

GitHub, Student

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Montgomery College, 2018

These Slides Will Answer the Following Questions:

What is GitHub?

How do I use GitHub?

How do I create Private Repository?

How do I use GitBash and desktop version?

What is GitHub?

GitHub is a *version control system that (VCS)* that lets users save their code online, track changes of their code (versions), and collaborate with others on a particular project. A version control system records changes to files over time and let's users review this changes later.



Git vs. GitHub

It was built off of **Git** which is also a VCS; however, Git only uses the command line tool when making changes to a project. **GitHub** allows users to make changes online, using the command tool (GitBash or the terminal), and in GitHub Desktop.



vs



GitHub Terms

Repository is where all files are stored for a particular project. Each project has its own repository where multiple versions and branches are created and tracked.

Branches are the versions of a user's code inside a repository that is created without altering original state of the project (usually the master branch).

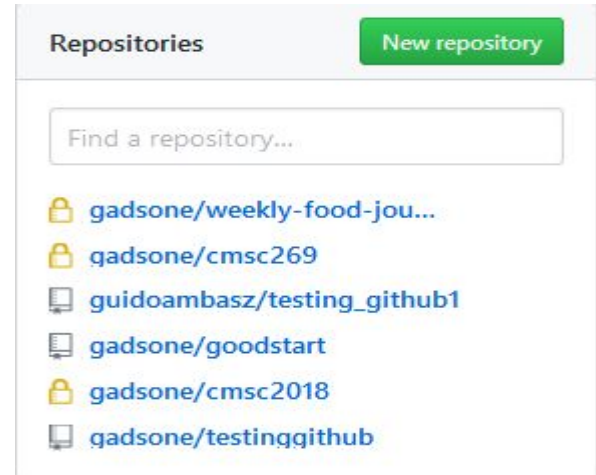
Master branch is created once a repository is created and can store all versions of a project when branches merge into it.

Cloning allows for the online repository to be downloaded locally on a user's computer.



Public vs. Private Repositories

Public repositories are projects are visible to the entire GitHub community is great for collaborating with users all over the world. **Private repositories**, however, are only visible to the user that creates it unless they decide to add collaborators are on the project. Repositories that have lock represent private while the public repositories have an open source symbol.

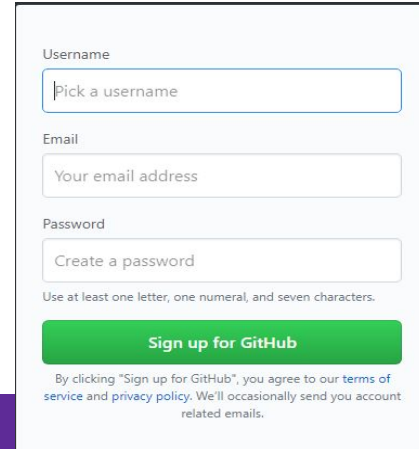


Create a GitHub Account

Create your GitHub account using your Montgomery College Email (MYMCID@montgomerycollege.edu):

<https://github.com/>

With a valid student email, you are able to create private repositories for free.

A screenshot of the GitHub sign-up form. It features three input fields: 'Username' with a placeholder 'Pick a username', 'Email' with a placeholder 'Your email address', and 'Password' with a placeholder 'Create a password'. Below the password field is a small text requirement: 'Use at least one letter, one numeral, and seven characters.' A prominent green button labeled 'Sign up for GitHub' is positioned below the form. At the bottom, a line of text states: 'By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We'll occasionally send you account related emails.'

Request a discount

After signing up for github go to <https://education.github.com> to request a free 2 year discount. GitHub is a open source software that allows users to create multiple public repositories, but users need to request a discount for unlimited private repositories. This is free with student verification!

Follow the next steps to activate student development pack.

Real-world tools, engaged students

GitHub Education helps students, teachers, and schools access the tools and events they need to shape the next generation of software development.



GitHub Student Developer Pack

The best developer tools, free for students



GitHub Campus Experts

Training to enrich the technology community at your school



GitHub Field Day

Unconferences for leaders of technical student communities



GitHub Classroom

The GitHub workflow, scaled for the needs of students



GitHub Campus Advisors

Teacher training to master Git and GitHub

[Home](#) / [Students](#) / [Student Developer Pack](#)

Learn to ship software like a pro.

There's no substitute for hands-on experience, but for most students, real world tools can be cost prohibitive. That's why we created the GitHub Student Developer Pack with some of our partners and friends: to give students free access to the best developer tools in one place so they can learn by doing.

[Get your Pack](#)

[Home](#) / [Students](#) / Student Developer Pack

Are you a student?

The GitHub Student Developer Pack is only available to students aged 13 or older.

Before you receive access to the offers we need to [verify that you are a student](#).

Teachers, researchers, faculty, staff, and other educational users can [get free and discounted access to GitHub](#), but are not eligible for the Pack. If you're not a student, you can still request a regular GitHub for education discount.

[Yes, I'm a student](#)[No, I'm not a student but would still like a discount](#)

Fill in the information as seen and submit your request.

Tell us what you need

Tell us about you

Name

gadsone

Verify academic status

Select your school-issued email address:

Upload proof of current school affiliation

If your school-issued email address isn't listed, please [add and verify it](#), then refresh this page.

Upload Validation

Drop file here or click to upload.

Please upload an image of your school ID, academic transcript, or other proof of affiliation. Please make sure that at least one date that demonstrates your current academic status is clearly visible.

School name

Graduation year

2018

How do you plan to use GitHub?

Please note, your request cannot be edited once it has been submitted, so please verify your details for accuracy before sending them to us.

Submit request

Check college email to see when you have leveled up to student pack.

GitHub Education

Welcome to the Student Developer Pack

Hey **gadsone**, we have some awesome news

We've upgraded you to a plan with unlimited free private repositories, which will be free for the next two years. After that, you'll get an email saying that your coupon is expiring. You can reapply for another coupon if you still have academic status. We don't have any collaboration limits, so any group projects you may encounter can be hosted via your account.

If you need help getting started with Git and GitHub, check out:
<https://help.github.com/articles/good-resources-for-learning-git-and-github>

We've also given you access to the Student Developer Pack, available at:
<https://education.github.com/pack>

If you have any questions, contact us:
<https://education.github.com/contact>

Spread the word: we love giving educational discounts to students, teachers, administrators, and researchers! Please send them to:
<https://education.github.com>

Have an Octotastic day!
- The GitHub Education Team

After submitting your request go to the billings tab on github and you should see your coupon.

The image is a composite of three screenshots from the GitHub website. The leftmost screenshot shows the user's profile dropdown menu, which is open, displaying options like 'Signed in as gadsone', 'Your profile', 'Your stars', 'Your gists', 'Help', 'Settings' (highlighted with an arrow), and 'Sign out'. The middle screenshot shows the 'Personal settings' page with the 'Billing' tab selected (indicated by an arrow). The rightmost screenshot shows the 'Billing overview' page, where a coupon is displayed: 'You have an active coupon for \$7.00 off for 2 years, until 2020-07-02.' The coupon text is enclosed in a purple rectangular box. Other details on the billing page include the 'Developer' plan, 'Git LFS Data' usage, and a 'Payment' section indicating no payment method is on file.

