

The graphic features a central shield-shaped badge with a blue border and a dark blue background. The text "Microsoft Learn" is at the top, "STUDENT AMBASSADOR" is on a banner across the middle, and a stylized person icon is at the bottom. The badge is surrounded by three glowing lines: a horizontal blue line on the left, a diagonal blue line on the right, and a purple line that curves from the bottom left to the right. Small glowing dots are placed along these lines. The background is dark gray with faint cloud shapes.

Microsoft  
Learn

STUDENT AMBASSADOR



Microsoft Learn  
Student Ambassadors



# GIT IT DONE

*Abhinav Rajput & Devanshu Sinha*

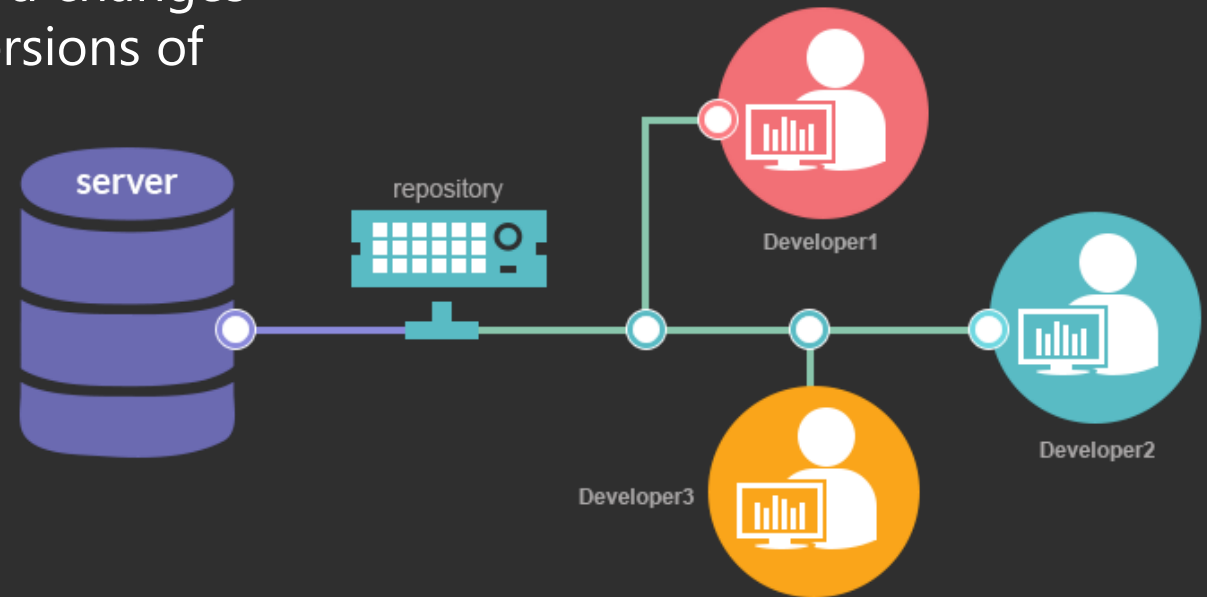


# Git, GitHub - 101



# Version Control System

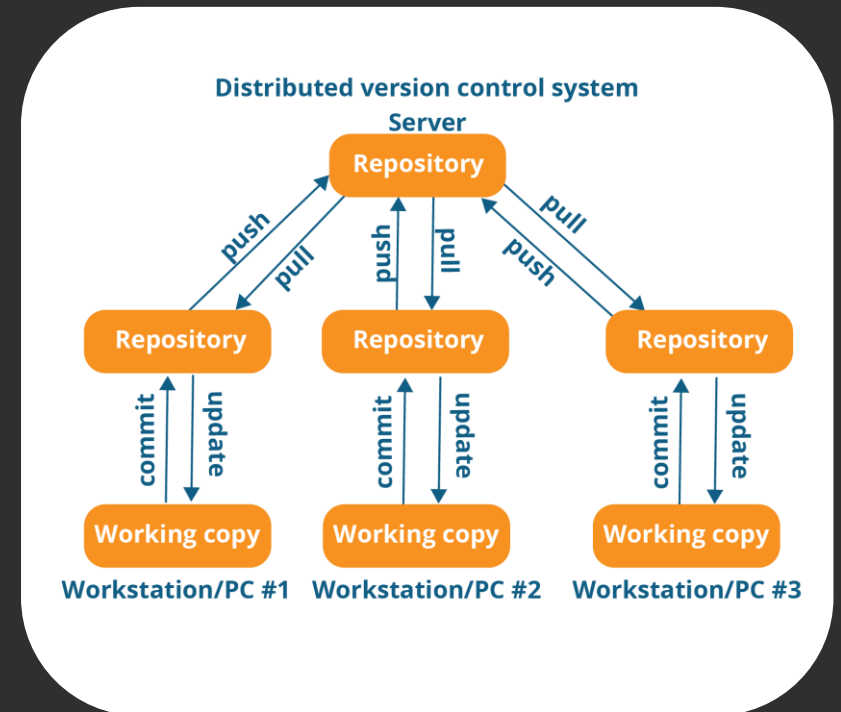
Essentially, it's a system that allows you to record changes to files over time, thus, you can view specific versions of those files later on.



