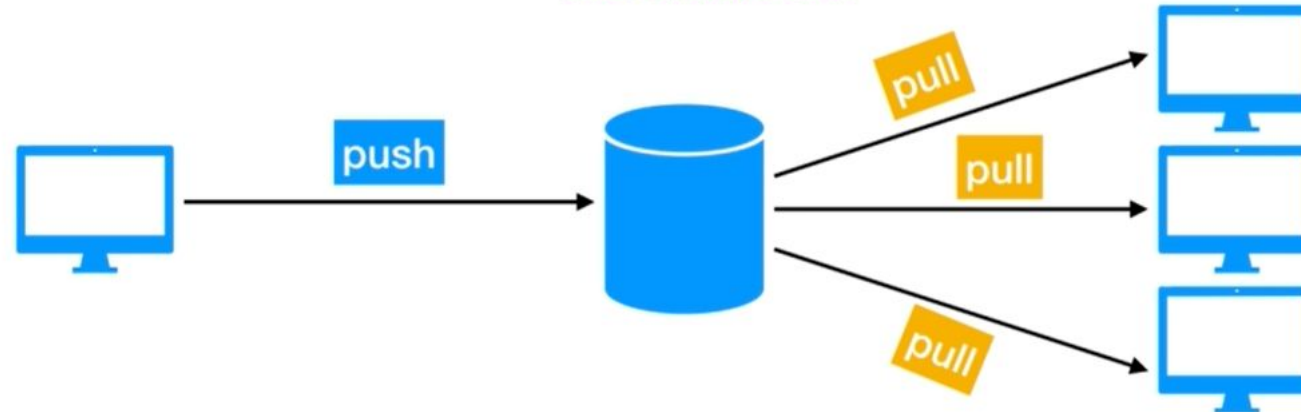# GIT

Работа с удаленным репозиторием.
Введение.

Работа с удаленным репозиторием

- До сих пор вся наша работа была сохранена только локально на нашем компьютере

- С помощью GIT можно отправить нашу работу на удаленный репозиторий - **для дополнительной сохранности** и для того, чтобы **другие люди могли видеть наши коммиты**

Удаленный репозиторий

- **GitHub**
- **BitBucket**
- **GitLab**

Предоставляет нам всю инфраструктуру для хранения и управления GIT - репозиториев

Практика - создание аккаунта на GitHub и создание удаленного репозитория

Features   Business   Explore   Marketplace   Pricing

Search GitHub   /   **Sign in** or **Sign up**

Built for developers

GitHub is a development platform inspired by the way you work. From **open source** to **business**, you can host and review code, manage projects, and build software alongside millions of other developers.

Username

Pick a username

Email

you@example.com

Password

Create a password

Use at least one letter, one numeral, and seven characters.

Sign up for GitHub

By clicking "Sign up for GitHub", you agree to our terms of service and privacy statement. We'll occasionally send you account related emails.

Join GitHub

The best way to design, build, and ship software.

👤 **Step 1:** Create personal account	▣ Step 2: Choose your plan	⚙ Step 3: Tailor your experience

Create your personal account

Username

|

This will be your username. You can add the name of your organization later.

Email address

We'll occasionally send updates about your account to this inbox. We'll never share your email address with anyone.

Password

Use at least one lowercase letter, one numeral, and seven characters.

By clicking "Create an account" below, you agree to our terms of service and privacy statement. We'll occasionally send you account related emails.

Create an account

You'll love GitHub

Unlimited collaborators

Unlimited public repositories

✓ Great communication

✓ Frictionless development

✓ Open source community

Choose your personal plan

- ● Unlimited public repositories for free.

- ○ **Unlimited private repositories** for $7/month. **(view in RUB)**

Don't worry, you can cancel or upgrade at any time.

☐ **Help me set up an organization next**
Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees.
Learn more about organizations

☐ **Send me updates on GitHub news, offers, and events**
Unsubscribe anytime in your email preferences. Learn more

Continue

Both plans include:

- ✓ Collaborative code review
- ✓ Issue tracking
- ✓ Open source community
- ✓ Unlimited public repositories
- ✓ Join any organization

Search or jump to...

Pull requests   Issues   Marketplace   Explore

New repository
Import repository
New gist
New organization

Learn Git and GitHub without any code!

Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

Read the guide   **Start a project**

Our new Terms of Service and Privacy Statement are in effect.

Repositories   **New repository**

You don't have any repositories yet!

