HOW GITHUB IS ARRANGED AND WORKS

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Today programming is one of the most interesting, progressive, and highly paid occupations. All industries are developing thanks to technologies that programmers create, so this profession is considered one of the most promising. Programmers' skills for different specializations will vary. However, not all tasks programmer can solve without a comrade. IT-guy sometimes needs help hand from another colleague. Of course, you can say that a computer specialist can just google all that he can't solve on his own. First of all, work in pairs is much quicker than working alone. Secondly, two programmer heads make half as many errors, that they call "bugs". And for that problem they invented GitHub!

GitHub is hosting: it allows you to store projects remotely on the server and work with them from anywhere in the world. Anyone who has a link has access to the files. By simple GitHub is software that helps programmers make changes in their projects and share them easily. One of the main features of GitHub is version control. All changes in the code can be tracked, so this is an indispensable thing in team development. Plus, for aspiring developers, GitHub is not only hosting but a way to build a portfolio. It allows you to demonstrate your skills and knowledge in the form of completed projects - in the Repositories tab.

What does a project on GitHub consist of? The main (or master) branch. This is, as a rule, the main branch, which contains the most current, working version of the project.
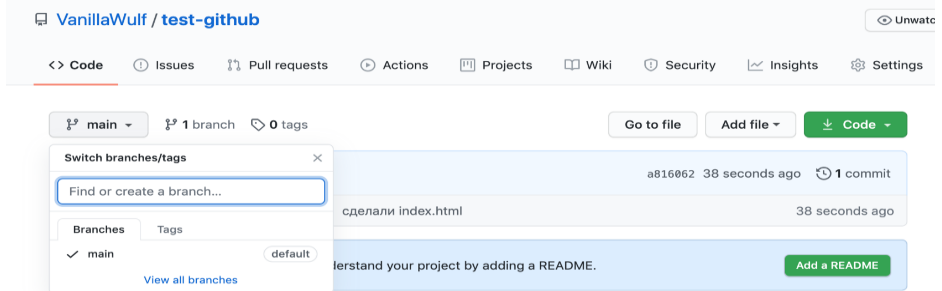

Branch & commits. A **branch** in GitHub is a development history consisting of changed files and messages (commits). Let's draw a branch with commits to visually represent it.

A **commit** is a special message in which we indicate what we did in this iteration. When we send the commit with the files to the server, we can view the changes if we click on it on GitHub. For the study, we will use a repository with a simple project. A commit consists of a message (for example, "made index.html") and the files that we attached to the commit. Time, author, and HEAD pointer are automatically added to them. The HEAD pointer allows flexible rollback to the desired version.
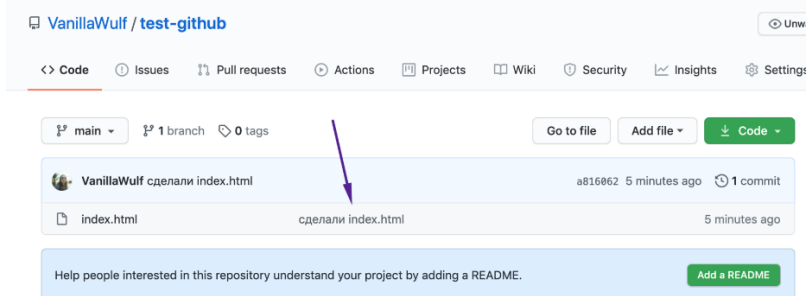
Code review. When several developers are working on a project, it is very important that everyone understands what is happening in the project, clarifies controversial points and proposes more optimal solutions. This process is called code review.
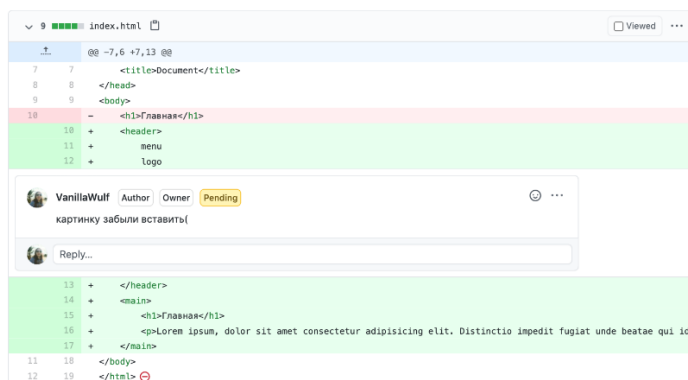
After the review is completed, all controversial points are resolved, errors are corrected and there is confirmation from other developers, the branches are merged. All commits from branch-1 go to main, and a merge mark appears in the commit history.

References:
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