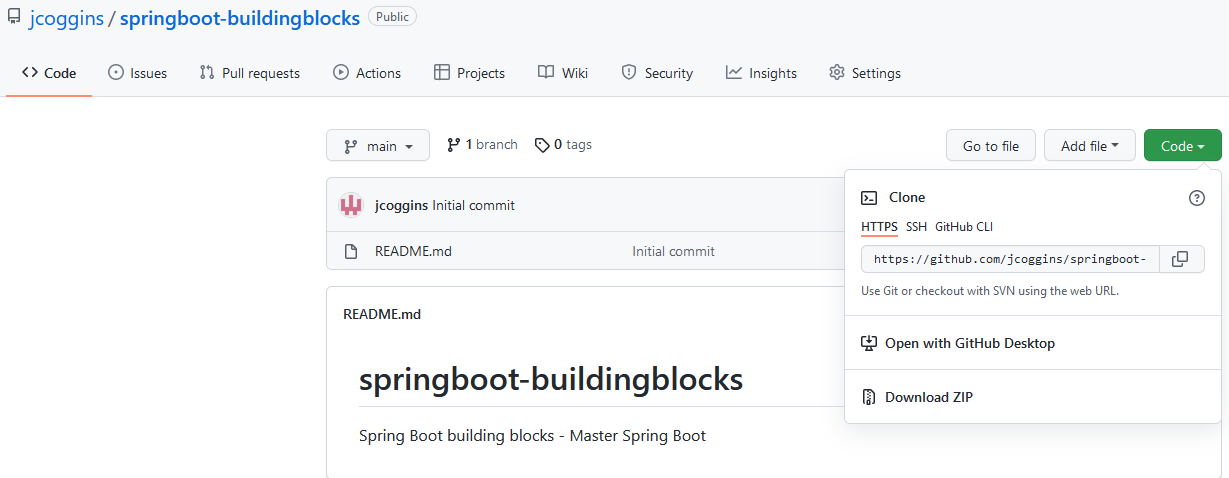
**Now, commit the files git commit –am “First Commit”**



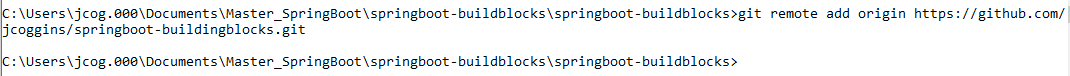
**Check if all committed git status**



**Now, add the origin git remote add origin**



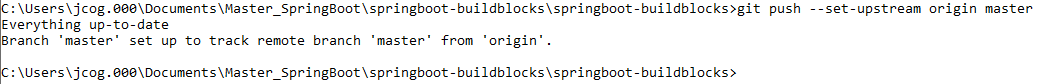
**Copy the git Repo location:** [**https://github.com/jcoggins/springboot-buildingblocks.git**](https://github.com/jcoggins/springboot-buildingblocks.git)



