



Remote Git (Github)

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Remote Git

Using a remote server is just having a computer holding a copy of your project, and its history. You don't have to push all your commits into it, you can just push the commits you want to share. Your friends then pull the commits that interest them and apply them to their own repositories.

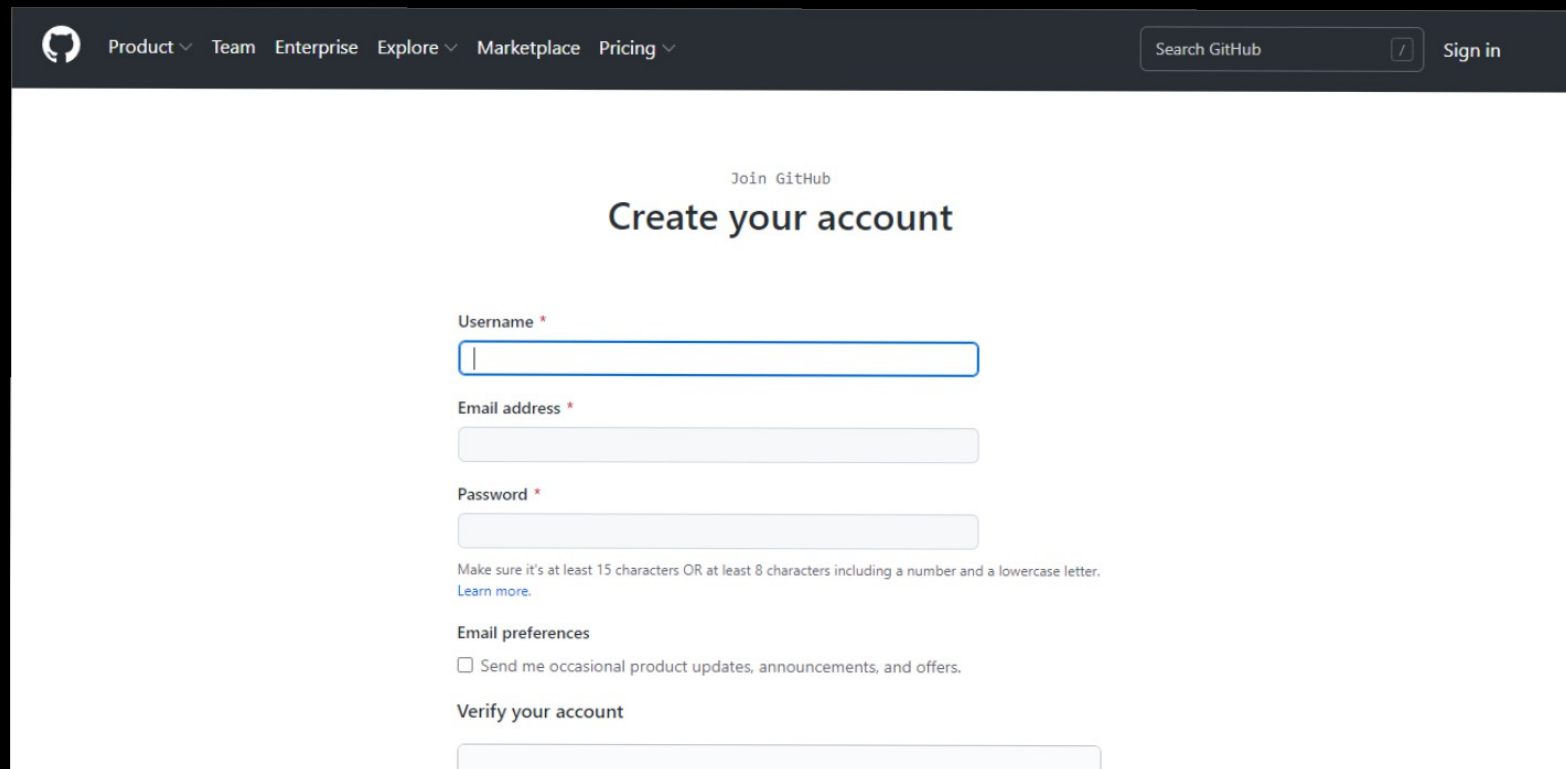
What is github?

- GitHub is a website where you can host your projects
- Git is GitHub's version control system
- A version control system is a software that helps you track changes to files or changes to software in a Git repository.

Creating a github account

- Just go to the GitHub website and follow the procedure

Creating a github account



The screenshot shows the GitHub 'Create your account' page. At the top is a dark navigation bar with the GitHub logo, links for Product, Team, Enterprise, Explore, Marketplace, and Pricing, a search bar labeled 'Search GitHub', and a 'Sign in' link. The main content area is white and features the heading 'Join GitHub' followed by 'Create your account'. Below this are three input fields: 'Username', 'Email address', and 'Password', each with a red asterisk indicating it is required. The 'Password' field has a small hint below it: 'Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)'. Under the password field is the 'Email preferences' section with a checkbox labeled 'Send me occasional product updates, announcements, and offers.' At the bottom is the 'Verify your account' section with an input field.