Browse activity   Discover repositories

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you watch and people you follow.

Explore GitHub

Search or jump to...

Pull requests   Issues   Marketplace   Explore

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner   **Repository name**

⚹ AlishevGitCourse ▾   /   FirstRepository   ✓

Great repository names are short and memorable. Need inspiration? How about **symmetrical-guacamole**.

Description (optional)

|

⦿ 📖 **Public**
    Anyone can see this repository. You choose who can commit.

○ 🔒 **Private**
    You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**
    This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾ | Add a license: **None** ▾   ⓘ

**Create repository**

git remote

Команда для настройки и просмотра удаленных репозиториев

- **git remote -v** - просмотр списка существующих удаленных репозиториев

- **git remote add НАЗВАНИЕ_РЕПОЗИТОРИЯ АДРЕС_РЕПОЗИТОРИЯ** - добавить новый удаленный репозиторий, который находится по **указанному** адресу. При этом, на нашем компьютере к удаленному репозиторию мы будем обращаться по его **названию**

- **git remote remove НАЗВАНИЕ_РЕПОЗИТОРИЯ** - удалить репозиторий с указанным **названием**

Добавление удаленного репозитория

Пример:

git remote add origin https://github.com/NeilAlishev/Some-Name.git

origin

push

pull

GitHub
https://github.com/NeilAlishev/Some-Name.git
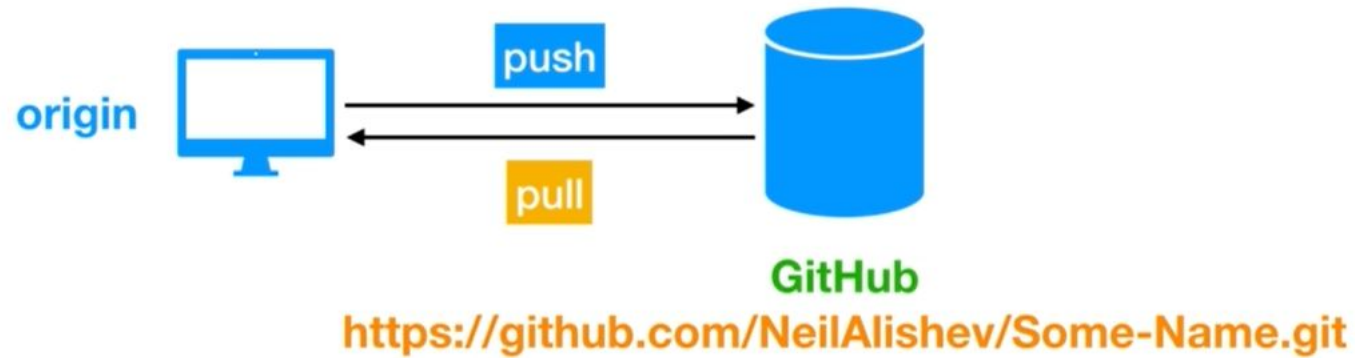
На нашем компьютере хранится только ссылка на удаленный репозиторий
origin - название этой ссылки

git push

Команда для отправки локального репозитория на удаленный

git push НАЗВАНИЕ_УДАЛЕННОГО_РЕПОЗИТОРИЯ ВЕТКА

Пример:

git push origin master

GitHub потребует от нас
ввода пароля от нашего
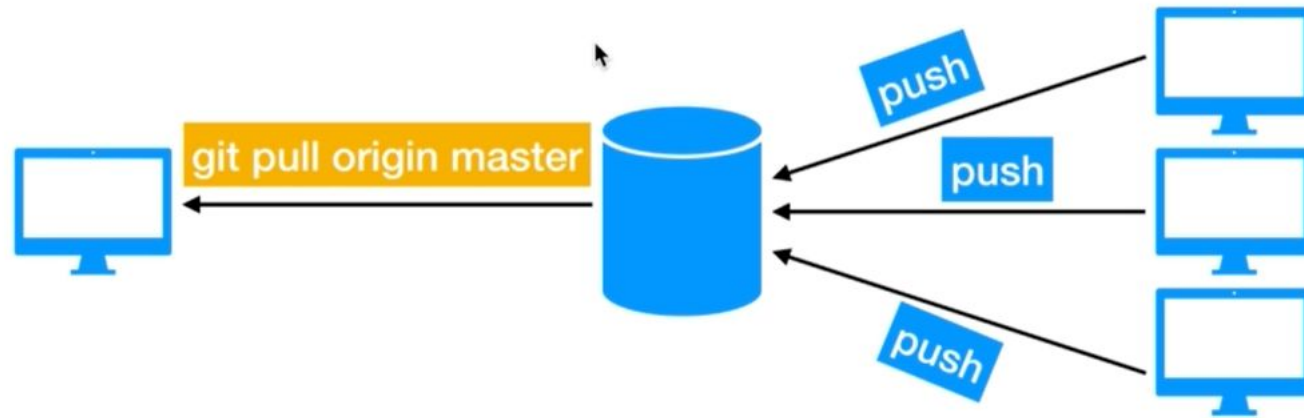аккаунта. О настройке SSH
поговорим позже.