**Now, push the origin to the master git push –u origin master ( git push – for now on )**

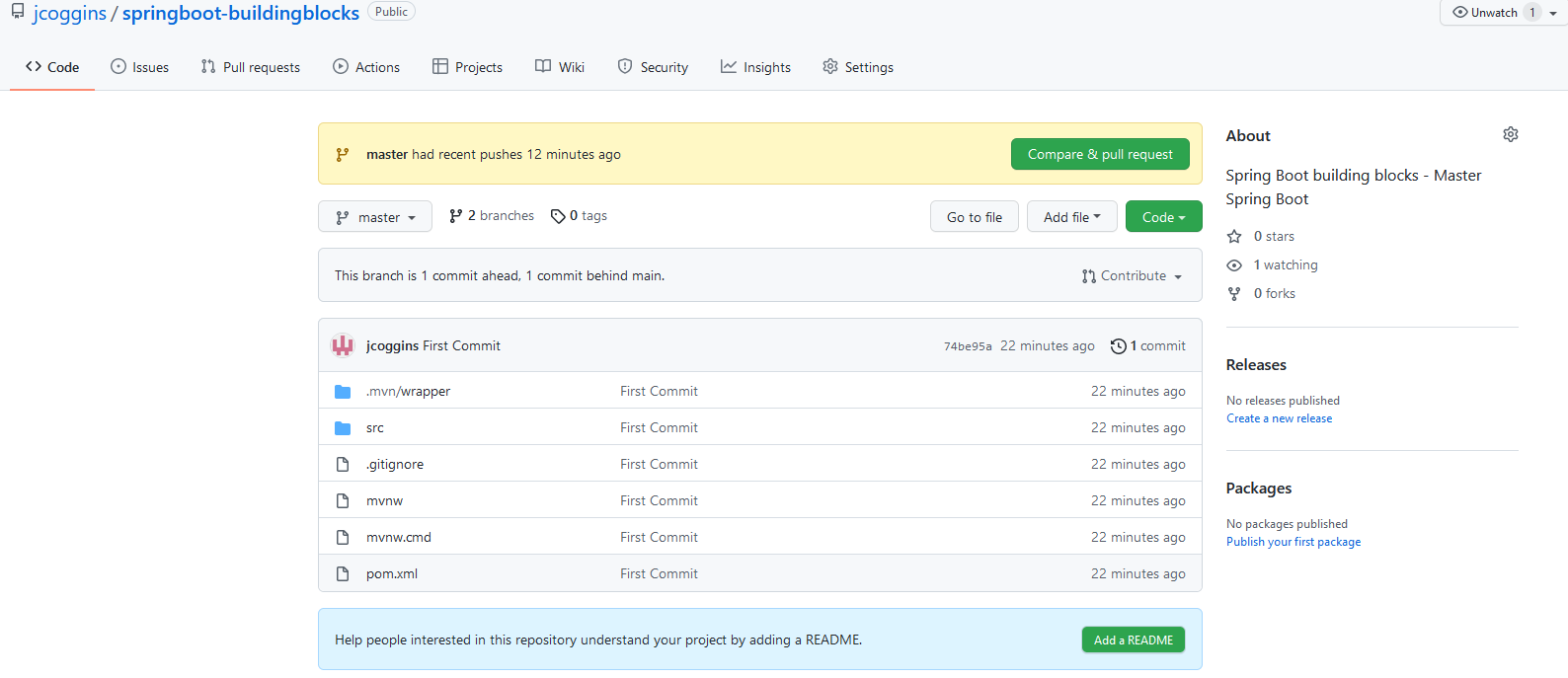


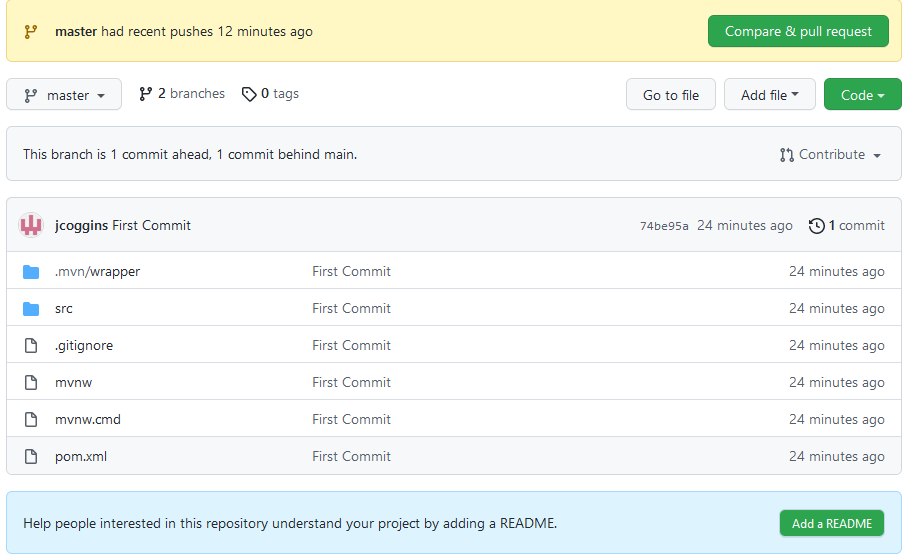
**Set the upstream or synchronize git push –set-upstream origin master**



