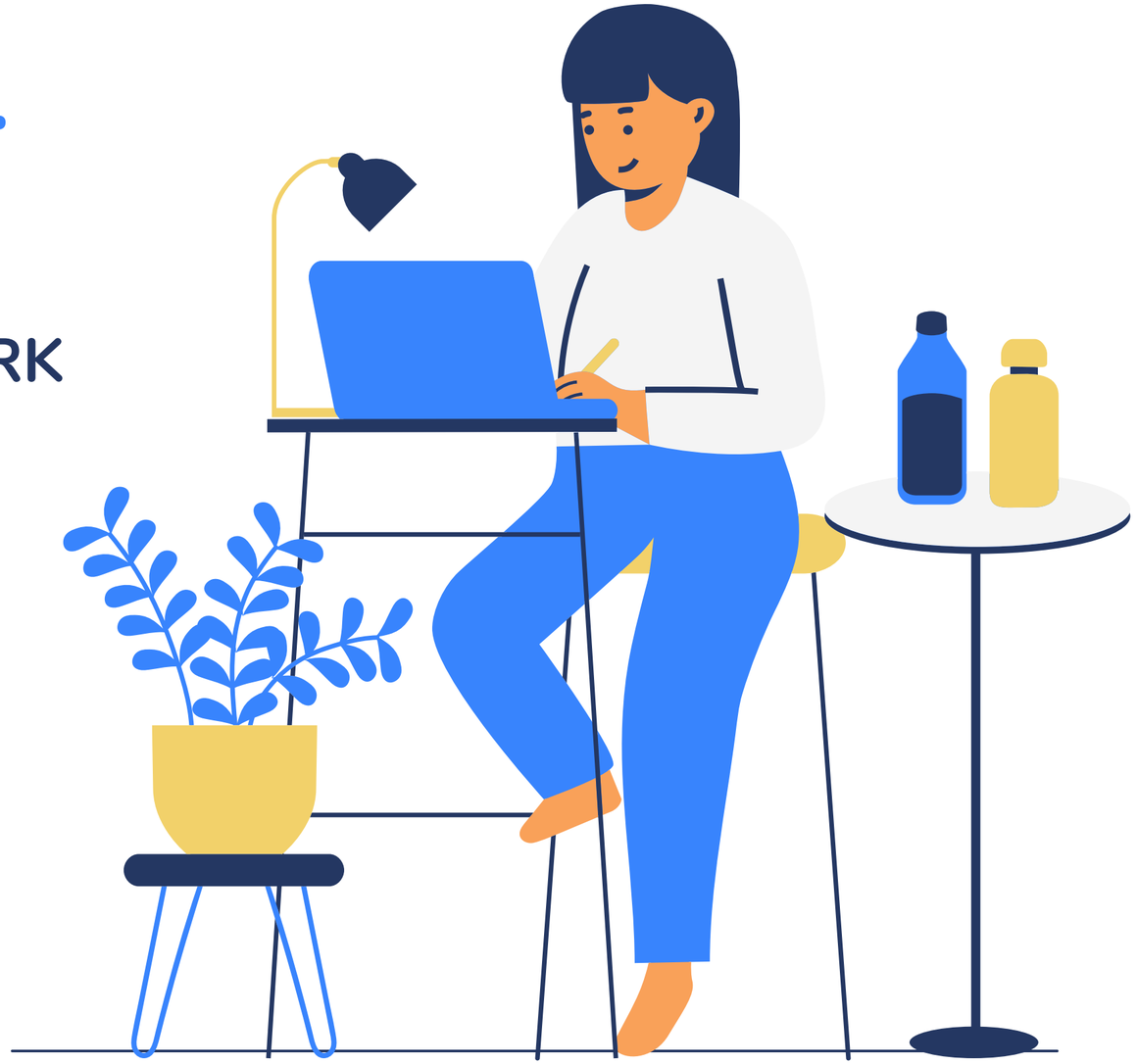
WORK-CASE №1

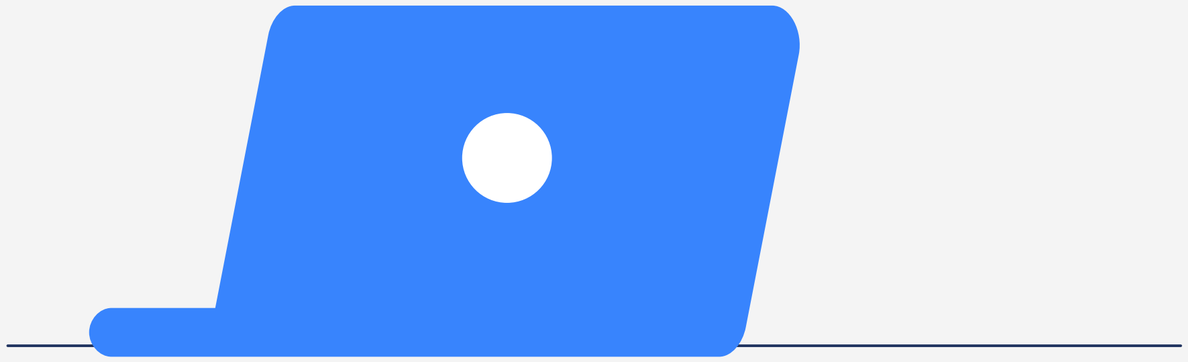
WHAT IS GITHUB AND HOW TO WORK WITH IT



Performed by a student of the BICS-13 group
Los Zlata Volodymyrivna

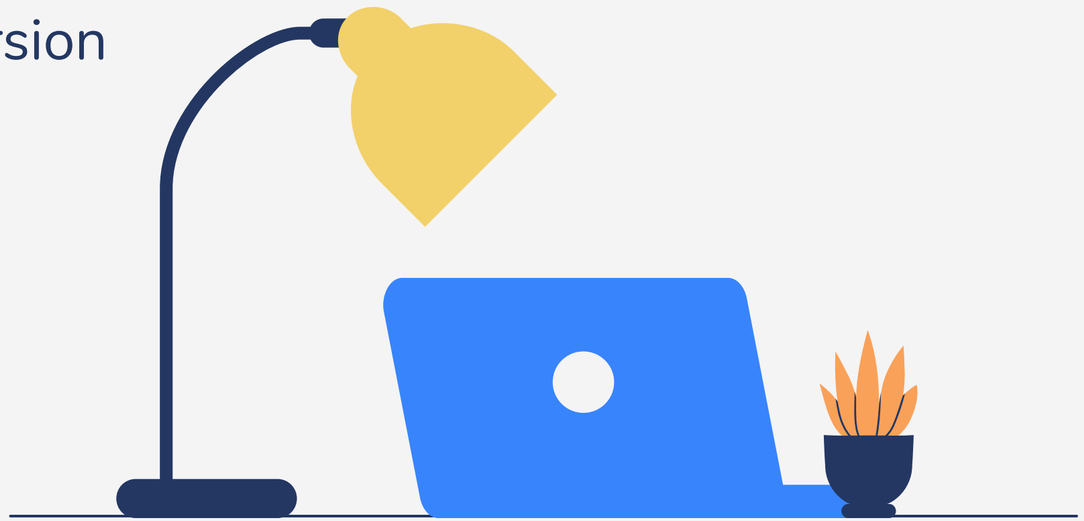
What is GitHub?

GitHub - is one of the largest web services for collaborative software development. There are paid and free usage plans. It is based on the Git version control system and is developed in Ruby on Rails and Erlang by GitHub, Inc (originally called Logical Awesome).



The main tasks of Git include:

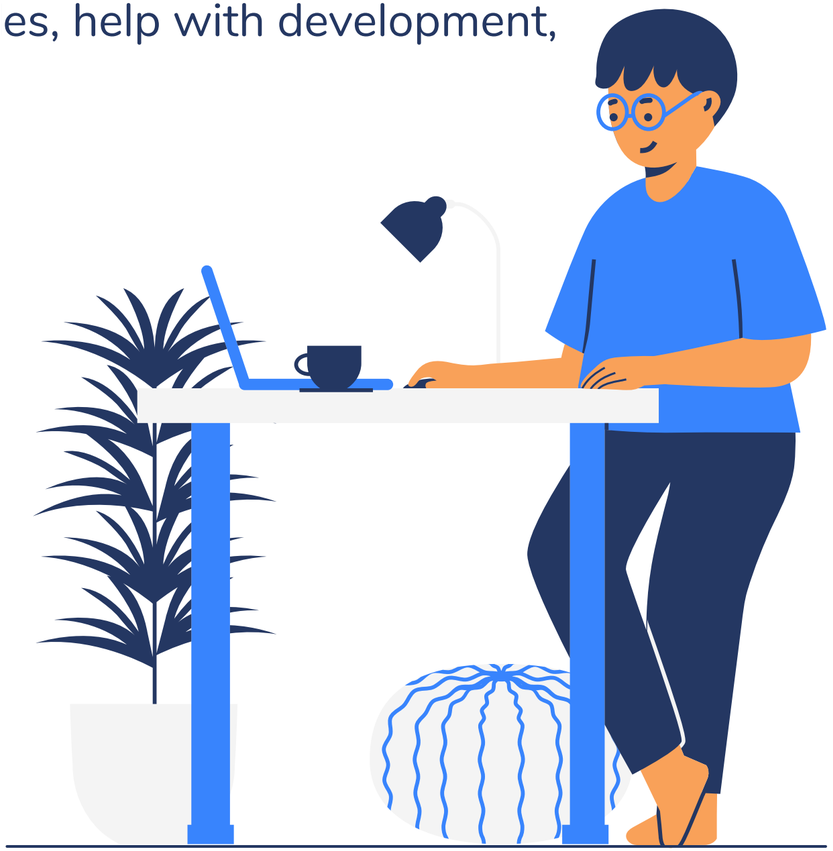
- saving the code and change history;
- saving information about users who change the code;
- the ability to roll back the code to any version;
- the ability to combine different versions, version changes;
- preparing the final code for release.



GitHub is one of the many services based on Git. To make it easier to understand, you can think of it as a social network for developers, where they review each other's codes, help with development, leave comments, etc.

GitHub allows you to:

- store code;
- use tools for collaboration;
- evaluate the work of other developers;
- create private and public repositories (private repositories for private repositories (private repositories are charged for use by three or more people).



What is a commit?

A commit is an instant snapshot of the state of your working tree at a certain point in time.

The commit pointed to by HEAD at the time of creating a new commit becomes its parent. This is how the concept of "revision history" is formed.

GitHub is also a tool for storing and managing Git repositories,
which allows you to:

- interact with repositories
- manage access rights;
- track errors;
- automate processes, and much more;
- integration with various CI systems is possible.

GitHub is a code hosting and a hangout for programmers

Github was invented in 2008 as a platform for developing projects: apps, websites, or chatbots. Since 2019, the site has been offering programmers to post code in open and closed access. Companies, teams, and freelancers can upload code as files to the cloud for free. What does this mean?

Code and project documentation in one place. No need to send archives with folders and ask clients to download code editors - just upload the project to GitHub and give access.
The folder where the programmer uploaded a specific project is the GitHub repository. A simple name is a repository.

If you share access to a folder, you can work together.
Collaboration helps to streamline the project. Sometimes developers write in different styles. And when the code is merged, the website or app doesn't work as expected.

GitHub solves the problem. First, developers write code in separate folders. These are called project branches. After the branch are merged into the main folder - the commit. If errors appear in the commit, you can find a specific branch and fix it.

How else is GitHub useful

Business card. In the profile settings, you can use the left side as a resume: write your name, information about yourself, and place of work. And add emojis and status to the photo. For example, "looking for a job" or "open to offers".

Private repositories. Sometimes you need to close access to a project but work in the Git system. For example, when the documentation contains confidential information about the client and their product. And the developers have signed a non-disclosure agreement (NDA).

Marketplace. In addition to freelancing, programmers can make money on applications inside GitHub. You need to create a useful programme, pass moderation, and publish it in the store.

Planning tools. GitHub has a built-in project system, like a notepad.
It works like Notion or another task planner.

Events. GitHub hosts events for developers. For example, conferences or competitions. People attend conferences to get news, trends, and interesting ideas. And at competitions, you can show all your experience and best practices, and attract potential customers.

Thank you for your attention!