



### Assignment Background:

Set up a local Git account and remote GitHub account. Within Android Studio, create a basic HelloWorld application called *yourUserNameLab1\_1*. Save this project to a local Git repository and connect it to the remote GitHub account.

## Create a GitHub account

- 1) Go to [GitHub](https://github.com) and set up an educational GitHub account
  - a) This should be a 'free' version. If you already have an account, you may use that one.
  - b) For step-by-step instructions,
    - GitHub for Windows <https://windows.github.com>
    - GitHub for Mac <https://mac.github.com>
  - c) For step-by-step instructions,
    - Handy Cheat sheet <https://education.github.com/git-cheat-sheet-education.pdf>
    - Good Resources for Learning Git and GitHub <https://help.github.com/articles/good-resources-for-learning-git-and-github/>

## Android Studio to GitHub

- 1) Although Git/GitHub can be utilized from the command line, we will use the tools provided within Android Studio. However, it is **HIGHLY** recommended that you learn command line as Git is used in all arenas of IT
- 2) Open your Android Studio project and select **VCS > Import into Version Control > Share Project on GitHub**
  - Be sure your project is named: *YourUsernameLab1\_1* where *YourUsername* is your MadisonCollege username
  - GitHub uses this **Name** in the URL for your repository. For example, the username yourUsername has a repository name YourUsernameLab1\_1, the full URL for that repository is [https://GitHub.org/yourusername/YourUsernameLab1\\_1](https://GitHub.org/yourusername/YourUsernameLab1_1). You can use the URL to quickly navigate to a repository overview
- 3) You will be presented with a login screen, enter your GitHub username and password and click **Login**
- 4) If you are working on the student lab/class machines, you will need to setup and configure user information used across the local repositories
  - a) You will need to perform these commands everytime as the machines use DeepFreeze, so any changes will be lost when the machine is rebooted
  - b) Set a name that is identifiable for credit when review version history

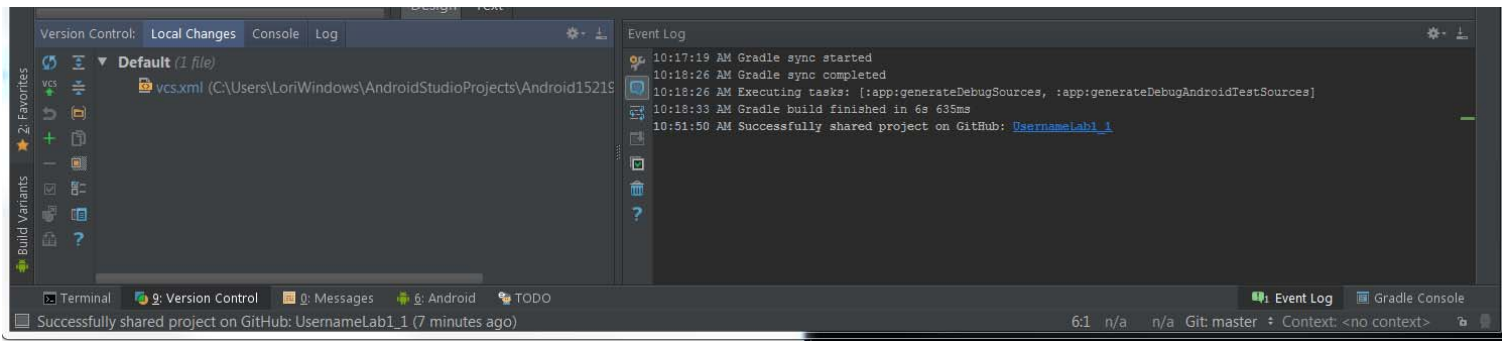
```
git config --global user.name "[firstname lastname]"
```