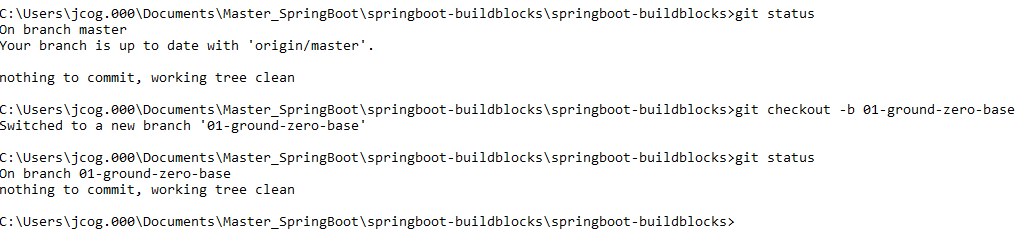
**Username: jcoggins**

**Pwd: joesBank56**

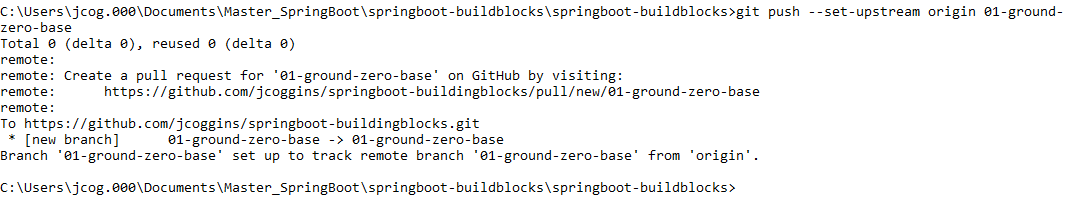


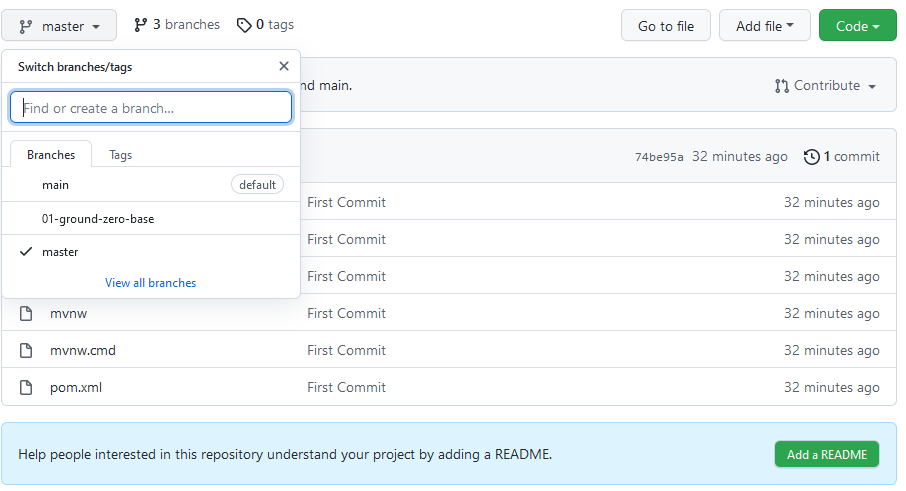


**Create the first working branch: create branch off master**



**Push the branch to remote:**

**If we go to GitHub we can see the branch 01-ground-zero-base**



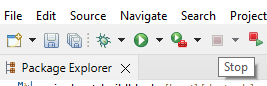
**Base Setup Steps:**

* **Create a project in github**
* **Branch: Master Branch**
  + **Initialize Local Repository**
  + **Create master branch**
  + **Check-in code**
  + **Add GIT Remote origin**
  + **Push code to the remote branch**
  + **Verify in remote branch**
* **Branch: 01-ground-zero-base branch**
  + **Create 01-ground-zero-base branch**
  + **Push code to the remote branch**

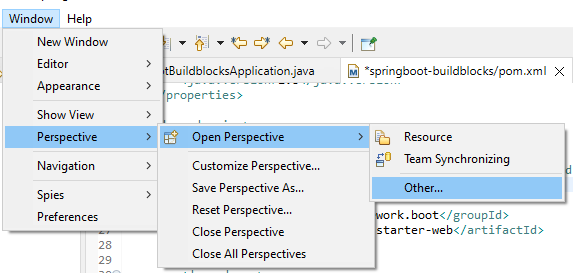
**Add the git repository to the STS GIT Perspective**

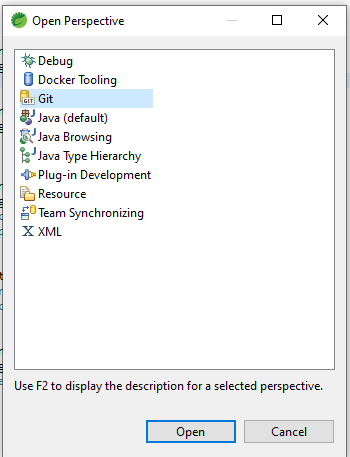
**First stop the Application from Running:**