Signed in as gadsone

- Your profile
- Your stars
- Your gists
- Help
- Settings
- Sign out

Personal settings

- Profile
- Account
- Emails
- Notifications
- Billing
- SSH and GPG keys
- Security
- Blocked users
- Repositories
- Organizations
- Saved replies
- Applications
- Developer settings

Billing overview

Plan: Developer – Unlimited private repositories

Git LFS Data: \$0 per month for 0 data packs – Learn more about Git LFS [Purchase more](#)

Marketplace Apps: You have not purchased any apps from the [Marketplace](#).

Payment: No payment method on file. [Add payment method](#)

Coupon: You have an active coupon for \$7.00 off for 2 years, until 2020-07-02.

Extra info ⓘ: You have not added any additional information for your receipts. [Add information](#)

Payment history

You have not made any payments.

Amounts shown in USD

Create a Repository

- Click on Start a Project to create a repository.




- After naming your repository, choose the private option for your repository.

Name repository and select either public or private. Next, check initialize README box. Then, click “create repository”

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

 gadsone ▾

Repository name

cmssc2018 ✓

Great repository names are short and memorable. Need inspiration? How about **studious-octo-doodle**.

Description (optional)



Public

Anyone can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

☒ Initialize this repository with a README

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None ▾

Add a license: None ▾



Create repository

You have successfully created a private repository. You can now add files and invite others.

The screenshot shows the GitHub interface for a newly created private repository named 'cmsc2018' by user 'gadsons'. The repository is currently empty, with no description, website, or topics provided. The interface includes navigation tabs for Code, Issues, Pull requests, Projects, Wiki, Insights, and Settings. Below the repository name, it shows 1 commit, 1 branch, 0 releases, and 1 contributor. A 'Branch: master' dropdown and a 'New pull request' button are visible. The 'Initial commit' section shows a file named 'README.md' added just now. The repository content area displays the text 'cmsc2018'.

gadsons / cmsc2018 Private

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

No description, website, or topics provided. Edit

Add topics

1 commit 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

gadsons Initial commit Latest commit ac32c4d just now

README.md Initial commit just now

README.md

cmsc2018

Download GitHub Desktop

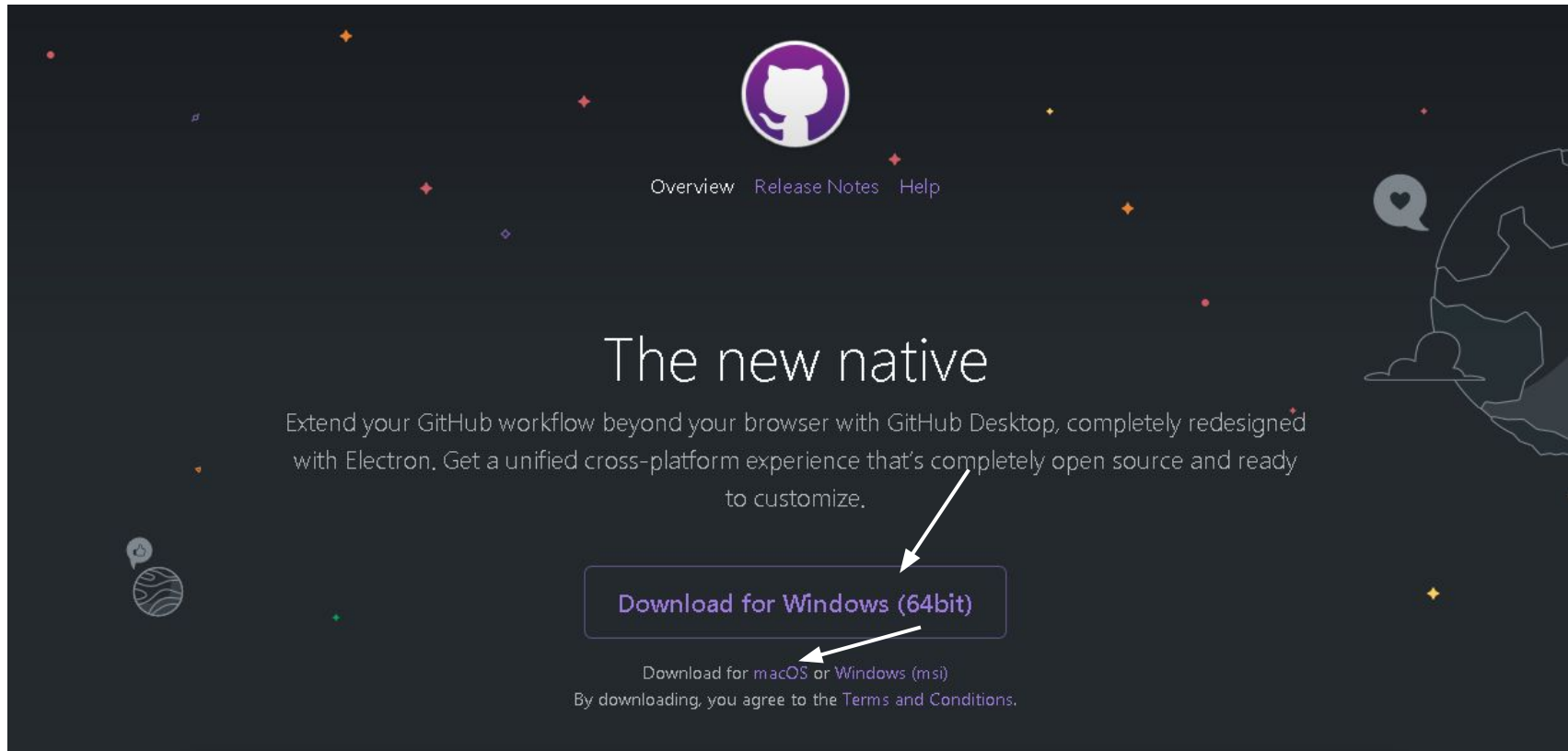
Download GitHub desktop to manage your workflow for Windows and macOS.

<https://desktop.github.com/>

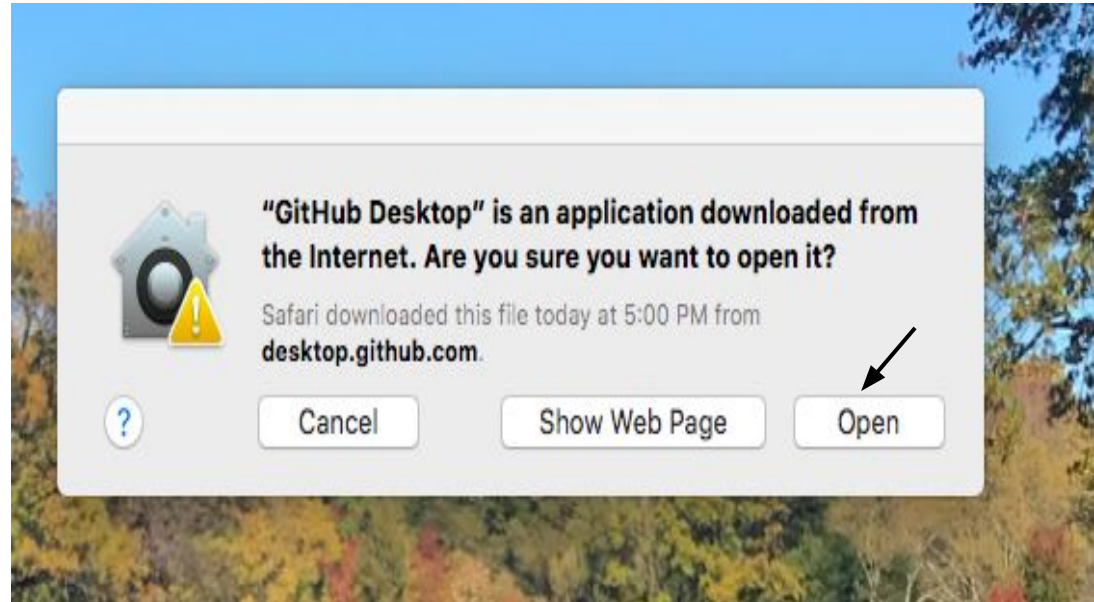
Then complete the following installation steps:



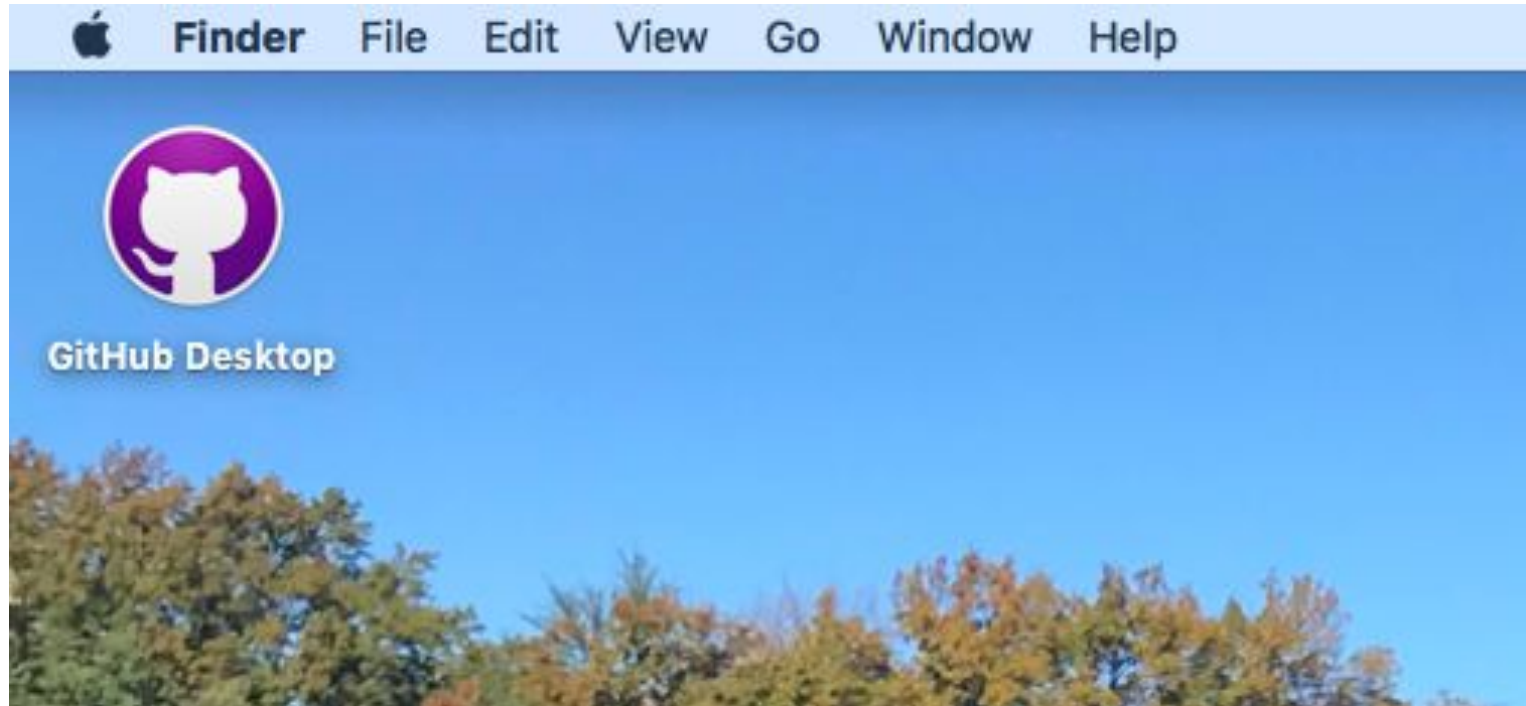
Download the 64-bit version for Windows or macOS.



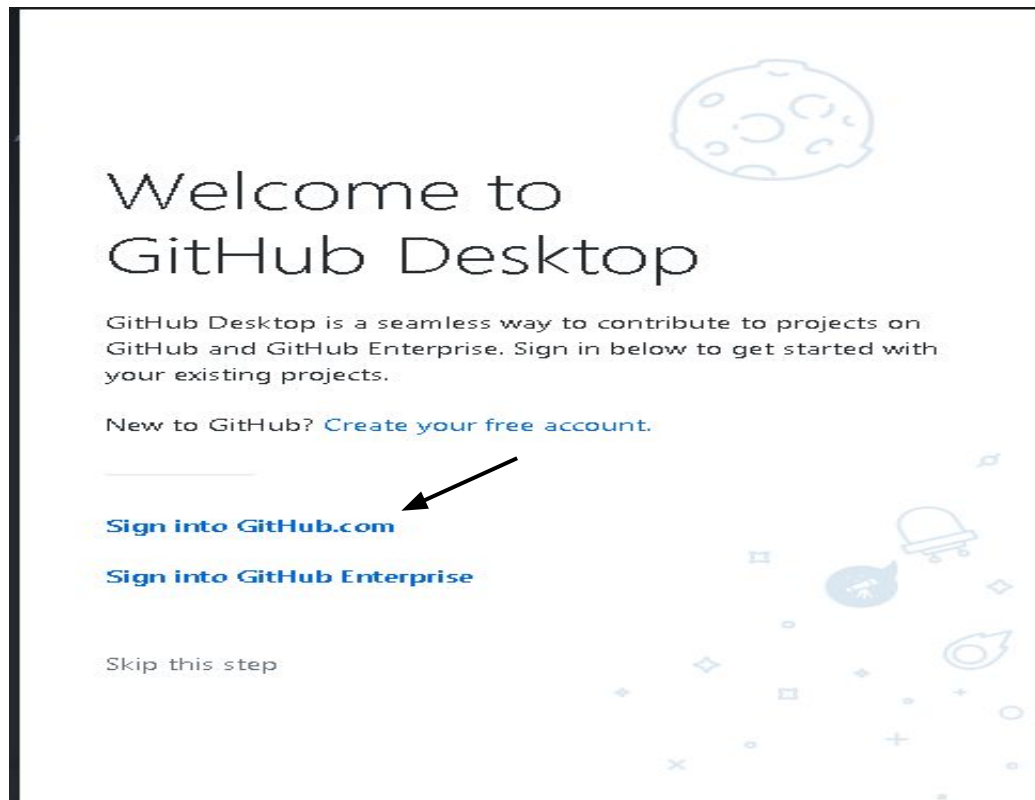
Run GitHub Desktop for Windows or macOS



In macOS, open the GitHub desktop application.



