



TERRABATS



Version Control In FTC



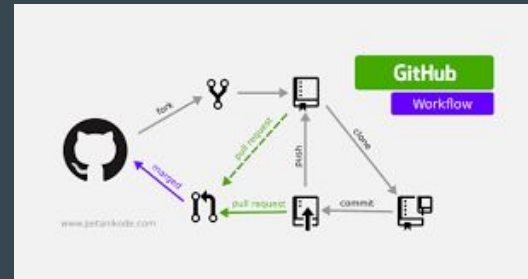
By Team Terrabats 14525



What is Github?

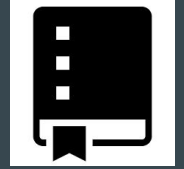


- What is **Version Control**
 - **Version control** or **VCS** is a tool that programmers use to share, save, and recall code
 - **Git** is a popular **version control** software that most FTC teams use
 - **GitHub** (Not to be confused with **git**) is a website that lets users easily publish their code to the cloud and lets other team members access it
 - **Git** has a series of commands that tells the computer what to do



Vocabulary - General

Version Control - A method to share and deploy code to a cloud, from which other members can **branch**-off and make other versions of the code



Repository or repo - Where all the code is stored online

Cloud - Online storage (Allows users to collaborate)

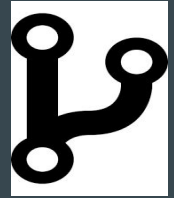


Local Machine - Term for your computer

SDK - A software development kit is a set of software development tools that allows for the creation of applications (In this case programs for the robot)

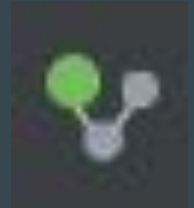


Vocabulary - **Git** Commands



Branch - Another project which is the edited edition of the main **branch**

Commit - Saves the code permanently, can be used as a checkpoint to retrieve later



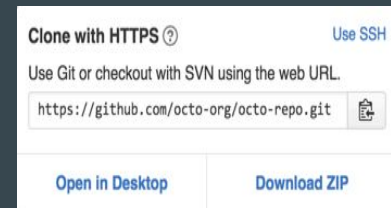
Push - Puts the code on your computer onto the cloud where other people can access it



Pull - Takes the code from the cloud and puts it into your computer

Clone - Creates a copy of a **repository** on your device

Full list here: <https://git-scm.com/docs>



Git

vs.

