Using the SE420 Repository

Create an account at GitHub.com and Receive Access to the SE420 Repo.

[In a web browser]

- Navigate to https://github.com
- Do the next steps for each partner.
    - If you do not have a Github account create one now and make sure to make your ?netid?@illinois.edu is the primary email address for this Github account. (Actually I am not sure if your Illinois.edu has to be the primary email, but experiment with that another day)
    - If you already have a Github account you will need to add your ?netid?.illinois.edu email to your existing account. Log into your Github account at github.com and select "Settings" in the top right pull down menu. Then on the left of the screen find Emails. Add your ?netid?.illinois.edu as one of your account's email.
- Now that you have a Github account and one associated with your UIUC email, ask your instructor to grant you access to the Fall23 SE420 repository.

Create your Repository (This is most likely only done once for the lab repo)

[In a web browser]

- Navigate to https://github.com
- Login with your Github account and password.
- Create a new repository in your account by finding and clicking the "New" green button.
- Set the repositories name to SE420_repo and make it a private repository. Don't check the box of initializing "add Readme file" and "add .gitignore . Click the green button "Create Repository."
- As this repository is for your lab assignments, you will want to give your lab partner full access. Click on your repository and select the "Setting" tab. Under Settings find "Collaborators" on the left side of the screen. Add your partner [by Github username] as a collaborator.
- In the next step below you will be cloning this newly created and empty repository. So instead of typing in your repository web link, it is much easier to copy the link. To do this at the website,

    click the "Code" green button and click this icon to the right of your repositories website name. Below in a few steps you will paste this copied text.

[In File Explorer on a Lab PC]

- Use File Explorer to find the C:\ drive of the computer you are using. Create a folder on the C:\ root drive and use a combination of your NETIDs for the folder name, like c:\jonesz3_smithp4. Make sure there are no *, - or spaces in the directory name.

- Then explore into your folder and right click in any white space in File Explorer and select "**Git Bash Here**". This will open a Command Prompt window where you can issue git commands. (If you are doing this on your own PC you will have to have Git for Windows installed.)

[In the bash command window]

- At the command prompt, type and run the command: **git clone YOUR_GITHUB_LINK**. For example:
  git clone https://github.com/danshub/SE420_repo.git   NOTE that paste in the bash command windows is Shift – Insert.
  YOUR_GITHUB_LINK is the repo link you copied above at the github.com website. ONCE you enter this command you will be asked for your github.com account credentials. Our goal here is to get Windows 10 to save your credentials so that when you are logged into this lab PC you do not have to enter your Github account and password too often (if at all). (If you start working on another Lab PC in the future you will have to sign in there.) I have seen github.com ask for different things here in these steps, but most of the time it asks you enter your credentials at the github.com website in a browser window that pops up. Once the browser window pops up, enter your github.com username and password and that should be it (hopefully). From then on Windows 10 will store your github.com login credentials on that PC. Now of course if you, in the future, change your github.com password you will need to remove any github entries in the Windows Credential Manager on that PC.

[Remaining Command in Git Bash]

- **cd SE420_repo**
- **git remote add coursecode https://github.com/COECSL/SE420Fall23.git**
- **git fetch coursecode**
- **git merge coursecode/main -m "this is a comment so maybe - get course code"**
- **git push origin main**

Cloning your already created Repository on another PC

[In a web browser]

- Navigate to https://github.com
- Login with your Github.com username and password.
- In the next step below you will be cloning this repository. So instead of typing in your repository web link, it is much easier to copy the link. To do this at the website, click the green "Code"

  button and click the icon [icon] to the right of your repositories website name. Below in a few steps you will paste this copied text.

 [In File Explorer]

- Create a new folder on the C:\ drive. Name it EXACTLY the same as the root folder you created on the first PC you cloned your repository into. It is important that you create the same folder structure on this new PC so that Code Composer Studio can find all your files. "for example c:\jonesz3_smithp4"
- Open the folder in File Explorer and then in white space right click and select "**Git Bash Here**"

[Commands in Git Bash]

- **git clone [your SE420_repo]**
  - example: **git clone https://github.com/danshub/SE420_repo.git**
- **git remote add coursecode https://github.com/COECSL/SE420Fall23.git**

Synchronize Code from a different PC (After Cloning)
- open Git Bash in your Repository Directory
- **git pull**

Back up your Local Repositories Workspace folder to GitHub
You should complete this section at the end of every class or after you have made changes that you want to back up.

- Navigate to C:\YourNetIDs\SE420_repo\ and open Git Bash
- **git pull** (Just in case there are items not pulled down to the current PC you ae working on)
- **git add workspace**
- **git commit -m "put my message here"**
- **git push origin main**

Course File Updates
This section is something you should perform before each lab and homework to see if there are any updates to the class starter code.

[In Web Browser]

- Navigate to C:\YourNetIDs\SE420_repo\ and open Git Bash
- **git pull** (Just in case there are items not pulled down to the current PC you ae working on)
- **git fetch coursecode**
- **git merge coursecode/main -m "get course code"**
- **git push origin main**

If your NetID login password changes during the semester.
- Navigate to Windows Control Panel
- User Accounts -> Credential Manager -> Windows Credentials
- Find git:https://github.com and select Edit and change your password.

More Details and Explanation of the steps:
`cd [your netid]`
change directory to the folder created

`git remote add coursecode https://github.com/COECSL/SE420Fall23.git`
this adds the course repo as the "coursecode" branch (may change to whatever name), "coursecode" is related to the course repo

`git fetch coursecode`
get the code from remote course repo

`git merge coursecode/main -m "get course code"`
merge the course repo and your existing code

`git push origin main`
push the local changes to github

`git add workspace`
add workspace folder to stage

`git commit -m "put commit message"`
commit change to local repo

`git clone [your SE420_repo]`
clone the repo, will create a folder named repo name automatically

`git pull`
get current state of remote repository code.

Basic Git Commands