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Programming Languages Hw#3

*What is GitHub?*

Answer:  GitHub is a web-based hosting service for version control using Git. It is mostly used for computer code. It offers all of the distributed version control and source code management functionality of Git as well as adding its own features.

*When was it created?*

Answer: GitHub was created in 2008.It was created to help programmers connect together so that they could share their code. This has helped significantly in terms of collaboration and productivity.

*By who?*

Answer: Tom Preston-Werner along with friends Chris Wanstrath, P J Hyett and Scott Chacon. They all worked on it together after working on other projects and decided to create a project that would help them with their efficiency with their future projects.

*What similar platforms exist?*

Answer: BitBucket and Mercurial. These platforms are quite similar in the fact that they are group sharing. However, they are not quite as ubiquitous as Git-Hub .For this reason Git-Hub was and is the most sought after and used of all the group collaboration platforms for developers.

Part 5 define the terms.

**Repository**: is a data structure which stores metadata for a set of files or directory structure. Depending on whether the version control system in use is distributed or centralized, the whole set of information in the repository may be duplicated on every user's system or may be maintained on a single server.

**Commit:** A **commit**, or "revision", is an individual change to a file (or set of files). It's like when you save a file, except with Git, every time you save it creates a unique ID (a.k.a. the "SHA" or "hash") that allows you to keep record of what changes were made when and by who.

**Push:** Use git **push** to **push** commits made on your local branch to a remote repository. The git **push** command takes two arguments: A remote name, for example, origin. A branch name, for example, master.

**Branch:** A **branch** in Git is simply a lightweight movable pointer to one of these commits. The default **branch**name in Git is master. As you initially make commits, you're given a master **branch** that points to the last commit you made. Every time you commit, it moves forward automatically.

**Fork:** A **fork** is a copy of a repository. **Forking** a repository allows you to freely experiment with changes without affecting the original project. Most commonly, **forks**are used to either propose changes to someone else's project or to use someone else's project as a starting point for your own idea.

**Merge:** You can enforce one type of **merge** method, such as commit squashing or rebasing, by only enabling the desired method for your repository. When you click the default**Merge** pull request option on a pull request on **GitHub**, all commits from the feature branch are added to the base branch in a **merge** commit.

**Clone:Cloning** a git repository means that you create a local copy of the code provided by developer. You can simply do it with a command line: git **clone**

**Pull:** If you use git pull, you pull the changes from the remote repository into yours. Basically you can retrieve it without using permission.

**Pull request: Pull** requests let you tell others about changes you've pushed to a branch in a repository on **GitHub**. Once a**pull** request is opened, you can discuss and review the potential changes with collaborators and add follow-up commits before your changes are merged into the base branch.