Github

1. This is a programming language.
2. This is a **Version Control** Software.

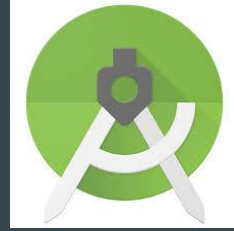


1. This is a website.
2. This lets users publish code to the internet, or the Cloud.
 - a. Others can access this code.

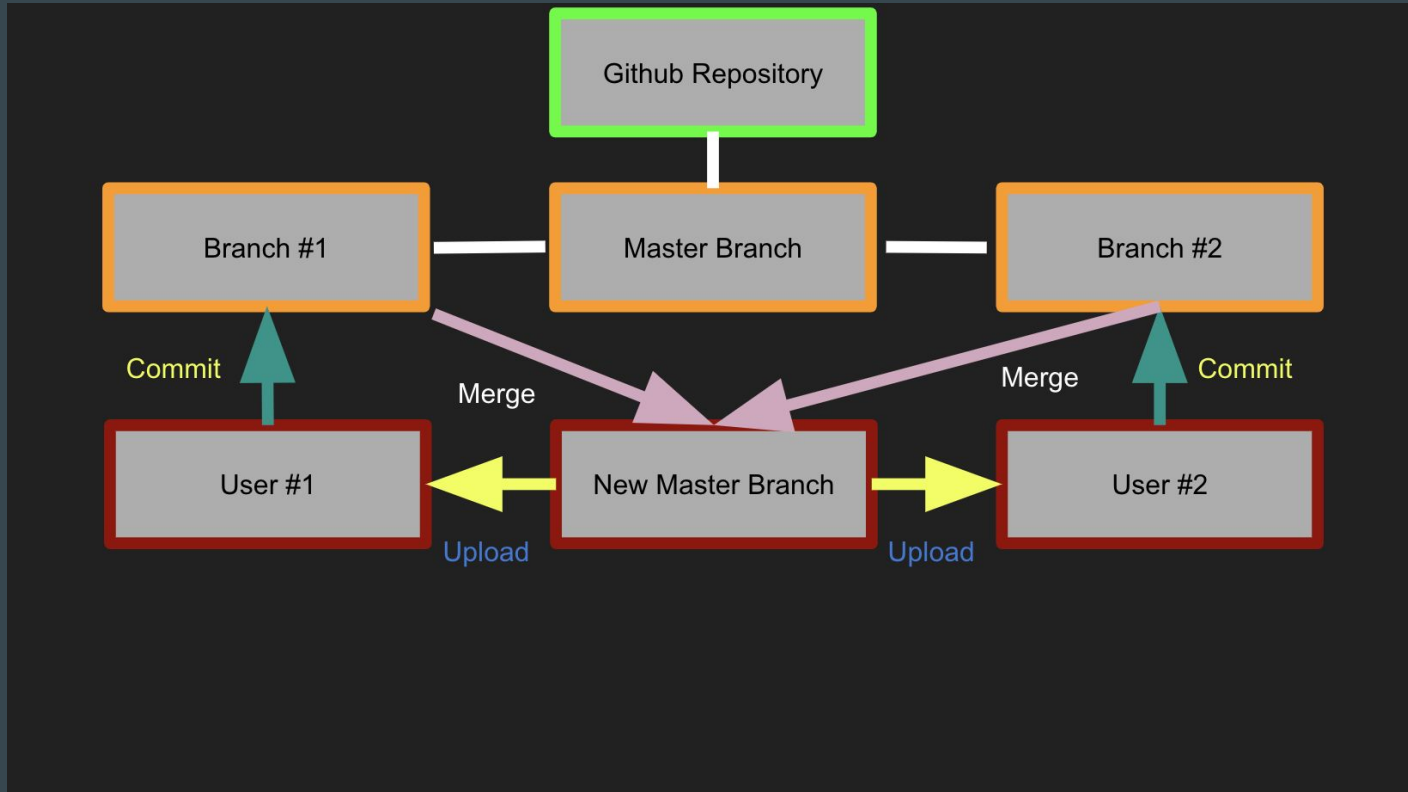


What is needed?

- **Git**
 - <https://git-scm.com/>
- **Github** Account
 - <https://github.com/>
- **Android Studio**
 - <https://developer.android.com/studio>
- **FTC SDK**
 - https://github.com/ftctechnh/ftc_app