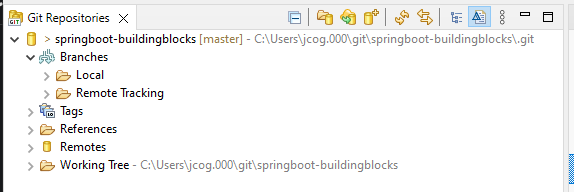
**The box is no longer red, because it was push, but that is the STOP the app button.**



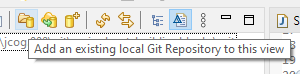
**Find the GIT perspective:**



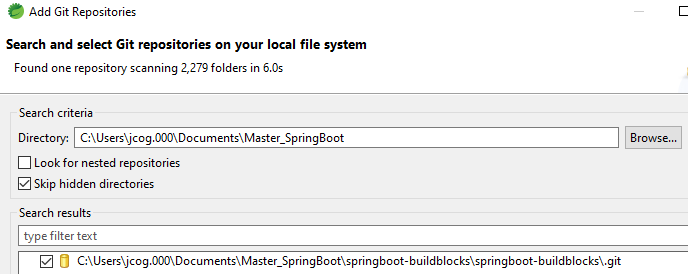




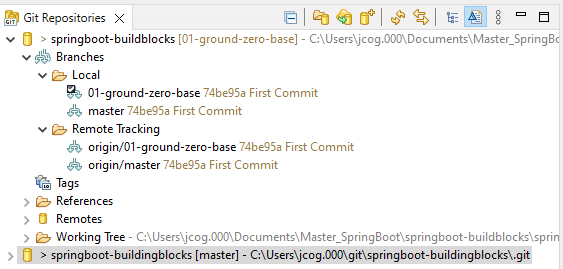
**Select “Add an existing local Git Repository to this view”**