Select “Sign into GitHub.com” for both Windows and macOS



Login to GitHub Desktop

Sign in to GitHub.com

Username or email address

gadsone

Password

Sign in

Cancel

[Forgot password?](#)

[Sign in using your browser](#)

Configure Git

This is used to identify the commits you create. Anyone will be able to see this information if you publish commits.

Name

gadsone

Email

40774370+gadsone@users.noreply.github.com

Continue

Cancel

Example commit

Fix all the things

 gadsone committed 30 minutes ago

Make GitHub Desktop better!

Would you like to help us improve GitHub Desktop by periodically submitting [anonymous usage data](#)?

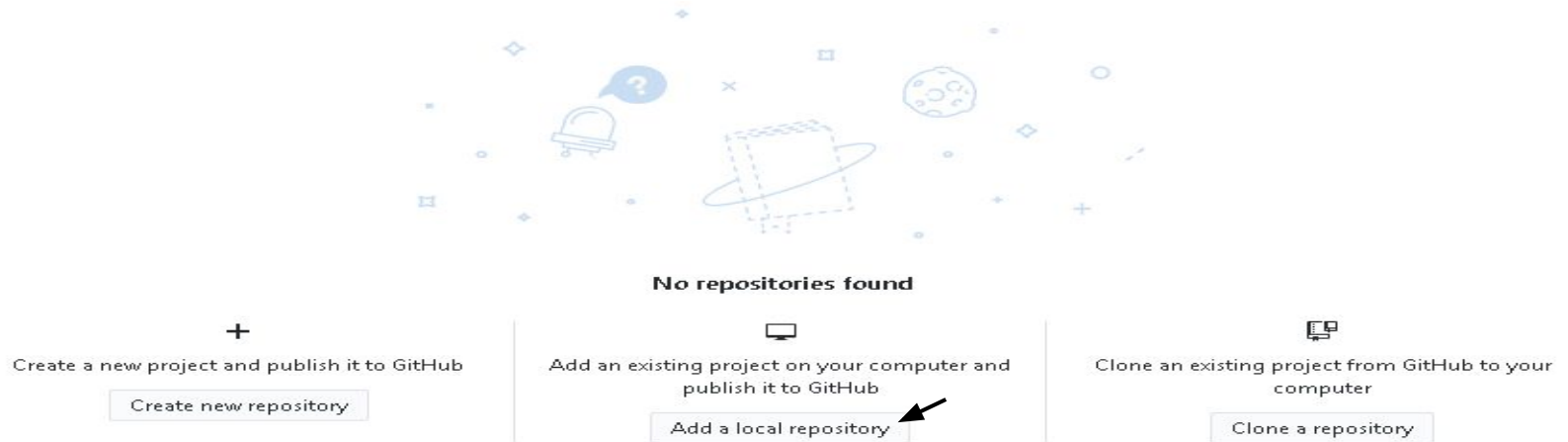
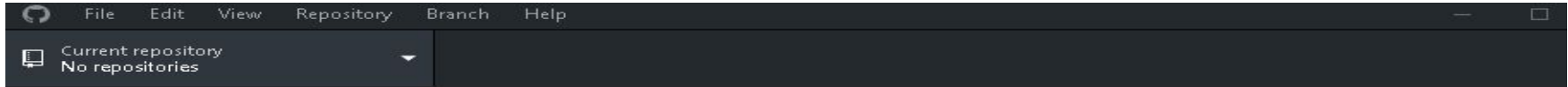
☒ Yes, submit anonymized usage data

Finish

Cancel

Choose Repository

Select “Add a Local Repository” to clone a repository from GitHub.com. You can also create a repository and clone one from your computer.



Alternatively, you can drag and drop a local repository here to add it.

Select a repository from GitHub.com

Choose local path on your computer

Select “Clone”

Clone a repository

GitHub.com

Enterprise

URL

Filter

Your repositories

- gadsone/cmssc269
- gadsone/goodstart
- gadsone/testinggithub
- guidoambasz/testing_github1

Local path

C:\Users\egadson\Documents\GitHub

Choose...

Clone

Cancel

Clone a repository

GitHub.com

Enterprise

URL

Filter

Your repositories

- gadsone/cmssc269
- gadsone/goodstart
- gadsone/testinggithub
- guidoambasz/testing_github1

Local path

C:\Users\egadson\Documents\GitHub\cmssc269

Choose...

Clone

Cancel

Clone a repository

GitHub.com

Enterprise

URL

Filter

Your repositories

- gadsone/cmssc269
- gadsone/goodstart
- gadsone/testinggithub
- guidoambasz/testing_github1

Local path

C:\Users\egadson\Documents\GitHub\cmssc269

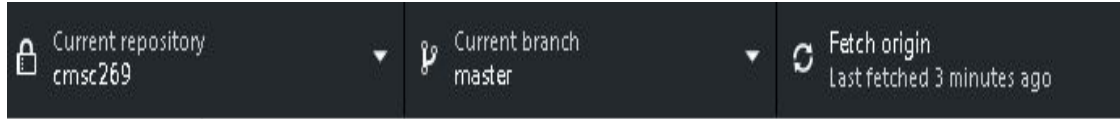
Choose...

Clone

Cancel

How to Use GitHub Desktop

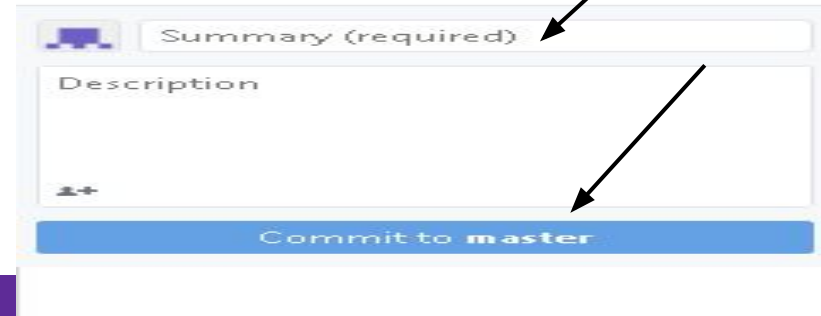
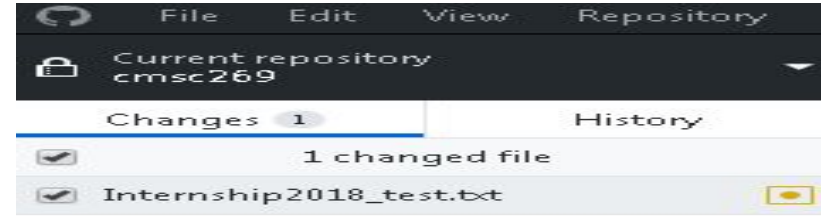
- Click “fetch origin” to git pull (all information from GitHub.com)



- Locate folder where your repository is located and add or change files. (*Remember local path on your computer*)

Files added/changes will show under “Changes” tab.

- Add a summary of what was changed (a message)
- You can add a description but it is not necessary
- Click “Commit to [branch]”
- Select “Push Origin” to push changes to GitHub.com



How to Add Collaborators in GitHub.com

Select a repository and choose the “settings” tab.