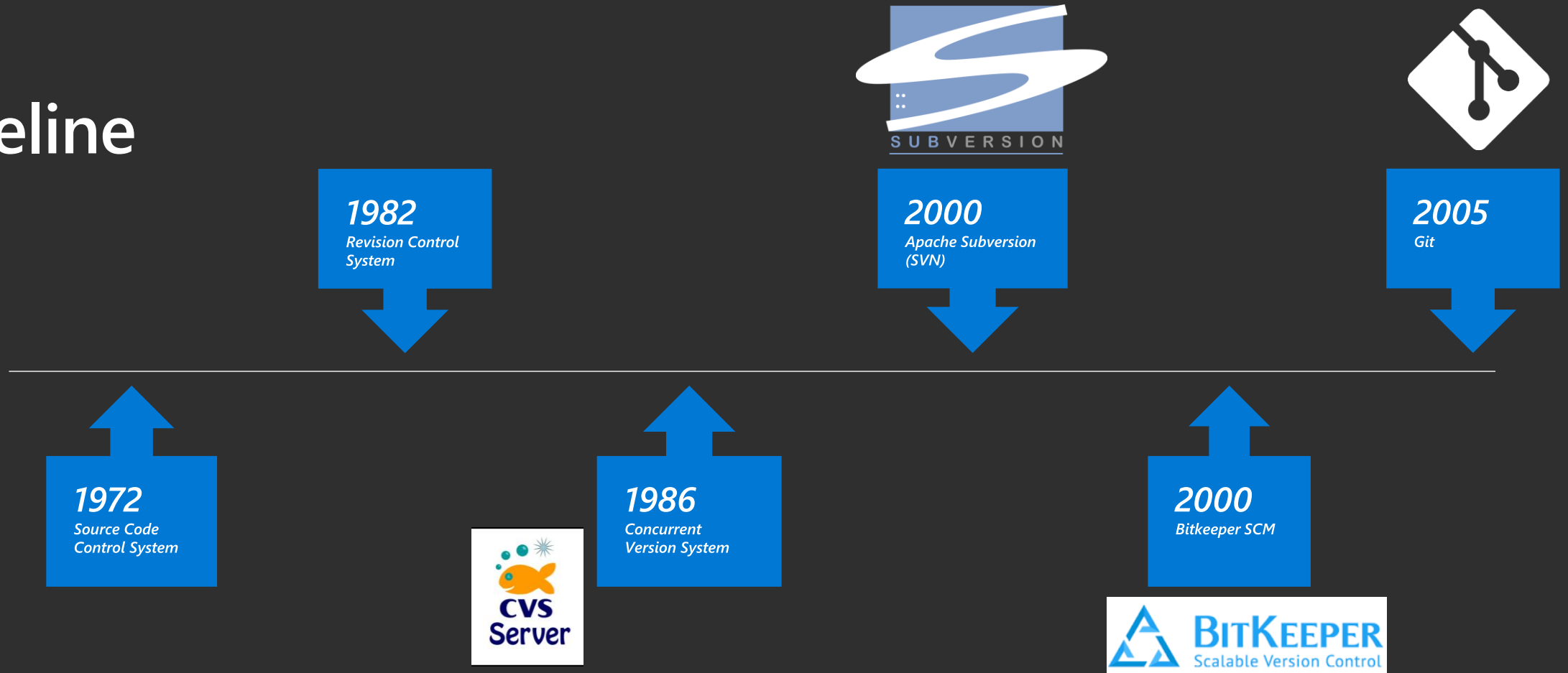


# Git

Git is software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. Its goals include speed, data integrity, and support for distributed, non-linear workflows (thousands of parallel branches running on different systems)