- c) Set an email address that will be associated with each history marker

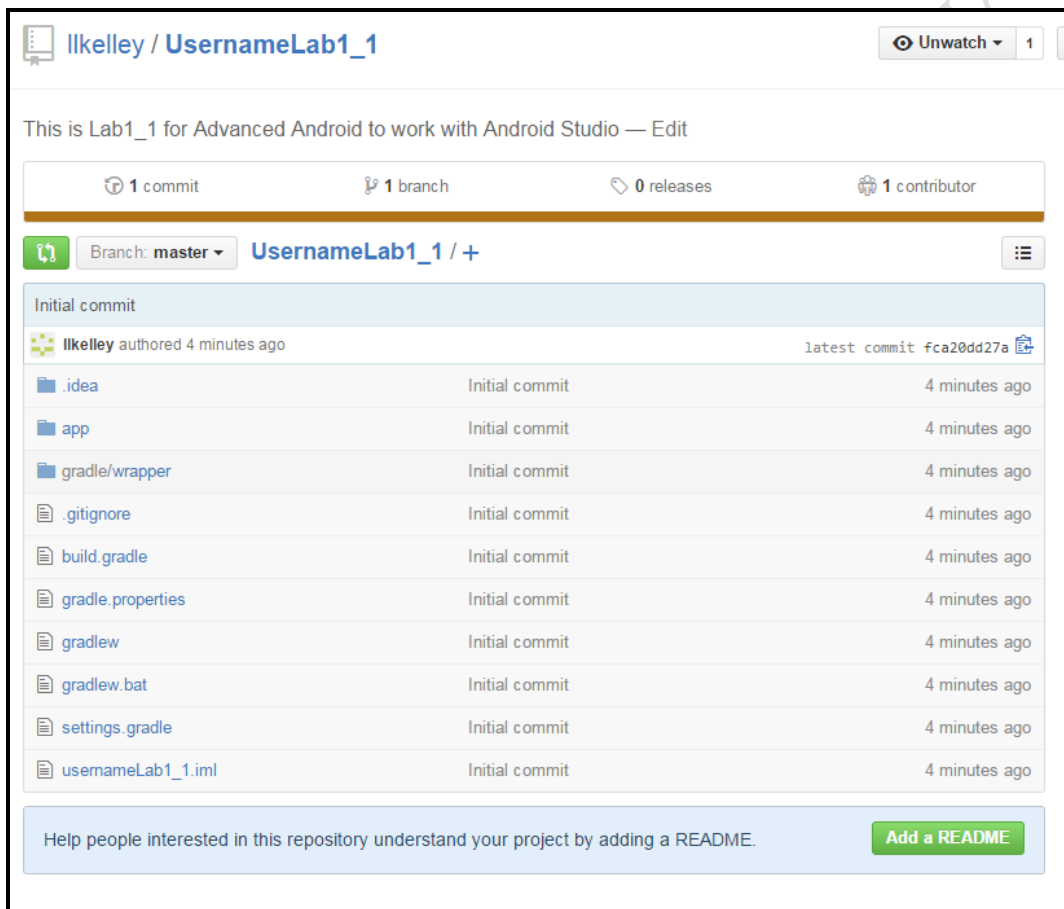
```
git config --global user.email "[valid-email]"
```



9) For more details on the Version Control, click on the Version Control tab at the bottom of Android Studio



10) If you login to GitHub and navigate to your repositories, you will see the new project in there



