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GitHub Exercise CS 639

Part 3:

GitHub is a service which allows software development and version control aspects of Git to be hosted online for developers to work together in an open source environment. It was created in 2008 by Chris Wanstrath, PJ Hyett, Tom Preston-Werner and Scott Chacon. GitHub is very useful because it allows multiple team members to work on the same code at the same time without interfering with each other through branching. It also helps keep version control and track history of changes to code.

Part 4:

Repository – A repository is a location that contains all your project’s files and file revision history. Repositories can be managed so that multiple people have access to the contents inside and can make changes collaboratively.

Commit – A commit is essentially a snapshot of your repository at a given time. Commits are used as a save or checkpoint to your work so that over time you can see the history of the repository and track any changes that have occurred.

Push – Push uploads all your local branch commits to the corresponding remote branch. This is very important as it is the main way to send your commit changes to GitHub.

Branch – A branch in GitHub is a separate set of code changes with a unique name. It is a way for multiple people to make their own individual changes to code without interfering with others. Each member of a team can make their own branch where they make their own changes that do not impact that of others.

Fork – Forking is essentially taking a copy of a repository from one user and having that copy as your own. After forking, you can make changes to the code in your forked repository without impacting the parent repository that you forked from.

Merge – A merge combines different development histories together. For example, if changes are made on both the local and remote repository, merge can be used to combine them to one final commit. The commit history is held intact, however.

Clone – Clone is used to create a copy of a repository or branch on your local machine. This is usually done at the beginning of interacting with a project to ensure you have all of the previous files.

Pull – Pull updates your current local branch with changes from the remote branch. It is the most common way to update your repository.

Pull Request – A pull request is where you propose your changes to someone you are collaborating with and request that they pull in your contribution and merge it with their respective branch.