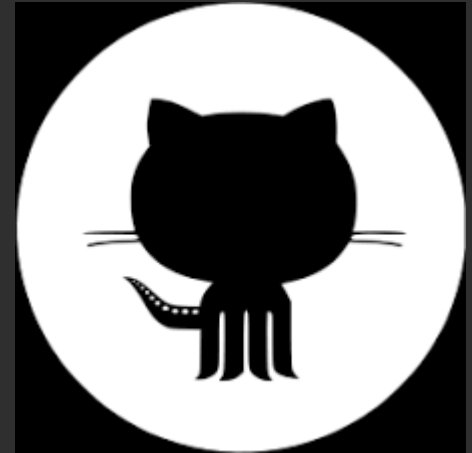
# Timeline



# GitHub

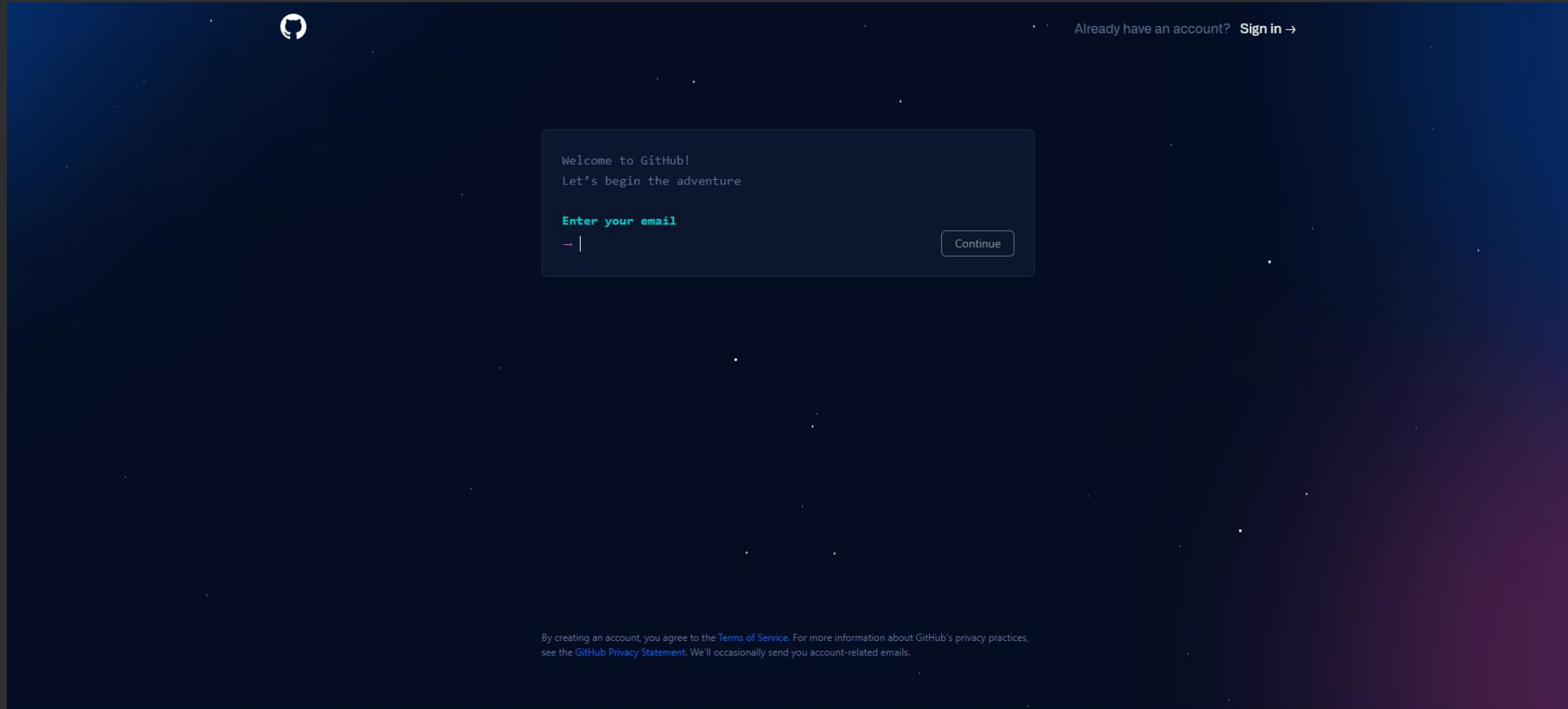
GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management (SCM) functionality of Git, plus its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, continuous integration and wikis for every project. Headquartered in California, it has been a subsidiary of *Microsoft* since 2018.