Product Team Enterprise Explore Marketplace Pricing Search GitHub Sign in

Join GitHub

Create your account

Username *

Email address *

Password *

Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

Email preferences

☐ Send me occasional product updates, announcements, and offers.

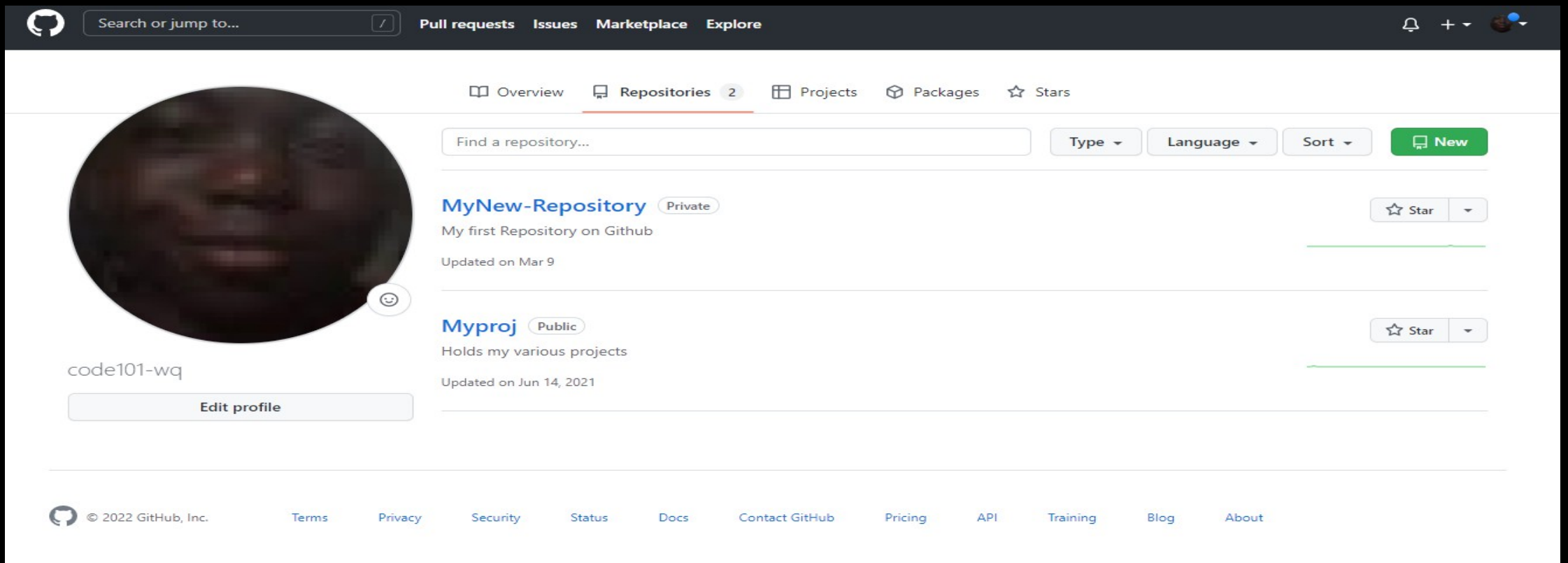
Verify your account



Github repositories

- Now that we have created the account let's create GitHub repositories
- A Git repository is any local folder in your computer which has a project which you are working on.

Github repositories



The screenshot displays the GitHub profile of a user named 'code101-wq'. The profile includes a circular avatar, the username 'code101-wq', and an 'Edit profile' button. The 'Repositories' tab is selected, showing a list of two repositories: 'MyNew-Repository' (Private, updated Mar 9) and 'Myproj' (Public, updated Jun 14, 2021). The interface features a dark header with navigation links, a search bar, and a footer with legal and informational links.

Header: Search or jump to... / Pull requests Issues Marketplace Explore

Profile: code101-wq Edit profile

Repositories:

- MyNew-Repository** (Private) My first Repository on Github Updated on Mar 9
- Myproj** (Public) Holds my various projects Updated on Jun 14, 2021

Footer: © 2022 GitHub, Inc. Terms Privacy Security Status Docs Contact GitHub Pricing API Training Blog About


CREATE A NEW REPOSITORY

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner *

Repository name *

 code101-wq ▾


 /

Calculator ✓


Great repository names are: Calculator is available. Need inspiration? How about [glowing-lamp?](#)

Description (optional)

My program

☒  Public

Anyone on the internet can see this repository. You choose who can commit.