ProTip! Updating your profile with your name, location, and a profile picture helps other GitHub users get to know you. [Edit profile](#) ✕

Overview Repositories 3 Stars 0 Followers 0 Following 0

Popular repositories

goodstart

testinggithub
whadsinasidnoas

Customize your pinned repositories

22 contributions in the last year

Contribution settings ▾

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Mon													
Wed													
Fri													

[Learn how we count contributions.](#)

Less ■ ■ ■ ■ More

Contribution activity

July 2018

Jump to ▾ 2018

gadsone / testinggithub

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights **Settings**

Options

- Collaborators
- Webhooks
- Integrations & services
- Deploy keys

Moderation

- Interaction limits

Settings

Repository name

testinggithub [Rename](#)

Features

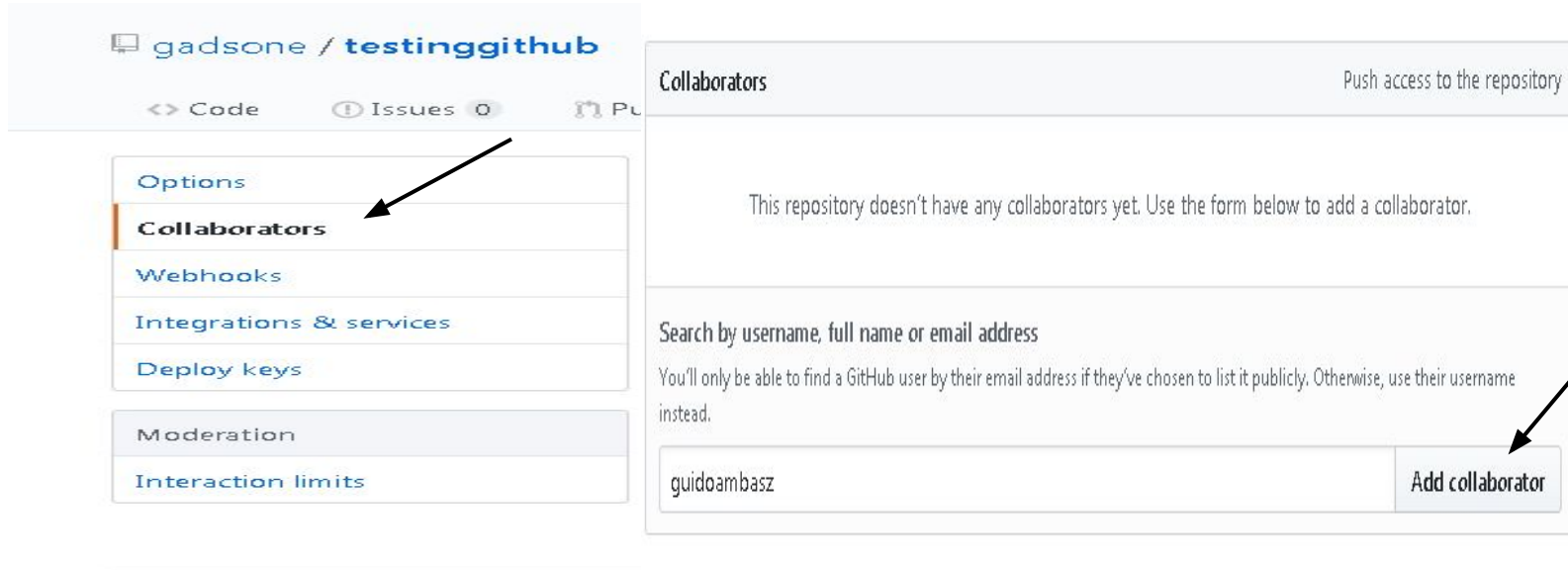
- ☒ **Wikis**
GitHub Wikis is a simple way to let others contribute content. Any GitHub user can create and edit pages to use for documentation, examples, support, or anything you wish.
- ☒ **Restrict editing to collaborators only**
Public wikis will still be readable by everyone.
- ☒ **Issues**
Issues integrate lightweight task tracking into your repository. Keep projects on track with issue labels and milestones, and reference them in commit messages.

Get organized with issue templates

Give contributors issue templates that help you cut through the noise

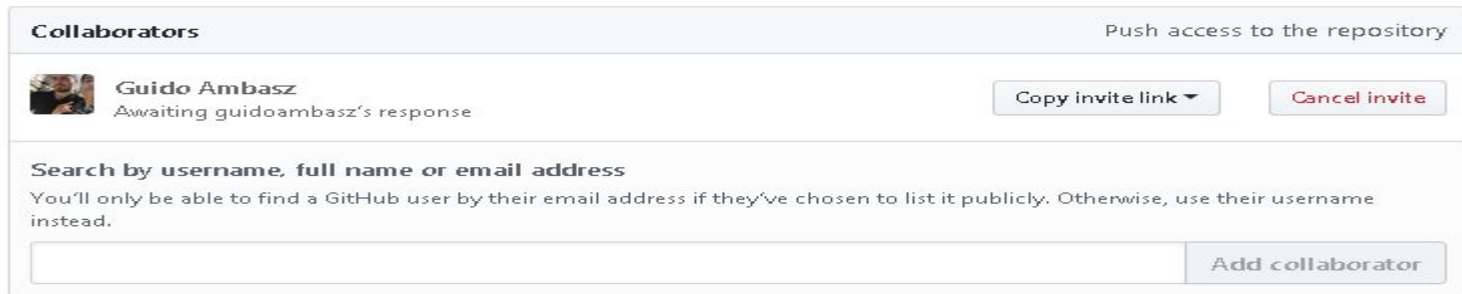
[Set up templates](#)

Choose “Collaborators” tab and type in username of co-author(s). Select add collaborator



The screenshot shows the GitHub interface for the repository 'testinggithub' under the user 'gadsone'. The left sidebar contains a menu with 'Options', 'Collaborators' (highlighted with an orange bar and an arrow), 'Webhooks', 'Integrations & services', 'Deploy keys', 'Moderation', and 'Interaction limits'. The main content area is titled 'Collaborators' with a subtitle 'Push access to the repository'. It contains the text: 'This repository doesn't have any collaborators yet. Use the form below to add a collaborator.' Below this is a search section titled 'Search by username, full name or email address' with a subtext: 'You'll only be able to find a GitHub user by their email address if they've chosen to list it publicly. Otherwise, use their username instead.' A search input field contains the text 'guidoambasz', and an arrow points to the 'Add collaborator' button.

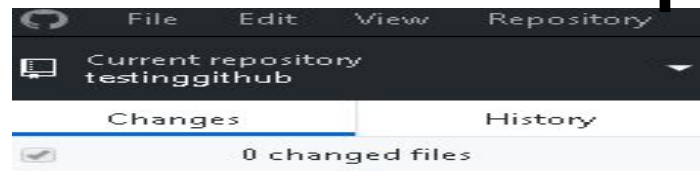
Co-author(s) should check their email to confirm invite.