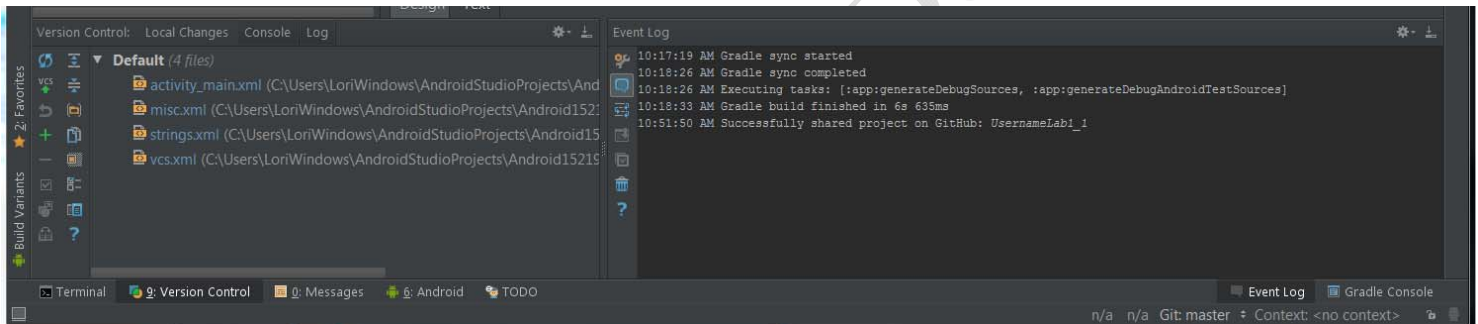
## Make changes to the project

### 11) Modify UsernameLab1\_1

- Modify the "Hello World!" text to read "Welceom back to Android 152-195"
- Modify the layout to use a linear layout and add a name entry field



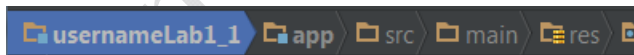
- 12) In the Version Control tab at the bottom of Android Studio, you should now see that your *strings.xml* and *activity\_main.xml* files have been added to the *Local Changes* tab



## Commit the changes

- 13) There are several ways to commit changes. Here are two methods to get the commit started:

- On the top right hand side of Android Studio, right click the project name, select *git* and choose *Commit Directory*