☐  Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

Add .gitignore

Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

Choose a license

Linking Repositories

Now that we have our local repository, it's time to link it to the remote! To list, add, or remove remotes, we will use the `git remote` command. For example, let's link our current remotes using this command: `git remote`

You shouldn't get any result because it's a brand-new repository, and we haven't linked any remote to it. Let's add one now.

You will need the unique link to your repository to be able to link a local repository to it; so, grab yours from the previous section.

You will also need to create a name for your remote repository. That way, you can have multiple remotes within a single project. It may be necessary in the case where the test and production remotes are different for each other. The default name is "origin" per convention. Although you can choose any name, it is recommended to use origin as the name of the remote where teammates share their work.

Linking Repositories

The command to add a link to a remote is simple. It's

```
git remote add [name] [link]
```

Hence, to add a link to the newly created repository, you'll have to execute this command: `git remote add origin https://github.com/code101-wq/Calculatorm`

That's it! You can check if the remote has been added by executing `git remote` or `git remote -v` to get more information.

Pushing a project into a repository

- Commit means saving changes of files to the git repository
- The git push command is used to upload local repository content to a remote repository

Pushing a project into a repository

```
Command Prompt
Microsoft Windows [Version 10.0.18362.418]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\JULIUS>cd desktop

C:\Users\JULIUS\Desktop>cd calculator

C:\Users\JULIUS\Desktop\calculator>git log
fatal: not a git repository (or any of the parent directories): .git

C:\Users\JULIUS\Desktop\calculator>echo "# Calculatorm" >> README.md

C:\Users\JULIUS\Desktop\calculator>git init
Initialized empty Git repository in C:/Users/JULIUS/Desktop/calculator/.git/

C:\Users\JULIUS\Desktop\calculator>git add README.md

C:\Users\JULIUS\Desktop\calculator>git commit -m "first commit"
[master (root-commit) ad95dbf] first commit
 1 file changed, 1 insertion(+)
 create mode 100644 README.md

C:\Users\JULIUS\Desktop\calculator>git branch -M main

C:\Users\JULIUS\Desktop\calculator>git remote add origin https://github.com/code101-wq/Calculatorm.git

C:\Users\JULIUS\Desktop\calculator>git push -u origin main
```

Pushing a project into a repository

The screenshot shows a GitHub repository page for 'code101-wq / Calculatorm'. The repository is public and has 1 branch (main) and 0 tags. The commit history shows a single commit by 'code101-wq' with the message 'first commit' and hash 'ad95dbf', made 10 minutes ago. The README.md file is displayed, showing the text '# Calculatorm'. The right sidebar contains sections for 'About' (My program), 'Releases' (No releases published), and 'Packages' (No packages published).

code101-wq / Calculatorm Public

Pin Unwatch 1 Fork 0 Star 0

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags

Go to file Add file Code

code101-wq first commit ad95dbf 10 minutes ago 1 commit

README.md first commit 10 minutes ago

README.md

"# Calculatorm"

About

My program

Readme

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

<https://github.com/code101-wq/Calculatorm/wiki>

Pushing a project into a repository

- Now we want to push the calculator program in to the Git repository
- We first need to commit it to our local repository before we then add it to our GitHub repository
- Before we commit we need to add the project to a staging area using the command:
`git add <file_name>`
- Then we can commit it to the local repository using the command:
`git commit -m "added <file_name>(commit message)"`

Then we use the command `git push` to send it on our GitHub repository

Pushing to Remote Repositories 2

We finally got our local and remote repositories linked. It's time to push our project to GitHub so we can share our work.

Pushing commits to a remote repository is very simple; but first, let's create some commits to push. In your working directory, create a file called "README.md" and put in the description of your project in Markdown. For example, here is my README.md file:

A simple app to manage your daily tasks

Features

- * List of daily tasks

Now, let's add the newly created file to the staging area by using `git add`.

```
git add README.md
```

Now is the time to commit our project with `git commit`. As commit message, many developers choose "Initial commit" when it's the first. It's not a rule, and you can change it if you want to.

```
git commit
```

Pushing to Remote Repositories 2

Since we've done these many times already, you should be comfortable with staging and committing by now.

Just like that, we have our first commit! Now, we can push those changes to the remote repository. The command to push changes to remote is simple; you just need the name of the remote repository and the branch to be pushed. Since we haven't created any branch yet (we'll learn about branches in a later section), our only branch is called "master." The git push command is

```
git push <remote_name> <branch_name>
```

So, in our case, the command will be `git push origin master`

You will be prompted to input your username and password for authentication. This is to ensure that you are the one making changes to the repository.