What is GitHub?

GitHub is the world’s largest, and most popular code hosting site. GitHub users have a choice of using either Git or Subversion as their VCS (Version Control System), to manage, maintain and deploy software projects. GitHub allows for free unlimited public code repositories all users. To maintain private repos, a monthly subscription is required. GitHub lets you create ‘organizations’ which basically function as regular accounts except that they always have at least one user account listed as their owner.

When was it created?

Found in 2008; however ,on February 24, 2009, GitHub team members announced, in a talk at Yahoo! headquarters, that within the first year of being online, GitHub had accumulated over 46,000 public repositories, 17,000 of which were formed in the previous month alone.

Why?

 It offers all of the distributed version control and source code management functionality of Git as well as adding its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, and wikis for every project.

By who?

Tom Preston-Werner   
Chris Wanstrath   
P. J. Hyett  
Scott Chacon

GitHub was developed by Chris Wanstrath, PJ Hyett, Tom Preston-Werner and Scott Chacon using Ruby on Rails, and started in February 2008. The company, GitHub, Inc., has existed since 2007 and is located in San Francisco.

What similar platforms exist?

* Bitbucket

Bitbucket is second only to GitHub in terms of popularity and usage. Bitbucket is free for individuals and organizations with 5 users or lesser, and it lets you have unlimited public and private repositories. Bitbucket allows you to push files using any Git client, or the Git command line.

* Gitlab

GitLab is a web-based Git-repository manager providing wiki, issue-tracking and CI/CD pipeline features, using an open-source license, developed by GitLab Inc.

* ScourceForge

SourceForge is a Web-based service that offers software developers a centralized online location to control and manage free and open-source software projects. It provides a source code repository, bug tracking, mirroring of downloads for load balancing, a wiki for documentation, developer and user mailing lists, user-support forums, user-written reviews and ratings, a news bulletin, micro-blog for publishing project updates, and other features.

Why would you use such a platform?

To pull, push and share the code with the world. As when using Microsoft Word or Google Drive, you can have a version history of your code so that is not lost with every iteration. GitHub also tracks changes in a changelog, so you can know exactly what is changed each time. This feature is especially helpful for looking back in time and quickly identifying changes a collaborator made.

* Repository

a concept from the distributed revision control that refers to a data structure.

* Commit

command is used to save your changes to the local repository. ... Also note that in Git (not like in Subversion), a commitis not automatically transferred to the remote server.

* Push

command is used to upload local repository content to a remote repository.

* Branch

Branching is a feature available in most modern version control systems. Instead of copying files from directory to directory, Git stores a branch as a reference to a commit.

* Fork

is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project.

* Merge

way of putting a forked history back together again. The gitmerge command lets you take the independent lines of development created by git branch and integrate them into a single branch.

* Clone

command line utility which is used to target an existing repository and create a copy

* Pull

git merge to merge the retrieved branch heads into the current branch.

* Pull request

allows you tell others about changes you've pushed to a GitHub repository.

Commands:

After fork:

git clone https://github.com/MrGDS2/courses.git

git add README.md

git commit –m “[CS6432018 Update Readme.md](https://github.com/MrGDS2/courses/commit/7266f450830246ce148e858c0aa31f6956af1611)”

git push origin master