The screenshot shows the GitHub interface for the repository 'testinggithub' under the user 'gadsone'. The left sidebar contains a menu with 'Options', 'Collaborators' (highlighted with an orange bar), 'Webhooks', 'Integrations & services', 'Deploy keys', 'Moderation', and 'Interaction limits'. The main content area is titled 'Collaborators' with a subtitle 'Push access to the repository'. It shows a collaborator 'Guido Ambasz' with a profile picture and the status 'Awaiting guidoambasz's response'. To the right of the collaborator name are two buttons: 'Copy invite link' and 'Cancel invite'. Below this is a search section titled 'Search by username, full name or email address' with a subtext: 'You'll only be able to find a GitHub user by their email address if they've chosen to list it publicly. Otherwise, use their username instead.' A search input field is empty, and an arrow points to the 'Add collaborator' button.

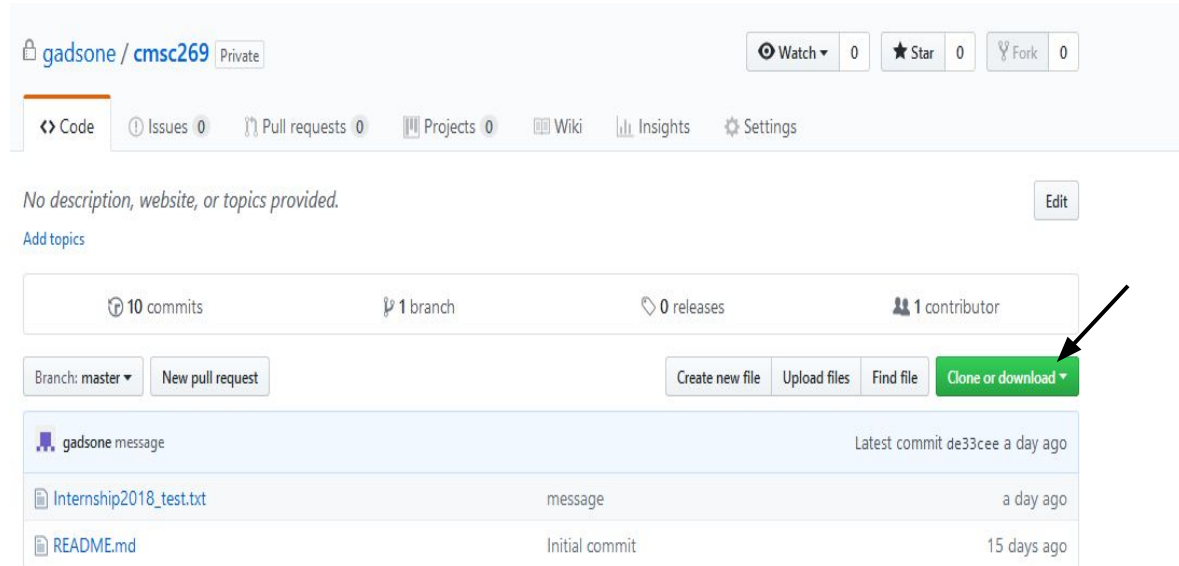
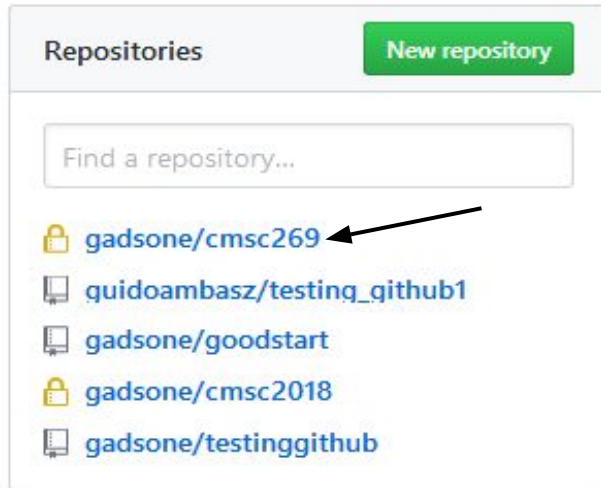
How to Add Collaborators in GitHub Desktop

You can also add co-author(s) by selecting the “add co-authors” icon located in the description box each time you commit a change in a branch.



Download the Repository to Your Computer

After you click on the link (Clone or Download) you should be able to see this page. Click on 'Clone or download' and copy the link:



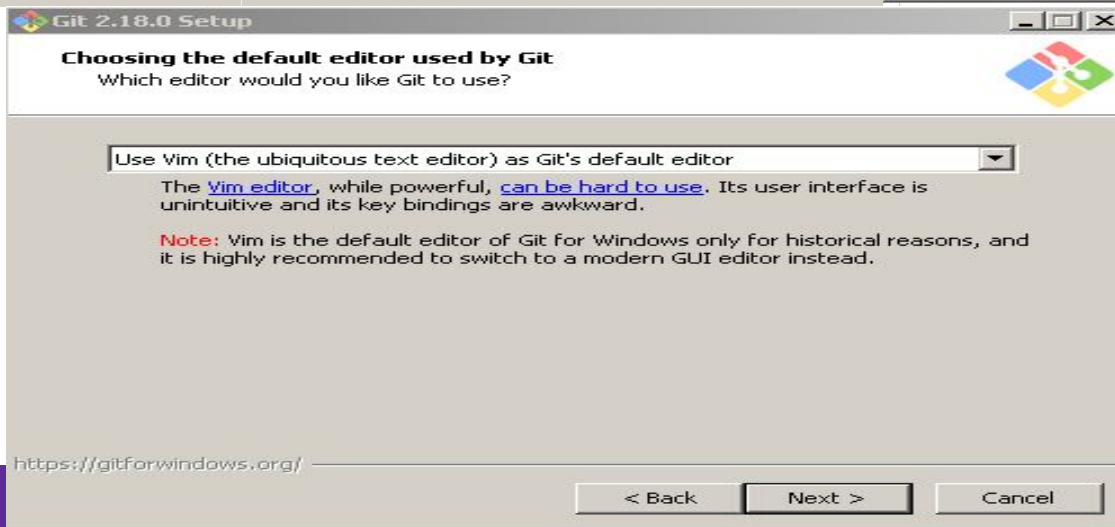
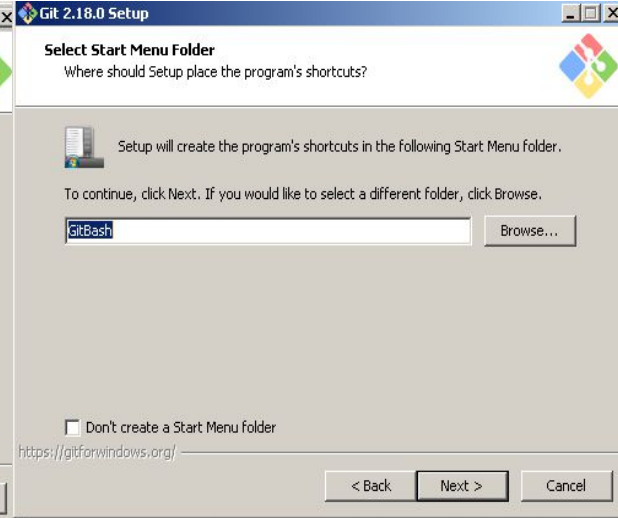
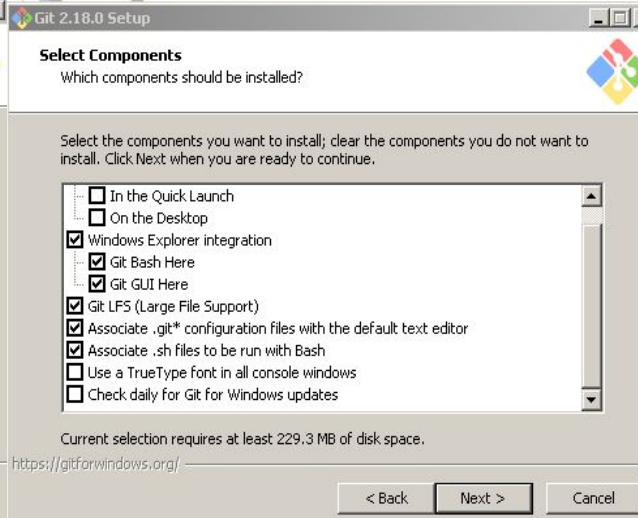
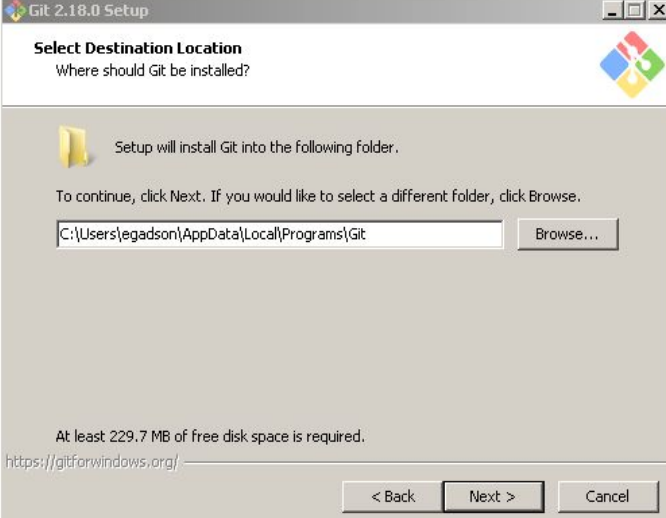
Download GitBash