It is commonly used to host open-source projects. As of November 2021, GitHub reports having over 73 million developers and more than 200 million repositories (including at least 28 million public repositories). It is the largest source code host as of November 2021.



***Octocat***

# Sign Up Page



The image shows the GitHub sign-up page. At the top left is the GitHub logo. At the top right, there is a link "Already have an account? Sign in →". In the center, there is a dark blue box with the text "Welcome to GitHub!" and "Let's begin the adventure". Below this, there is a label "Enter your email" and a text input field with a red cursor. To the right of the input field is a "Continue" button. At the bottom, there is a small text block: "By creating an account, you agree to the Terms of Service. For more information about GitHub's privacy practices, see the GitHub Privacy Statement. We'll occasionally send you account-related emails."

GitHub

Already have an account? [Sign in](#) →

Welcome to GitHub!  
Let's begin the adventure

Enter your email

— |

Continue

By creating an account, you agree to the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#). We'll occasionally send you account-related emails.

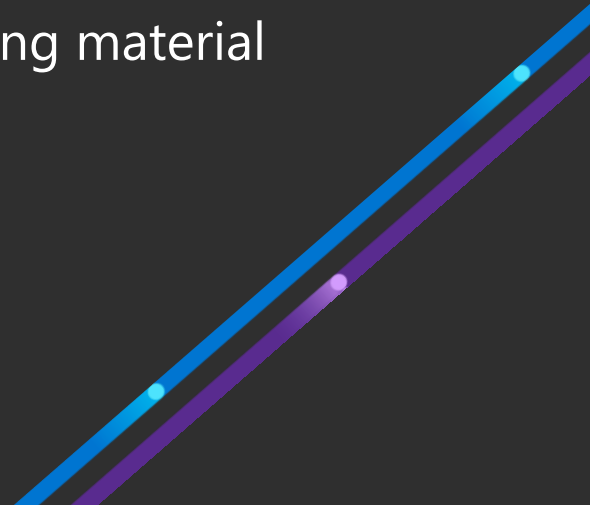


# Use Case

- Developers

- Work in a team projects
- Maintain a project with version control
- Develop a portfolio for recruiters
- To be able to contribute to Open Source projects
- GitHub is a necessary skillset required by organizational structures

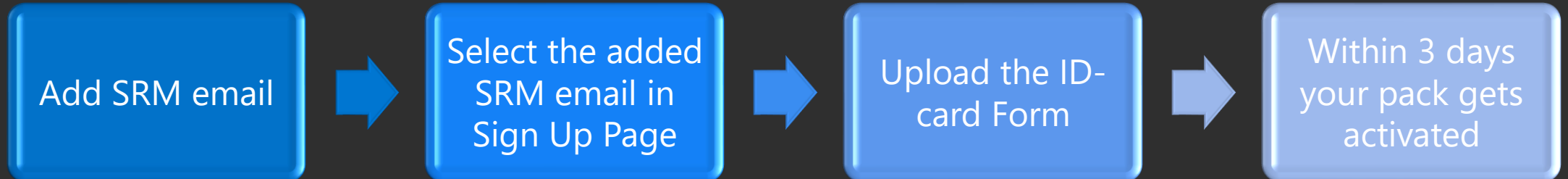
- Programmers

- Maintain a portfolio of Programming Projects
  - Maintaining the solution base to their problem
  - Storing notes and learning material
- 