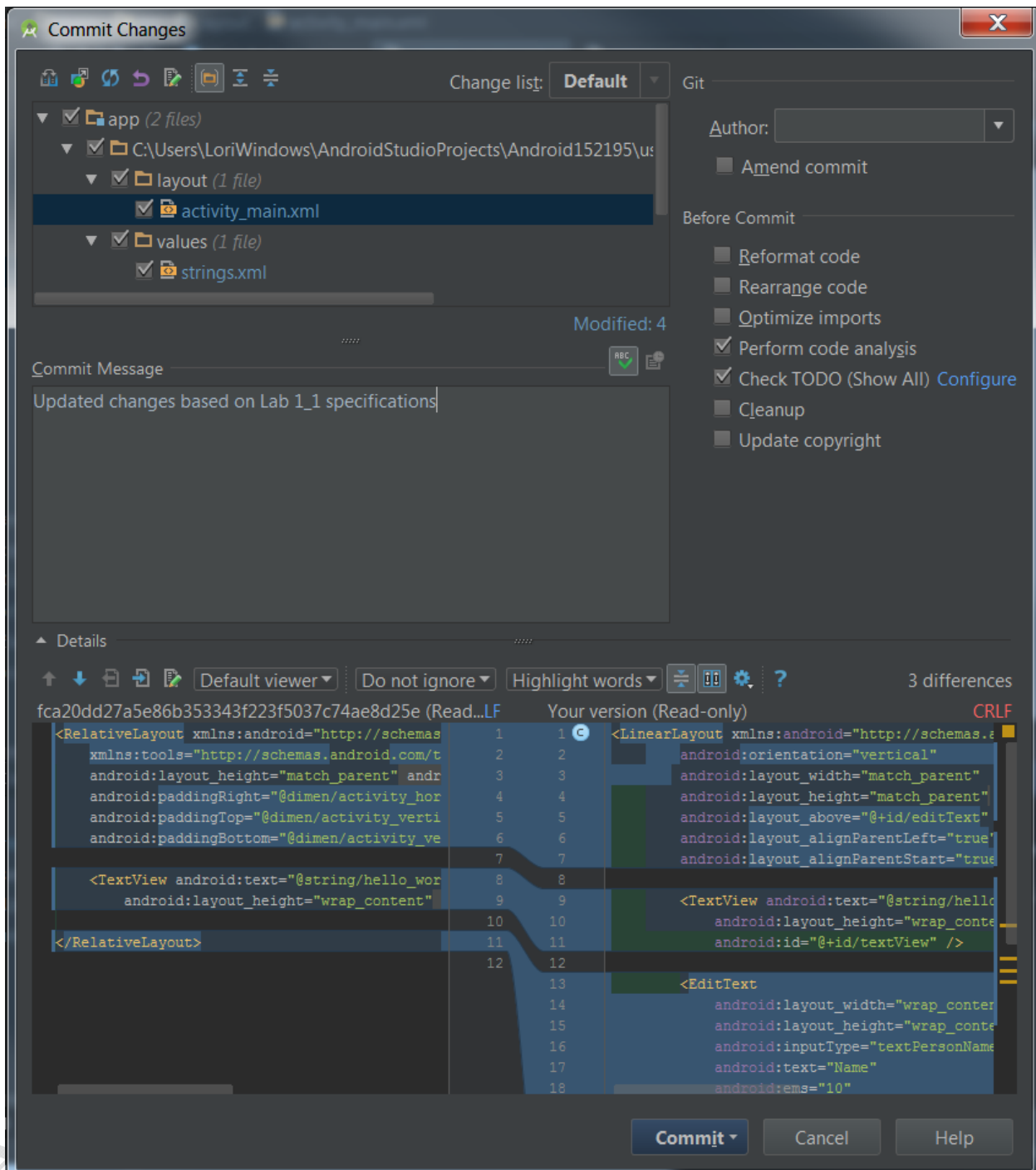


- In the Version Control tab, click the Commit Changes icon

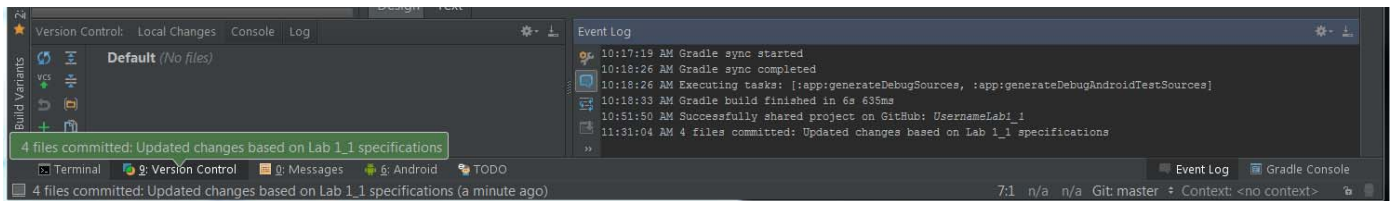


14) In the *Commit Changes* screen

- Review the changes that are being displayed. A great visual before and after are displayed at the bottom of the dialog box
- Ensure all the files are checked
- Type a *Commit Message* "Updated changes based on Lab1\_1 specifications"
- Click *Commit* to commit your changes



15) If you view the Version Control tab, you should view the commits

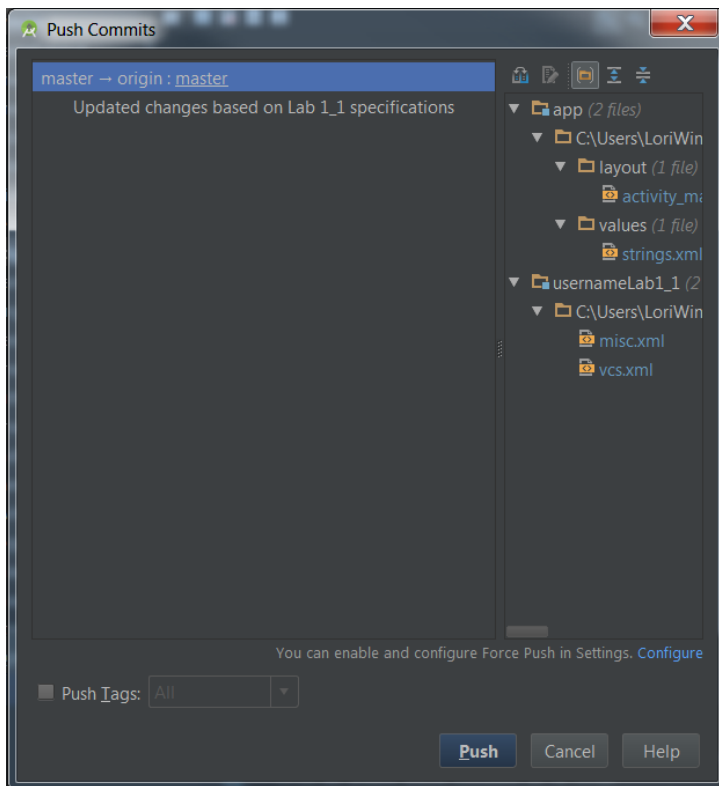


16) Although we have 'committed' the changes, we have not pushed them up to GitHub

