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Git Tutorial

Part 3

What is GitHub?

According to Wikipedia, GitHub is a Web-based git repository hosting service. It means that any person or company can use its hosting service to create, share and collaborate online code’s repository.

A git repository is basically a data structure which store files and folders and their history of changes.

When it was created?

Even though the company was only founded in February 8, 2008, the development of the platform began at October 1, 2007.

Why?

At the time GitHub was created there was no easy way to share a git repository besides repo.or.cz, which was really bad design and not really useful. Other solution was to set up user accounts on Unix machine and user it as a ad-hoc solution.

By who?

At a “I Can Has Ruby” meeting in San Francisco, Chris Wanstrath showed Tom Preston-Werner some software he was developing to use git from Ruby, when the later presented GitHub’s idea - Chris was immediately into it. Later PJ Hyett joined the team and helped developing the platform.

What similar platforms exist?

There is a lot of platforms for hosting versioning repositories, each supporting different kinds of versioning systems as git, mercurial, svn.

Some of them:

* BitBucket
* GitLab
* Unfuddle

Why would you use such a platform?

There is many reasons why someone would use such platform. Being able to collaborate in a distributed way in code development is a necessity for company and individual programmers. It is a good way to keep track of code changes, if the user needs to rollback some alteration or if a bug was introduced during the versions.

Part 5 - Give the definition of the following

Repository:

Data structure that represents files and folder changes history.

Commit:

To store current changes into the repository

Push:

Send commits to a remote repository.

Branch:

A detached history from main line, where one can implement new features without affecting the main.

Fork:

Creates a new repository from an existing one, allowing one to modify it without affecting original. It can be incorporated back via Pull Request.

Merge:

Incorporates changes from one branch into another.

Clone:

Creates a copy of the repository into a new directory. But differently from fork, your changes go to the main repository.

Pull:

Asking the repository for changes.

Pull request:

It is a request for changes committed to an external repository to be included in the main project.

Part 7

Because I did not have the permissions to directly push code into the main repository I forked it so I could do the necessary changes into the repository. After that, I added the modifications to the stash with git add and committed with git commit. Finally I pushed code back to my repository using git push and created a pull request.

Part 10

I mainly use GitHub for work and university projects. Some personal projects I have created in hackathons or just to learn, are there to but I do not consider myself a GitHub expert.

I know the basic commands for committing, branching, pushing and pulling code and some conflict resolving. But I know there is much more to know about it.

In my last job, I used git-flow tool (<http://jeffkreeftmeijer.com/2010/why-arent-you-using-git-flow/>) which was really interesting, it makes the branching workflow much more intuitive.

References

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