**Отправляем на удаленный
репозиторий с именем origin
нашу ветку master**

Все! Наша ветка master теперь скопирована на удаленный репозиторий

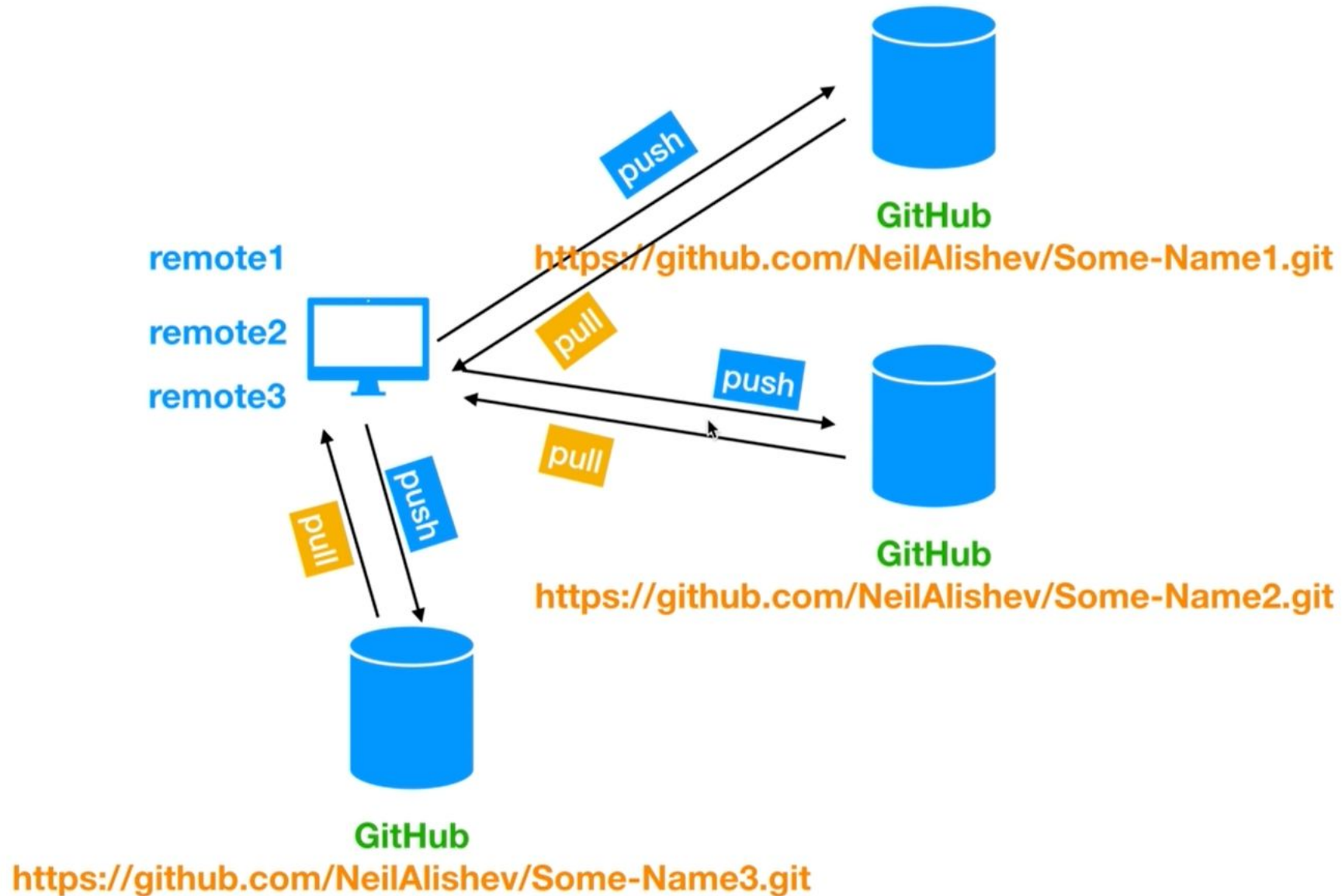# git pull

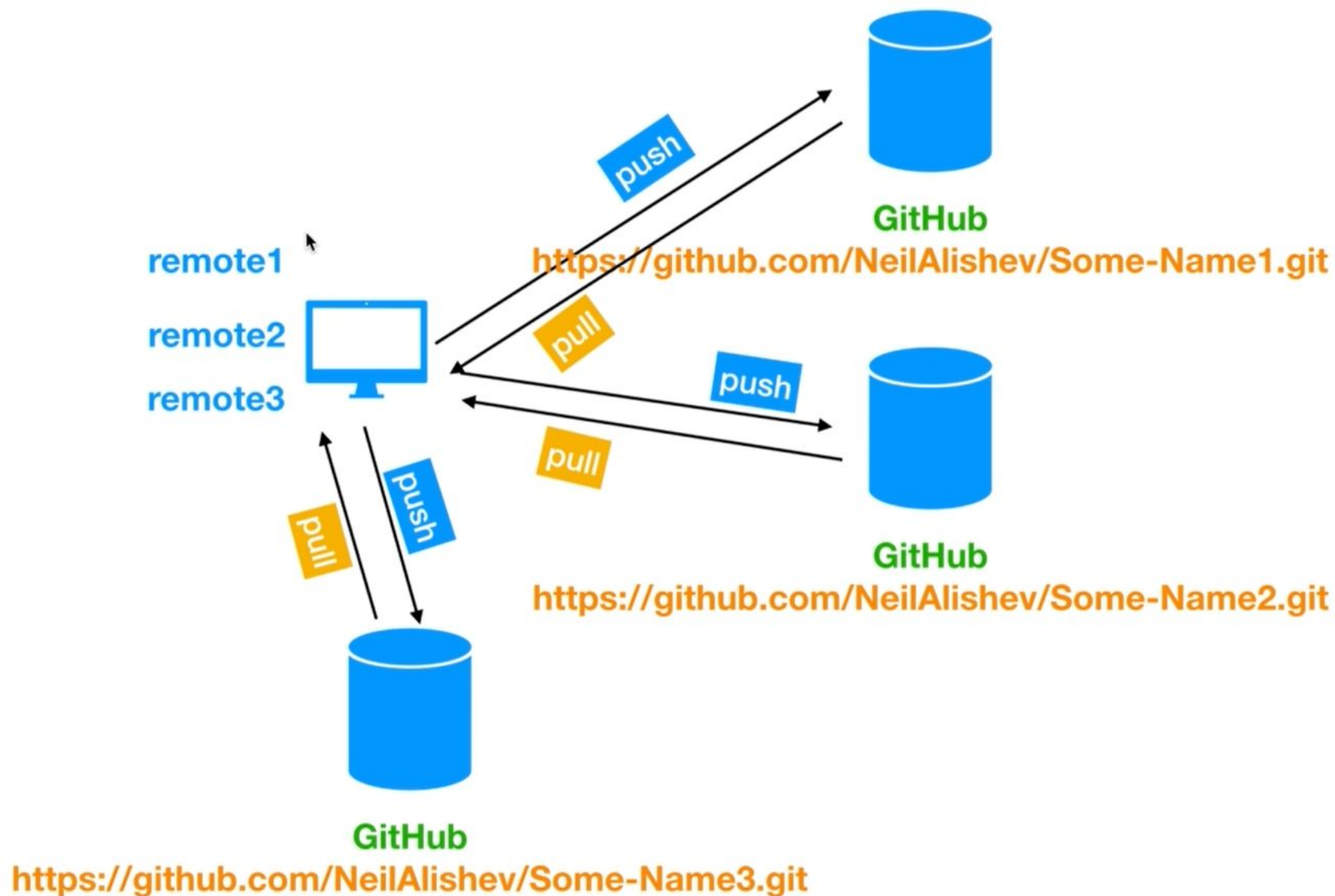**Команда для получения обновлений с удаленного репозитория**