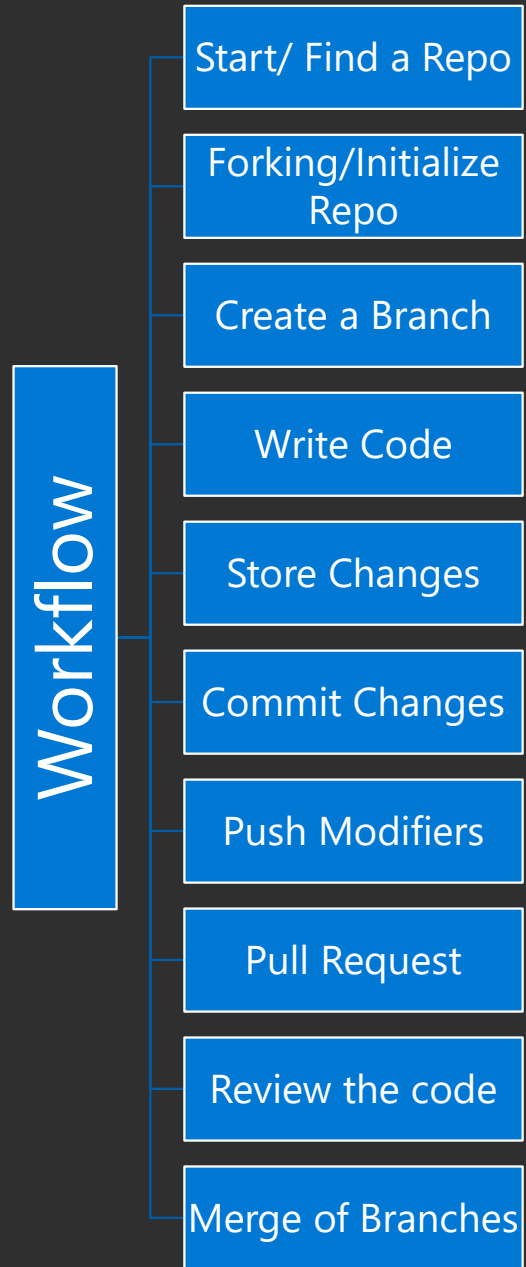
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# GitHub Student Developer Pack

GitHub Education is an platform which offers students real-world experience with free access to various developer tools. So what all do you get for free in GitHub Education? There is a range of software and learning tools one can get for free with GitHub Education