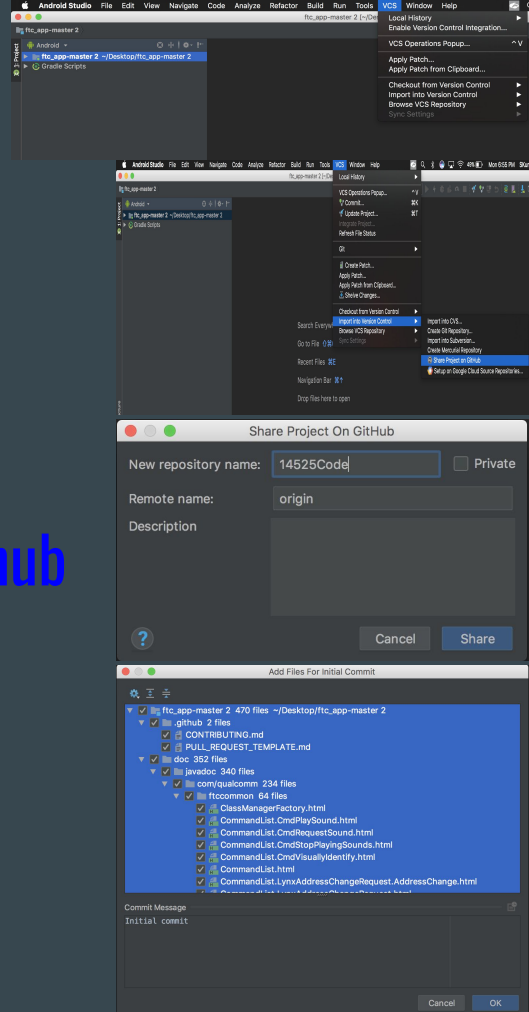


Github Diagram

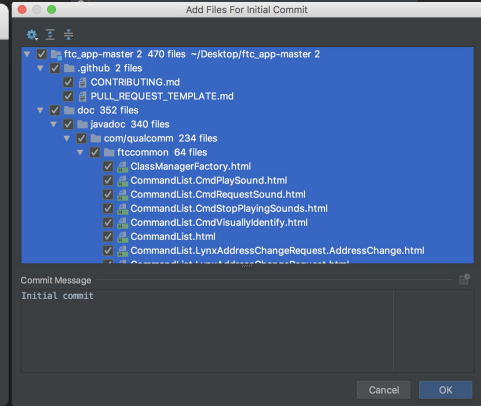
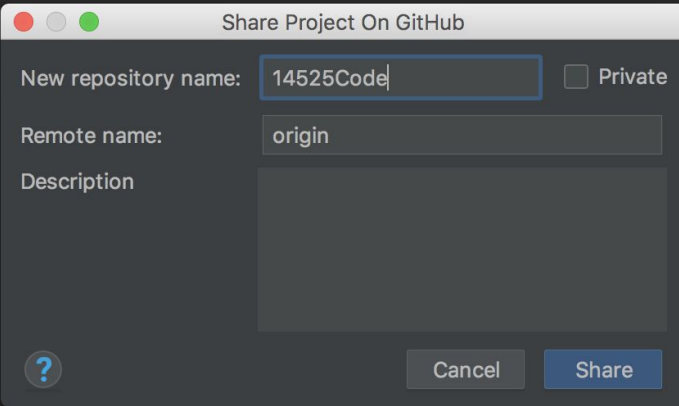
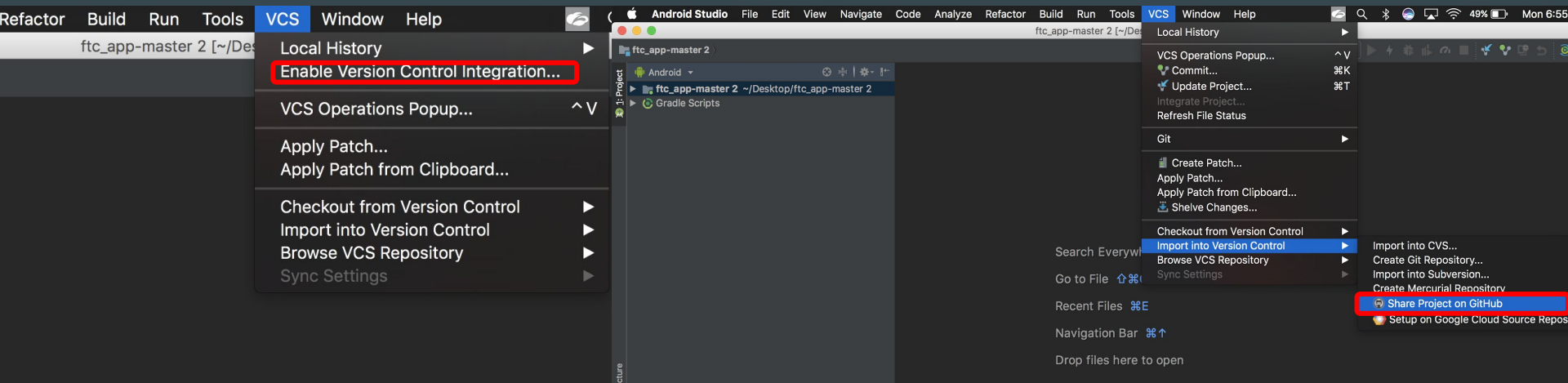


Creating the initial **repo**

- Open **FTC SDK** in Android Studio
- Click **VCS** -> Enable **Version Control** Integration
- Select **git** has the preferred vcs system
- Then, press **Import into VCS** -> **Share Project On Github**
- Give your **repo** a name and press share
- Then, select all files and press ok