**Find the local git file**

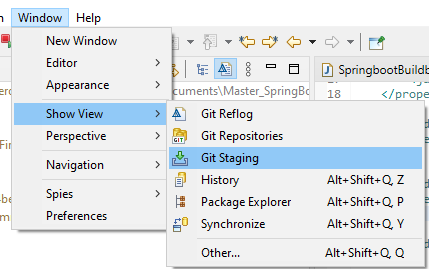


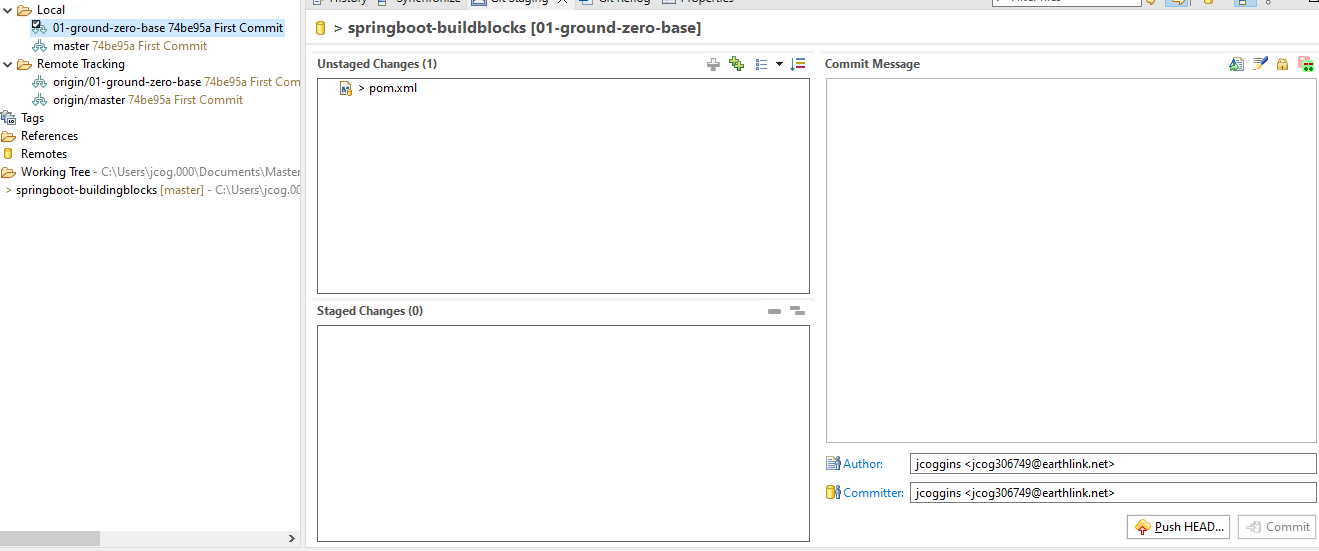
**Select Add**



**Now you see the 4 files with the same tracking number 74be95a, which means the changes are the same for all 4 files.**

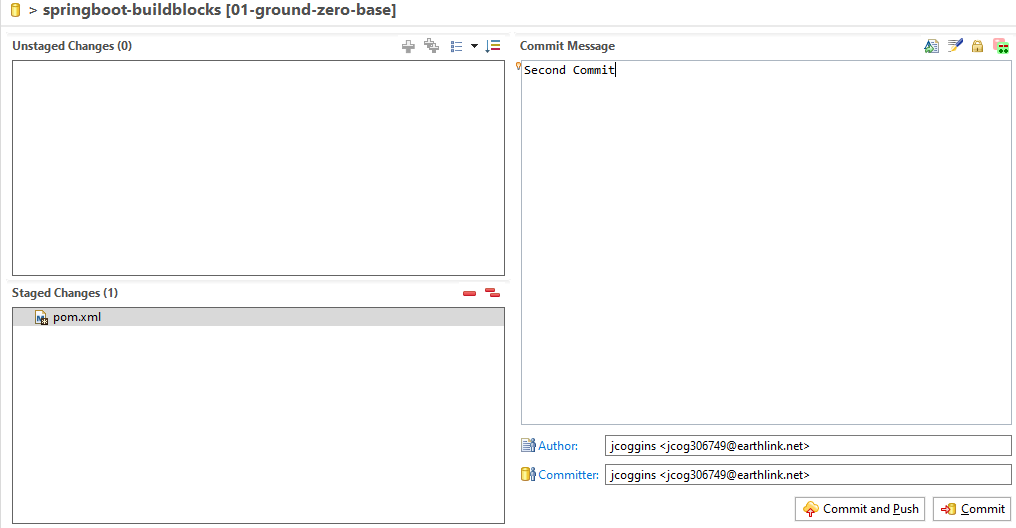
**Setup the Git Staging under the Show view:**





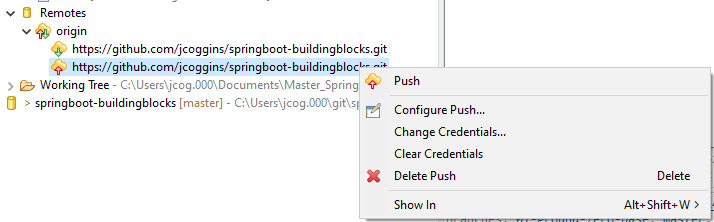
**You can see that only the pom.xml which has a saved empty line is unstaged:**

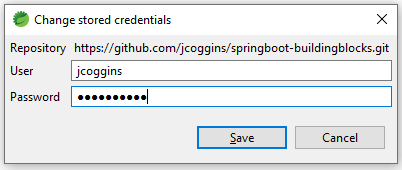
**We drag from UNSTAGED to STAGED, then type a message SECOND COMMIT, then COMMIT and PUSH button.**



**Push the COMMIT and PUSH button**

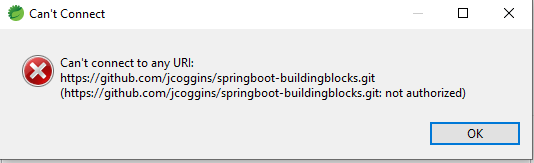
**Need to change Credentials:**



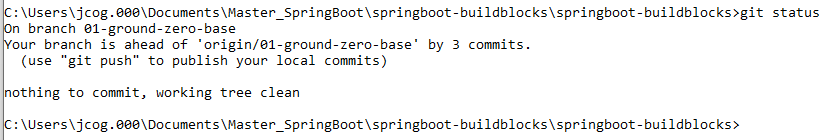


**Save the new user and password**

**Error occurs when trying to use the Eclipse GIT to push Second Commit**



**Need to solve this issue!**



**So, Fix using the Command Line:**

**First fix the GUI GIT issue using the command line: Do 4-C first!!**

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git branch**

\* 01-ground-zero-base

master C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git show-branch**

! [master] First Commit

\* [01-ground-zero-base] Second Commit \* [01-ground-zero-base] Second Commit

\* [01-ground-zero-base^] Revert "Second Commit" \* [01-ground-zero-base~2] Second Commit \* [master] First Commit

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git add .**

warning: LF will be replaced by CRLF in src/main/java/com/stacksimplify/restservices/SpringbootBuildblocksApplication.java.