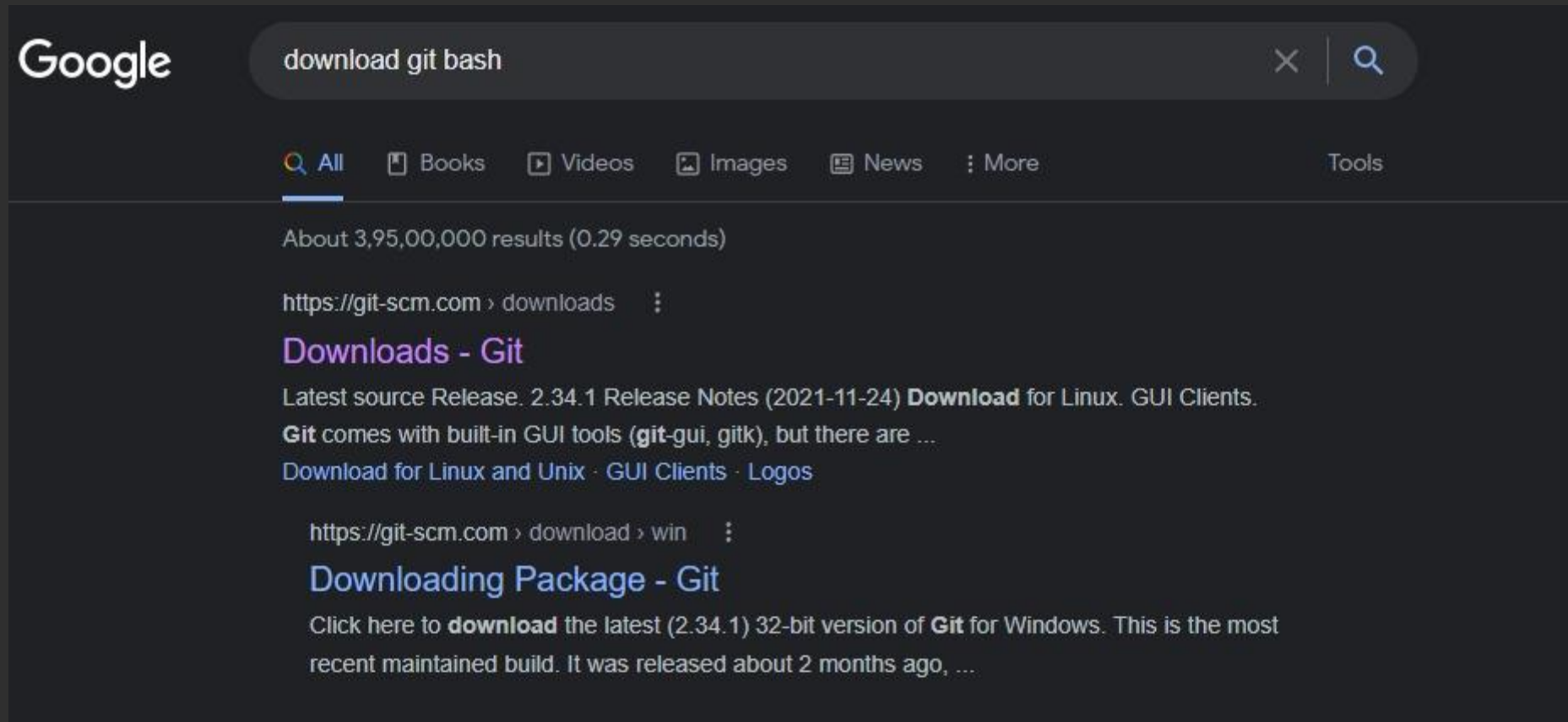
# Git Workflow



# CLI Tutorial



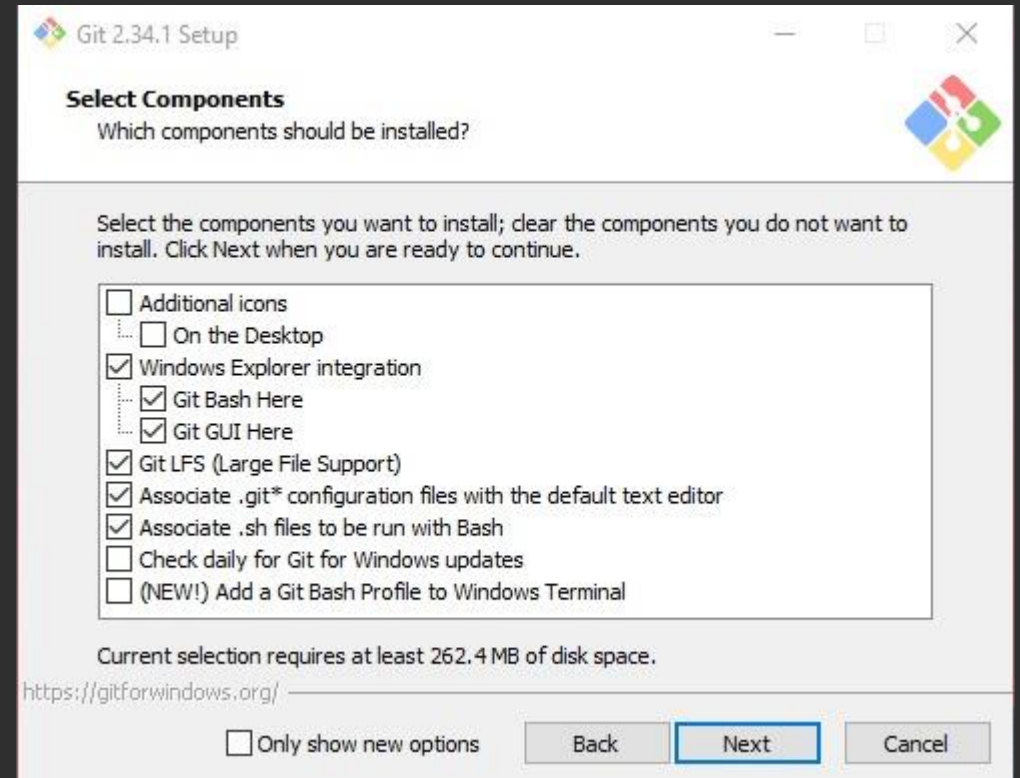
# Download Git Bash



# Download Git Bash



# Download Git Bash



# Setting Up GitBash

Set your username & email

- `git config --global user.name "Bob"`
- `git config --global user.email bob@example.com`