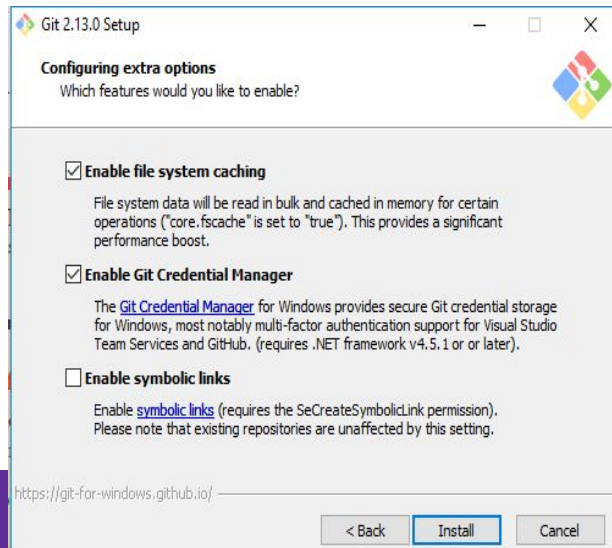
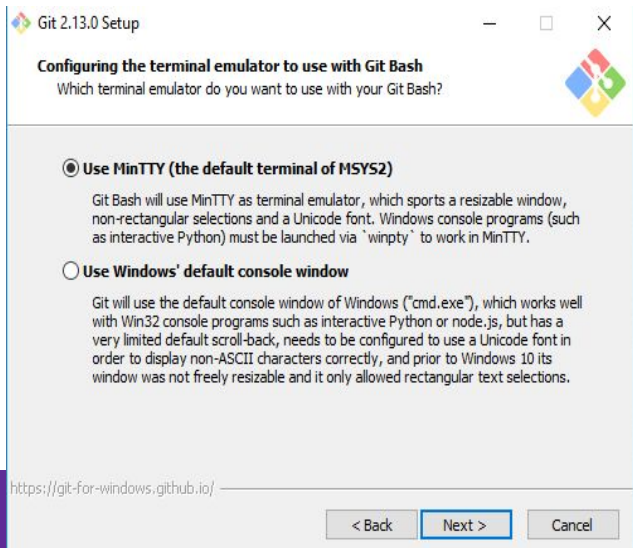
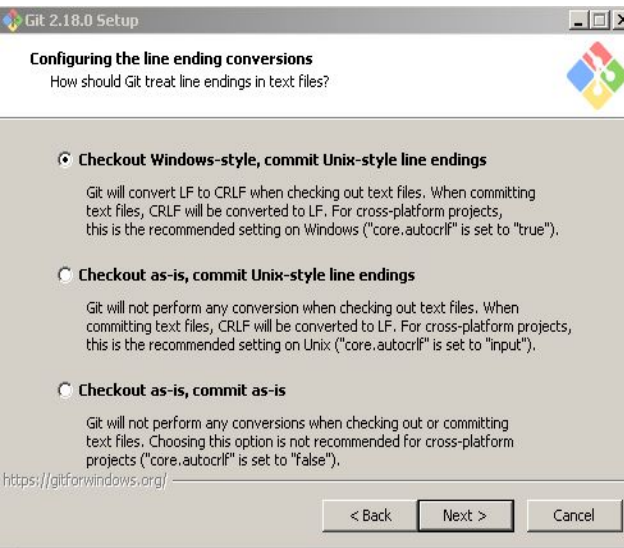
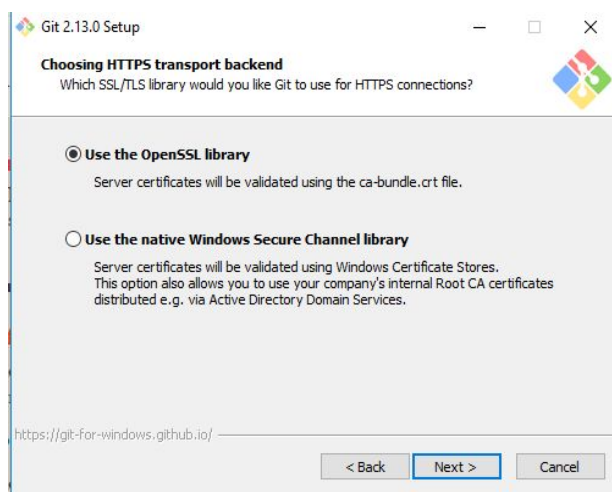
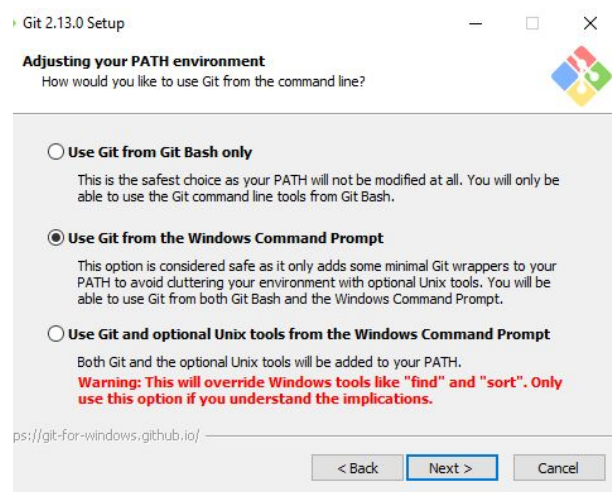
Download GitBash, a repository control system for your computer.