Все! Теперь наш локальный репозиторий синхронизирован с удаленным

Несколько удаленных репозиториев

remote1

remote2

remote3

push

pull

push

pull

pull

push

GitHub
https://github.com/NeilAlishev/Some-Name1.git

GitHub
https://github.com/NeilAlishev/Some-Name2.git

GitHub
https://github.com/NeilAlishev/Some-Name3.git

Несколько удаленных репозиториев

remote1

remote2

remote3

push

pull

push

pull

push

pull

GitHub
https://github.com/NeilAlishev/Some-Name1.git

GitHub
https://github.com/NeilAlishev/Some-Name2.git
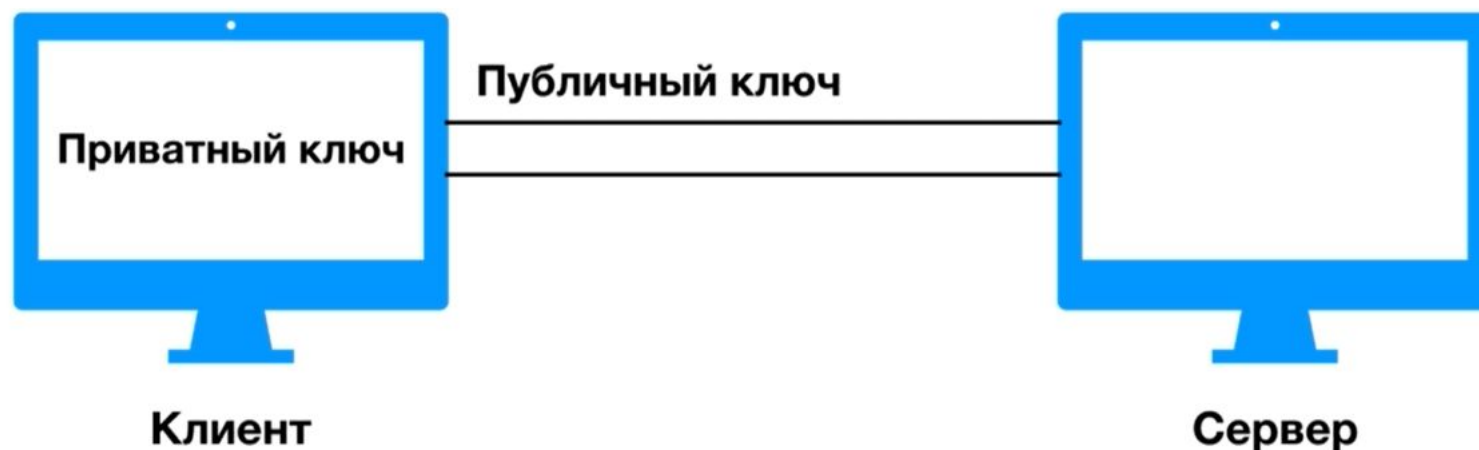
GitHub
https://github.com/NeilAlishev/Some-Name3.git

SSH

Настройка

Что такое SSH?

- От английского - Secure SHell - "безопасная оболочка"

- SSH - сетевой протокол, позволяющий производить удалённое управление операционной системой

- SSH позволяет безопасно передавать данные в незащищённой среде

1   Open Git Bash.

2   Enter `ls -al ~/.ssh` to see if existing SSH keys are present:

```
$ ls -al ~/.ssh
# Lists the files in your .ssh directory, if they exist
```

3   Check the directory listing to see if you already have a public SSH key. By default, the filenames of the public keys are one of the following:

   - *id_rsa.pub*
   - *id_ecdsa.pub*
   - *id_ed25519.pub*

Generating a new SSH key

1. Open Git Bash.

2. Paste the text below, substituting in your GitHub email address.

```
$ ssh-keygen -t rsa -b 4096 -C "your_email@example.com"
```

This creates a new ssh key, using the provided email as a label.

```
> Generating public/private rsa key pair.
```

3. When you're prompted to "Enter a file in which to save the key," press Enter. This accepts the default file location.

```
> Enter a file in which to save the key (/c/Users/you/.ssh/id_rsa):[Press enter]
```

4. At the prompt, type a secure passphrase. For more information, see "Working with SSH key passphrases".

```
> Enter passphrase (empty for no passphrase): [Type a passphrase]
> Enter same passphrase again: [Type passphrase again]
```

Adding your SSH key to the ssh-agent

Before adding a new SSH key to the ssh-agent to manage your keys, you should have checked for existing SSH keys and generated a new SSH key.

If you have GitHub Desktop installed, you can use it to clone repositories and not deal with SSH keys. It also comes with the Git Bash tool, which is the preferred way of running `git` commands on Windows.