The file will have its original line endings in your working directory.

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git status**

On branch 01-ground-zero-base

Your branch is ahead of 'origin/01-ground-zero-base' by 3 commits.

(use "git push" to publish your local commits)

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: src/main/java/com/stacksimplify/restservices/SpringbootBuildblocksApplication.java

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git commit -am "Fix modification"**

[01-ground-zero-base cf6f2cf] Fix modification

1 file changed, 1 deletion(-)

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git status**

On branch 01-ground-zero-base

Your branch is ahead of 'origin/01-ground-zero-base' by 4 commits.

(use "git push" to publish your local commits)

nothing to commit, working tree clean

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git checkout master**

Switched to branch 'master'

Your branch is up to date with 'origin/master'.

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git status**

On branch master

Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git branch**

01-ground-zero-base

\* master

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git merge 01-ground-zero-base**

Updating 74be95a..cf6f2cf

Fast-forward

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git show-branch**

\* [master] Fix modification

! [01-ground-zero-base] Fix modification

--

\*+ [master] Fix modification

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git push**

Counting objects: 14, done.

Delta compression using up to 4 threads.

Compressing objects: 100% (11/11), done.

Writing objects: 100% (14/14), 1.15 KiB | 236.00 KiB/s, done.

Total 14 (delta 5), reused 0 (delta 0)

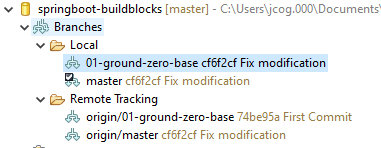
remote: Resolving deltas: 100% (5/5), completed with 3 local objects.

To https://github.com/jcoggins/springboot-buildingblocks.git

74be95a..cf6f2cf master -> master

**Now the Local branch and Local master are the same code cf6f2cf.**

**The Remote master is the same cf6f2cf, the Remote branch is not the same 74be95a**



**To fix the remote origin:**

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git checkout 01-ground-zero-base**

Switched to branch '01-ground-zero-base'

Your branch is ahead of 'origin/01-ground-zero-base' by 4 commits.

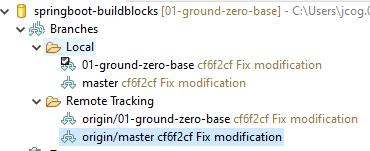
(use "git push" to publish your local commits)

C:\Users\jcog.000\Documents\Master\_SpringBoot\springboot-buildblocks\springboot-buildblocks>**git push**

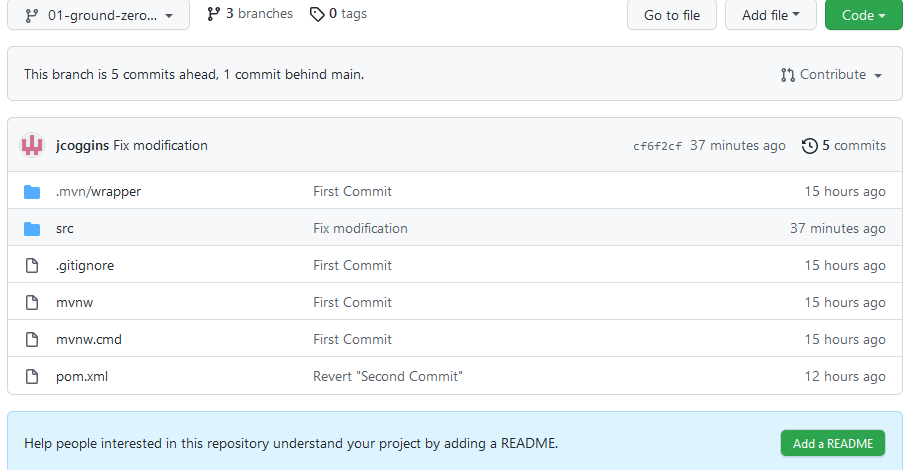
Total 0 (delta 0), reused 0 (delta 0)

To https://github.com/jcoggins/springboot-buildingblocks.git

74be95a..cf6f2cf 01-ground-zero-base -> 01-ground-zero-base



**They all match!!**



**Changes are on the Remote Repository cf6f2cf!!**