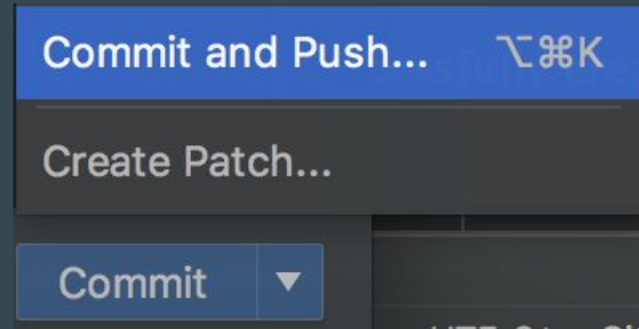
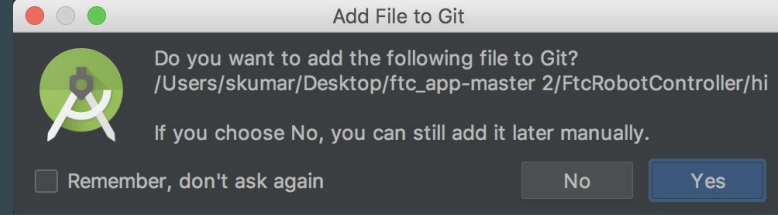
Pictures for Creating The Initial Repo



How to update changes on to github

- Whenever creating a new file, press yes to adding file to **git**
- After making your changes, press update project
- Then, add a **commit** message and press on the arrow to **push** the file to **github**
- When **pushing** select which **branch** you want to **push** to
- Click **push**

```
master → origin : master
```



Pictures for update changes to GitHub

Add File to Git

Do you want to add the following file to Git?
/Users/skumar/Desktop/ftc_app-master 2/FtcRobotController/hi

If you choose No, you can still add it later manually.

Remember, don't ask again

No Yes

Commit and Push...

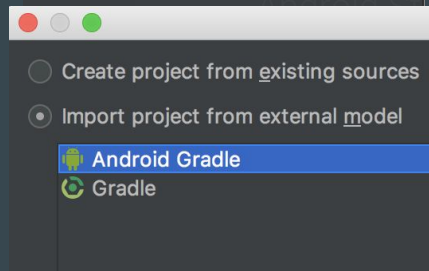
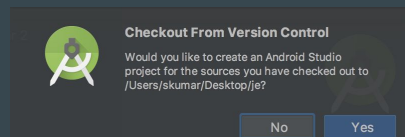
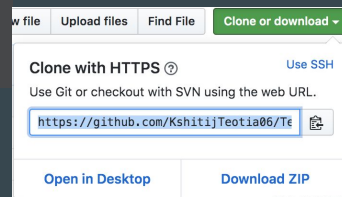
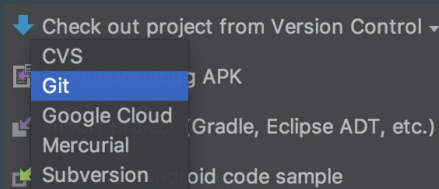
Create Patch...

Commit ▼

master → origin : master

How to open a **github** project on a different local machine

- Click check out project from **Version Control**
- Select **git**
- Copy url of the **repo** and paste it into the url of directory
- Press **clone**
- On the pop up, we have to click yes
- Click import project from external module
- Click finish



Pictures for how to open a [github](#) project on a different local machine

Check out project from Version Control ▾

- CVS
- Git**
- Google Cloud
- Mercurial
- Subversion

Download file Upload files Find File Clone or download ▾

Clone with HTTPS ⓘ Use SSH

Use Git or checkout with SVN using the web URL.

<https://github.com/KshitijTeotia06/Te>

Open in Desktop Download ZIP

Create project from existing sources

Import project from external model

- Android Gradle**
- Gradle



Checkout From Version Control

Would you like to create an Android Studio project for the sources you have checked out to /Users/skumar/Desktop/je?

No

Yes



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git

Thank You For Listening



Any Questions?