Generating SSH key

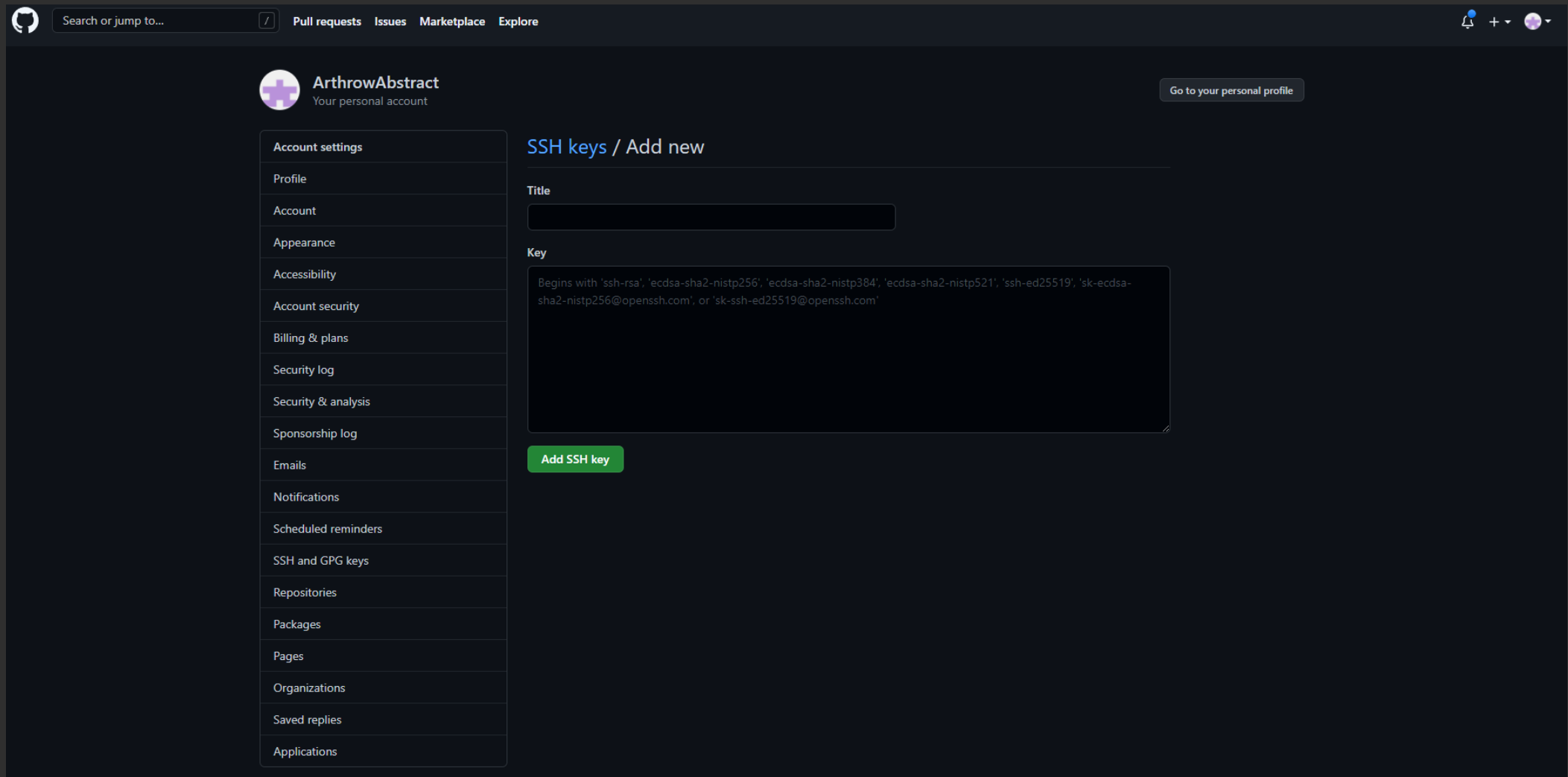
- `ssh-keygen -t ed25519 -C "your_email@example.com"`