## Push your changes to GitHub

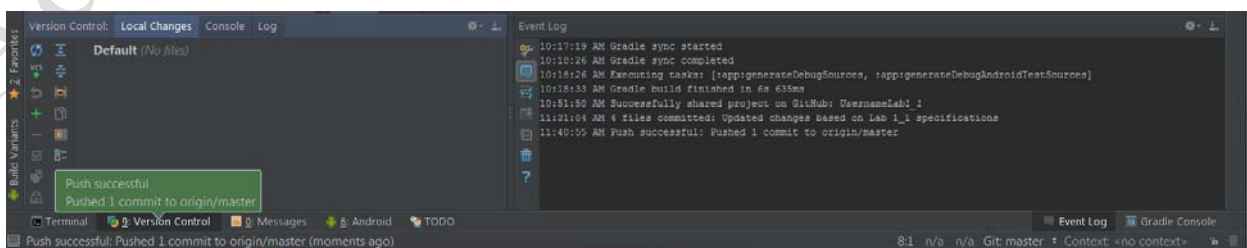
17) There are several different methods to push changes to GitHub

- Select the project name in the top left corner, then choose *Git > Repository > Push*
- From the Menu bar, choose *VCS > Git > Push*

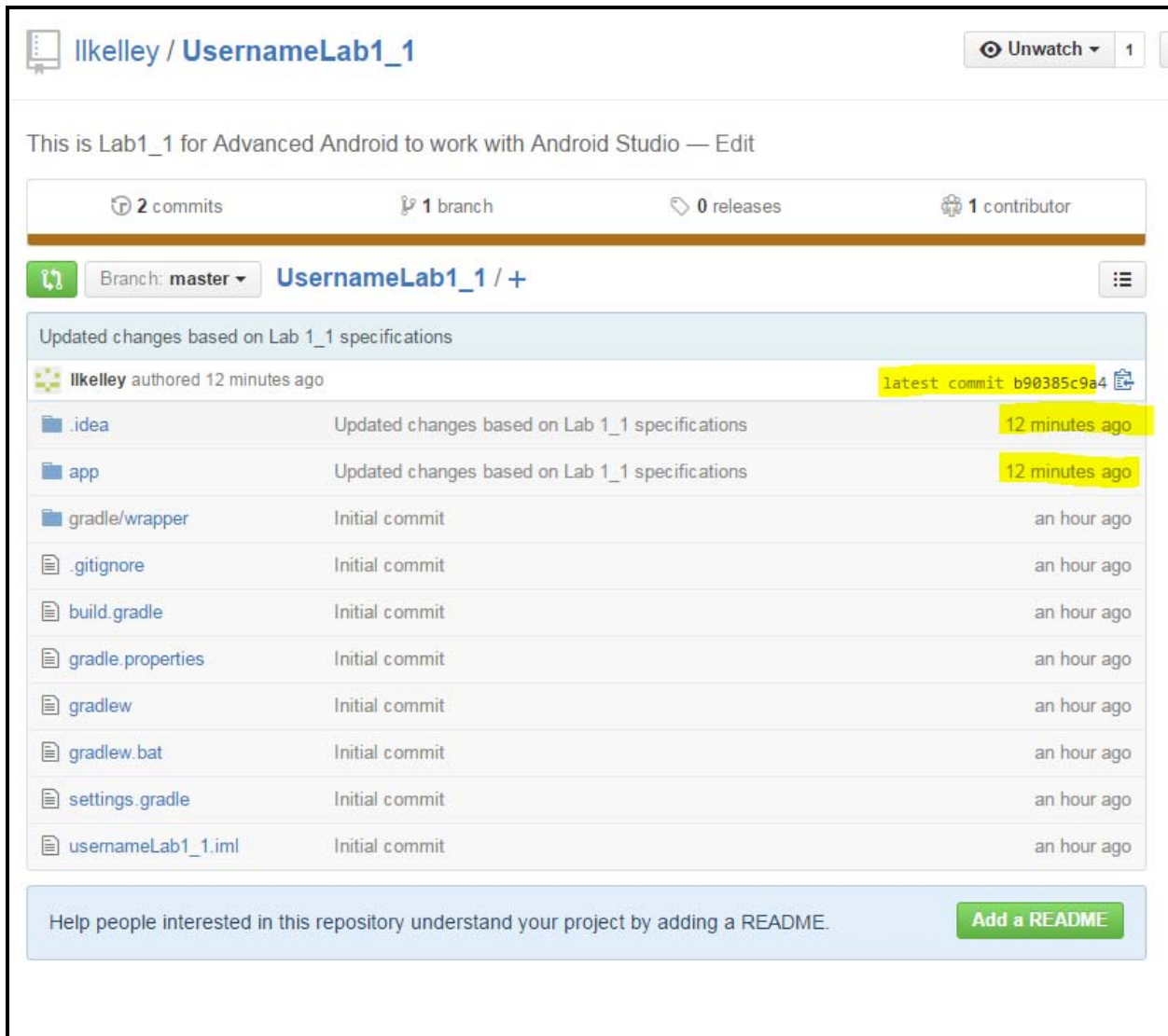


18) Review the commits. Select Push button

19) If the Push was successful, you will see a message down in the Version Control tab



- 20) Go out to GitHub and verify that the push indeed worked. You should see the entire project displayed and contents



The screenshot shows the GitHub repository page for 'llkelley / UsernameLab1\_1'. At the top, it says 'This is Lab1\_1 for Advanced Android to work with Android Studio — Edit'. Below this, there are statistics: 2 commits, 1 branch, 0 releases, and 1 contributor. The main section shows the commit history for the 'master' branch. The most recent commit, 'Updated changes based on Lab 1\_1 specifications', was authored by 'llkelley' 12 minutes ago. This commit includes updates to the '.idea' and 'app' directories. Other files listed include 'gradle/wrapper', '.gitignore', 'build.gradle', 'gradle.properties', 'gradlew', 'gradlew.bat', 'settings.gradle', and 'usernameLab1\_1.iml', all of which were part of the initial commit an hour ago. At the bottom, there is a prompt to 'Add a README'.

llkelley / UsernameLab1\_1

Unwatch 1

This is Lab1\_1 for Advanced Android to work with Android Studio — Edit

2 commits 1 branch 0 releases 1 contributor

Branch: master UsernameLab1\_1 / +

Updated changes based on Lab 1\_1 specifications

llkelley authored 12 minutes ago latest commit b90385c9a4

|                    |   |                |
|--------------------|---|----------------|
| .idea              | Updated changes based on Lab 1_1 specifications | 12 minutes ago |
| app                | Updated changes based on Lab 1_1 specifications | 12 minutes ago |
| gradle/wrapper     | Initial commit                                  | an hour ago    |
| .gitignore         | Initial commit                                  | an hour ago    |
| build.gradle       | Initial commit                                  | an hour ago    |
| gradle.properties  | Initial commit                                  | an hour ago    |
| gradlew            | Initial commit                                  | an hour ago    |
| gradlew.bat        | Initial commit                                  | an hour ago    |
| settings.gradle    | Initial commit                                  | an hour ago    |
| usernameLab1_1.iml | Initial commit                                  | an hour ago    |

Help people interested in this repository understand your project by adding a README. Add a README

Submission:

- Copy the GitHub repository link and paste it in the Lab 1.1 submission within Blackboard
- You do NOT need to attach the project with the submission