1   Ensure the ssh-agent is running:

- If you are using the Git Shell that's installed with GitHub Desktop, the ssh-agent should be running.

- If you are using another terminal prompt, such as Git for Windows, you can use the "Auto-launching the ssh-agent" instructions in "Working with SSH key passphrases", or start it manually:

```
# start the ssh-agent in the background
$ eval $(ssh-agent -s)
> Agent pid 59566
```

2   Add your SSH private key to the ssh-agent. If you created your key with a different name, or if you are adding an existing key that has a different name, replace id_rsa in the command with the name of your private key file.

```
$ ssh-add ~/.ssh/id_rsa
```

3   Add the SSH key to your GitHub account.

Adding a new SSH key to your GitHub account

To configure your GitHub account to use your new (or existing) SSH key, you'll also need to add it to your GitHub account.

Mac   Windows   Linux

Before adding a new SSH key to your GitHub account, you should have:

- Checked for existing SSH keys
- Generated a new SSH key and added it to the ssh-agent

After adding a new SSH key to your GitHub account, you can reconfigure any local repositories to use SSH. For more information, see "Switching remote URLs from HTTPS to SSH."

> **Note:** DSA keys (SSH-DSS) are no longer supported. Existing keys will continue to function, but you cannot add new DSA keys to your GitHub account.

1 Copy the SSH key to your clipboard.

   If your SSH key file has a different name than the example code, modify the filename to match your current setup. When copying your key, don't add any newlines or whitespace.

   ```
   $ clip < ~/.ssh/id_rsa.pub
   # Copies the contents of the id_rsa.pub file to your clipboard
   ```
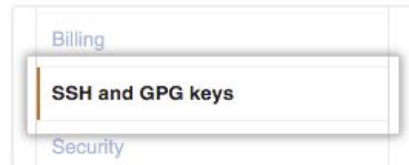
   > **Tip:** If `clip` isn't working, you can locate the hidden `.ssh` folder, open the file in your favorite text editor, and copy it to your clipboard.

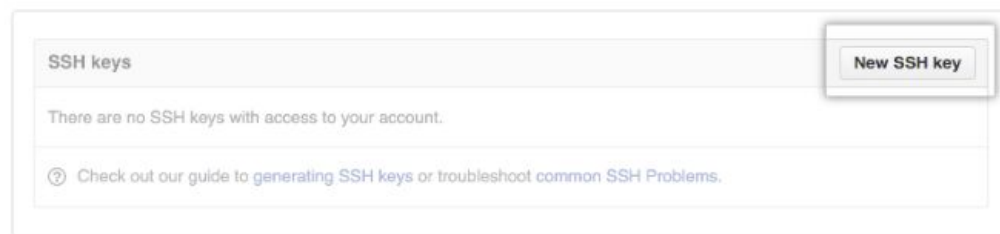2 In the upper-right corner of any page, click your profile photo, then click **Settings**.

2   In the upper-right corner of any page, click your profile photo, then click **Settings**.
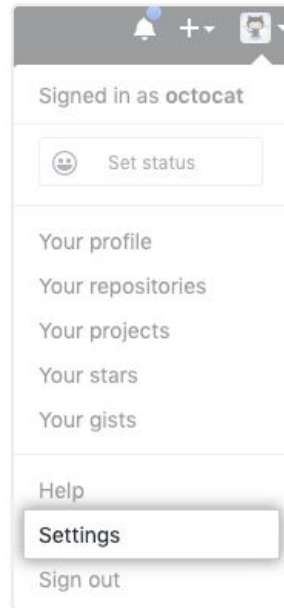
3   In the user settings sidebar, click **SSH and GPG keys**.

4   Click **New SSH key** or **Add SSH key**.

5   In the "Title" field, add a descriptive label for the new key. For example, if you're using a personal Mac, you might call this key "Personal MacBook Air".

6   Paste your key into the "Key" field.

SSH keys   New SSH key

There are no SSH keys with access to your account.

Title

Key

Begins with 'ssh-rsa', 'ssh-dss', 'ssh-ed25519', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', or 'ecdsa-sha2-nistp521'

Add SSH key

⑦ Check out our guide to generating SSH keys or troubleshoot common SSH Problems.

7   Click **Add SSH key**.

Add SSH key

8   If prompted, confirm your GitHub password.

Confirm password to continue

Password   Forgot password?

Confirm password