Adding SSH key

- `eval "$(ssh-agent -s)"`
- `ssh-add ~/.ssh/id_ed25519`
- `clip < ~/.ssh/id_ed25519.pub`




# GitHub Page SSH and GPG Page




The screenshot shows the GitHub interface for a user named 'ArthrowAbstract'. The top navigation bar includes the GitHub logo, a search bar, and links for Pull requests, Issues, Marketplace, and Explore. The user's profile is shown with a purple and white avatar and a 'Go to your personal profile' button. On the left, a sidebar lists various account settings, with 'SSH and GPG keys' highlighted. The main content area is titled 'SSH keys / Add new' and contains a form with a 'Title' field and a 'Key' text area. The 'Key' field has a placeholder text: 'Begins with 'ssh-rsa', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', 'ecdsa-sha2-nistp521', 'ssh-ed25519', 'sk-ecdsa-sha2-nistp256@openssh.com', or 'sk-ssh-ed25519@openssh.com''. A green 'Add SSH key' button is at the bottom of the form.

Search or jump to...

Pull requests Issues Marketplace Explore

 Search or jump to...

 **ArthrowAbstract**  
Your personal account

[Go to your personal profile](#)

**Account settings**

- Profile
- Account
- Appearance
- Accessibility
- Account security
- Billing & plans
- Security log
- Security & analysis
- Sponsorship log
- Emails
- Notifications
- Scheduled reminders
- SSH and GPG keys**
- Repositories
- Packages
- Pages
- Organizations
- Saved replies
- Applications

**SSH keys / Add new**

**Title**

**Key**

Begins with 'ssh-rsa', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', 'ecdsa-sha2-nistp521', 'ssh-ed25519', 'sk-ecdsa-sha2-nistp256@openssh.com', or 'sk-ssh-ed25519@openssh.com'

[Add SSH key](#)

# GitHub Page SSH and GPG Page

The screenshot shows the GitHub interface for a user named ArthrowAbstract. The top navigation bar includes the GitHub logo, a search bar, and links to Pull requests, Issues, Marketplace, and Explore. The user's profile picture and name are in the top right, along with a 'Go to your personal profile' button. On the left, a sidebar lists various account settings, with 'SSH and GPG keys' highlighted. The main content area is divided into three sections: 'SSH keys', 'GPG keys', and 'Vigilant mode'. The 'SSH keys' section shows a single key named 'ROG\_3' with a redacted value and a 'Delete' button. The 'GPG keys' section states there are no keys associated with the account. The 'Vigilant mode' section has a checkbox for 'Flag unsigned commits as unverified' which is currently unchecked.

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

ArthrowAbstract  
Your personal account

Go to your personal profile

Account settings  
Profile  
Account  
Appearance  
Accessibility  
Account security  
Billing & plans  
Security log  
Security & analysis  
Sponsorship log  
Emails  
Notifications  
Scheduled reminders  
SSH and GPG keys  
Repositories  
Packages  
Pages  
Organizations  
Saved replies  
Applications

## SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

Key Name	Added On	Last Used	Actions
ROG_3	Added on Jan 7, 2022	Last used within the last 3 weeks — Read/write	Delete

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH problems](#).

## GPG keys

New GPG key

There are no GPG keys associated with your account.

Learn how to [generate a GPG key](#) and add it to your account .

## Vigilant mode

☐ **Flag unsigned commits as unverified**  
This will include any commit attributed to your account but not signed with your GPG or S/MIME key.  
Note that this will include your existing unsigned commits.

[Learn about vigilant mode.](#)

# Starting with GitHub

- *git clone <link>*
- *cd git-it-done*
- *git checkout -b <branch name>*
- *git status*
- *git add .*
- *git add filename.xyz*
- *git commit -m "commit message"*
- *git push origin <your branch name>*

# Q/A

*Abhinav Singh Rajput & Devanshu Sinha*



**Thank you for joining!**  
*Stay tuned for our upcoming sessions.  
Follow our socials and stay up to date!*