<https://git-scm.com/download/win>

Then complete the installation with the following steps:

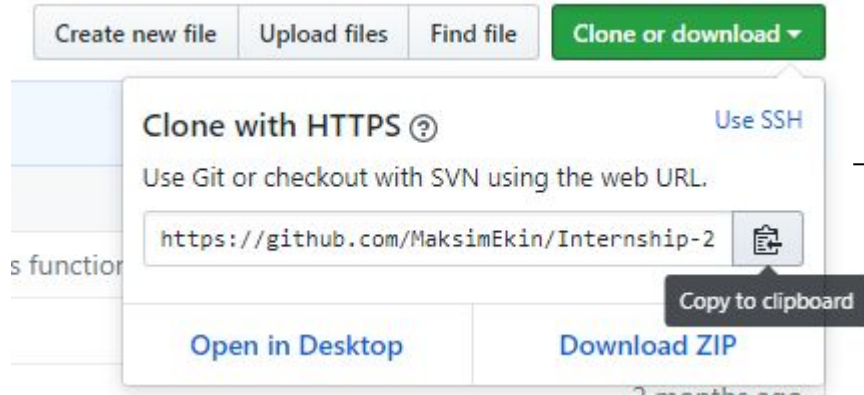






GitBash

To download the contents, type in the command console “git clone (the link you copied from the website or from clone and download) and press enter” after you specify where you want to download your contents (follow screenshot). Go to the location you specified and make sure the folder is there.

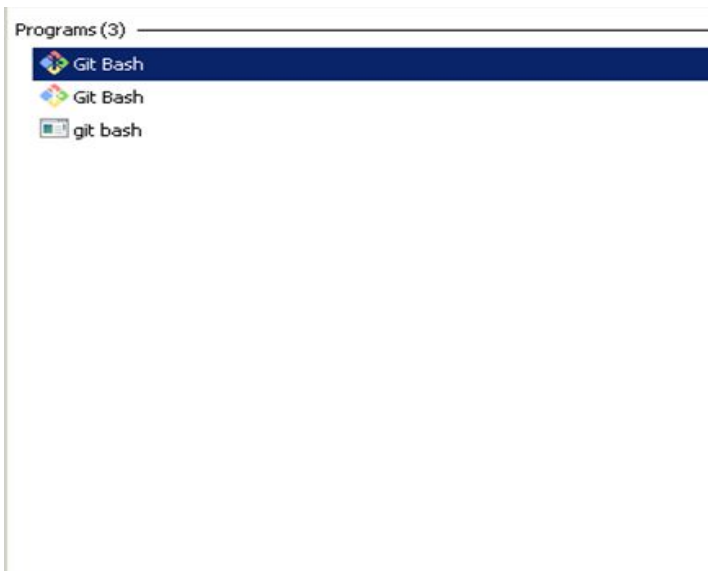


```
MINGW64/c/Users/xboxa/Documents
xboxa@DESKTOP-CCDJU5D MINGW64 ~
$ cd Documents
xboxa@DESKTOP-CCDJU5D MINGW64 ~/Documents
$ git clone https://github.com/vindictiv3x/Internship-2017.git
Cloning into 'Internship-2017'...
remote: Counting objects: 73, done.
remote: Compressing objects: 100% (43/43), done.
remote: Total 73 (delta 17), reused 73 (delta 17), pack-reused 0
Unpacking objects: 100% (73/73), done.
xboxa@DESKTOP-CCDJU5D MINGW64 ~/Documents
$ |
```

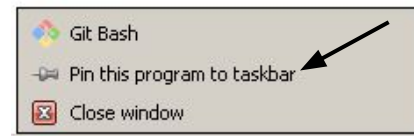
GitBash

After downloading the repository to the location you'd like to have as your workplace, use the start menu to open GitBash. You can pin to taskbar by right-clicking on the program.

1



2



How To Use GitBash

- First, change directory by entering in cd repository name.

```
egadson@RLCTC211C630272 MINGW64 ~  
$ cd cmsc269
```

- Next, locate folder where your repository is located and add files.
- Then, git add changes you have made to your files.

```
egadson@RLCTC211C630272 MINGW64 ~/cmsc269 (master)  
$ git add peopleallover.txt
```

Commit Changes and Push into GitHub

- Then `git commit -m "notes"` to add message and commit the changes to the repository.

```
egadson@RLCTC211C630272 MINGW64 ~/cm5c269 (master)
$ git commit -m "made changes"
[master 74a4776] made changes
```

- Lastly, 'git push' to push your changes to the repository.

```
egadson@RLCTC211C630272 MINGW64 ~/cm5c269 (master)
$ git push
Enumerating objects: 6, done.
```

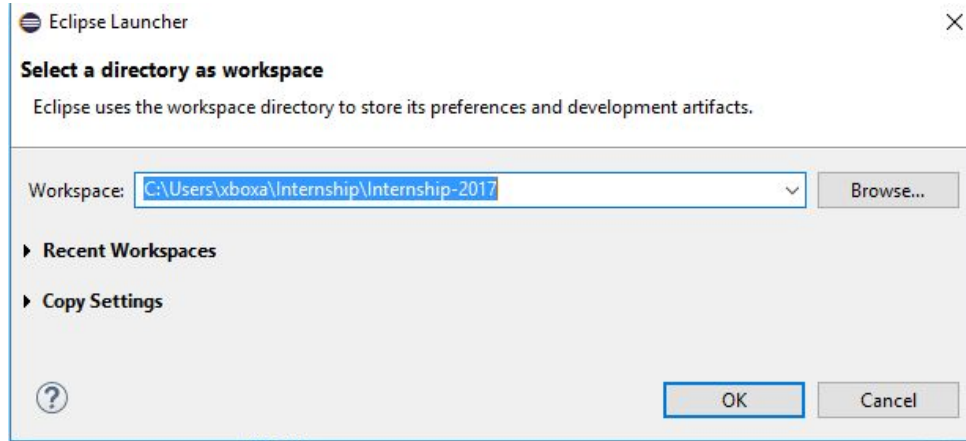
Using Git Pull

- 'Git pull' will pull the data on the repository. The changes will appear in your code. If there are changes in same line, eclipse will show it and let you choose the one you'd like to use.

```
egadson@RLCTC211C630272 MINGW64 ~/cm5c269 (master)  
$ git pull  
Already up to date.
```

GitBash - Eclipse Workspace

Choose your Eclipse workspace (same place where you cloned your repository to your computer)



GitBash - Eclipse Workspace

Create all the projects with same names in Eclipse manually. Codes should appear after you manually create the projects.



References & Quick Links

Educational Resources for Students: <https://education.github.com/pack> ,
<https://education.github.com/>

GitHub: <https://github.com/>

GitBash: <https://git-scm.com/download/win>

GitHub Desktop: <https://desktop.github.com/>

GitHub Glossary: <https://help.github.com/articles/github-glossary/>

GitHub Youtube Channel: <https://www.youtube.com/user/GitHubGuides>

The End

