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GitHub is a web-based platform that is used for version control and collaboration on software projects. It provides a way for developers to share their code and work together on projects, whether they are open source or proprietary. GitHub allows users to create repositories, which are essentially folders that contain the code for a project. Users can then create and edit files within the repository, make changes to the code, and track those changes over time.

GitHub also provides tools for managing issues, bugs, and feature requests, allowing teams to work together to solve problems and improve their code. It has become an essential tool for software developers and is widely used by individuals and organizations to collaborate on a wide range of projects. Additionally, GitHub also hosts millions of open-source projects which are available for anyone to use, modify and contribute to.

In GitHub, a branch is a separate copy of a repository's codebase that can be modified and developed independently of the main codebase. When a developer creates a new branch, they are essentially creating a copy of the codebase at a specific point in time, allowing them to make changes and test new features without affecting the main codebase.

Branches are useful for collaboration on a project because multiple developers can work on different features or bug fixes at the same time without interfering with each other's work. Once changes have been made on a branch, they can be merged back into the main codebase through a pull request, which allows other team members to review the changes and discuss any issues before the code is merged.

Branches also allow developers to experiment with new ideas without affecting the main codebase. If a new feature or change does not work out as expected, it can simply be discarded without affecting the main codebase or disrupting the work of other developers. This makes it easier to develop and test new features without risking the stability of the project.

The top ten terms you should know when you are utilizing GitHub are the following. Repository is a central location where code is stored and managed on GitHub. Branch, it is a copy of the repository that can be modified and developed independently of the main codebase. Commit, is a saved change to a file in a repository. Each commit has a unique ID and a message that describes the change. Pull Request is a way to propose changes to a repository. It allows other team members to review the changes and discuss any issues before the changes are merged into the main codebase. Merge is the process of combining changes from one branch into another. This typically involves resolving any conflicts between the changes. Fork is a copy of a repository that is created in a user's account. This allows users to make changes to the repository without affecting the original codebase. Issues are used to track bugs, feature requests, and other tasks related to a project. README is a file that provides information about a project, including how to install and use it. Clone is the process of creating a local copy of a repository on your own computer. Finally, GitHub Pages is a feature that allows users to create and host websites directly from their GitHub repository.

Sources :

https://www.youtube.com/watch?v=wPq-okUgiUU

https://docs.github.com/en/get-started