

Министерство цифрового развития, связи и массовых коммуникаций  
Российской Федерации

Ордена Трудового Красного Знамени

федеральное государственное бюджетное образовательное учреждение  
высшего образования

МОСКОВСКИЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ СВЯЗИ И  
ИНФОРМАТИКИ

Кафедра «Математической кибернетики и информационных технологий»

Основы DevOps

Лабораторная работа №2

Выполнил: Ибрахим Баро Йиди

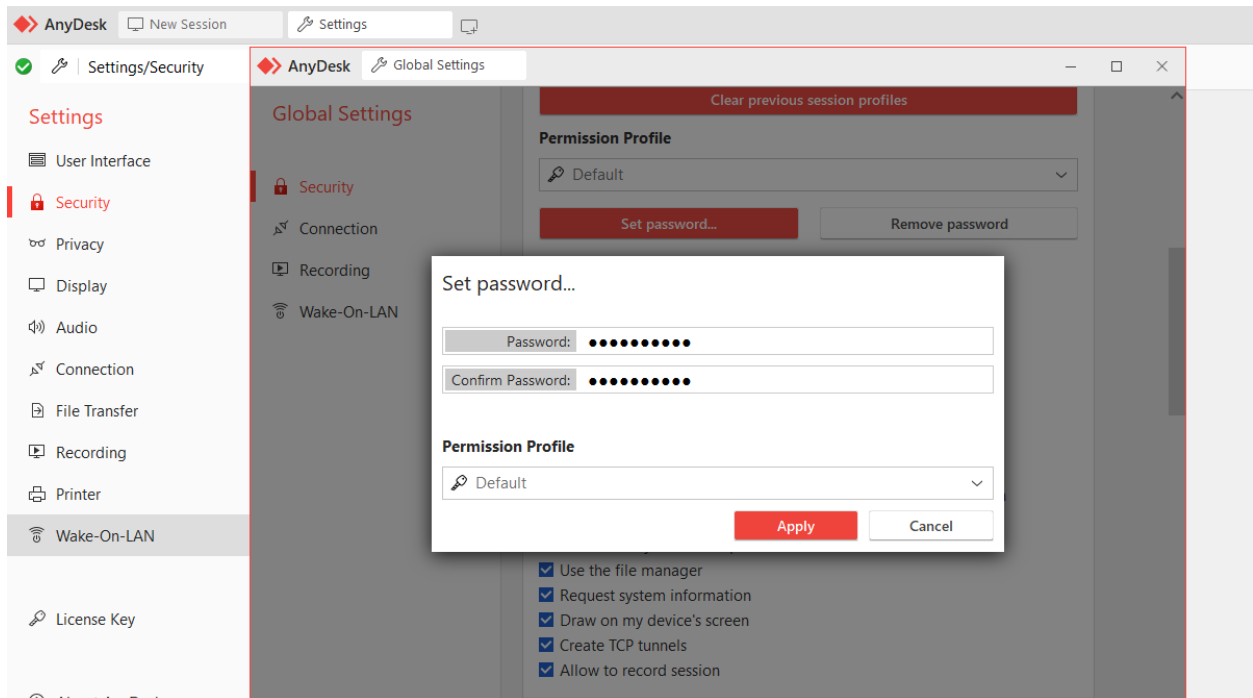
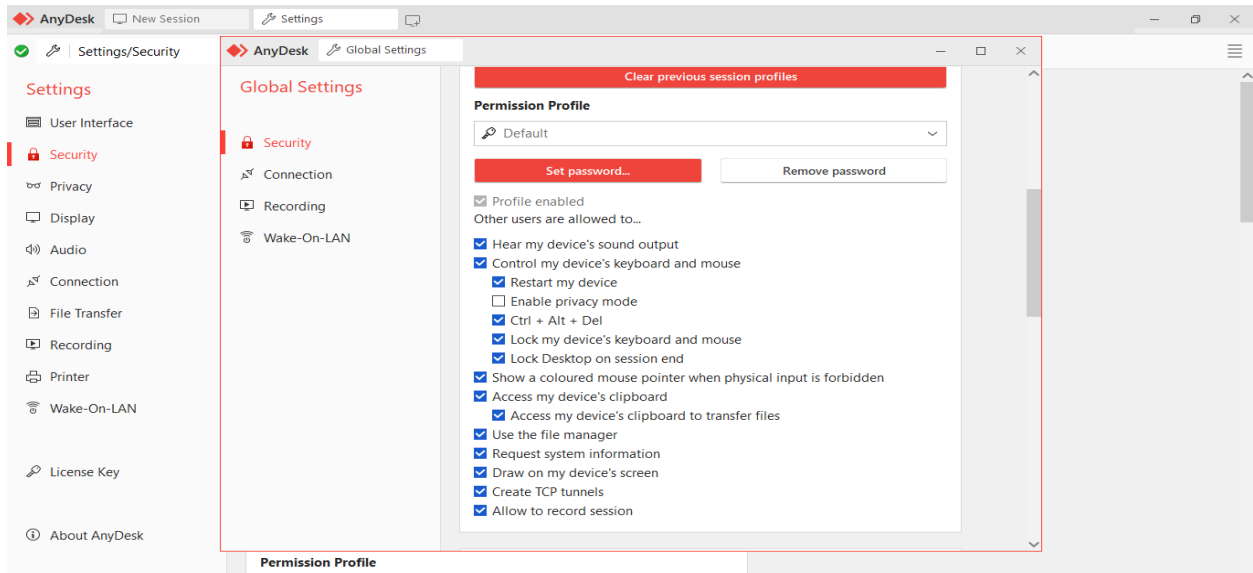
студент группы БВТ2101

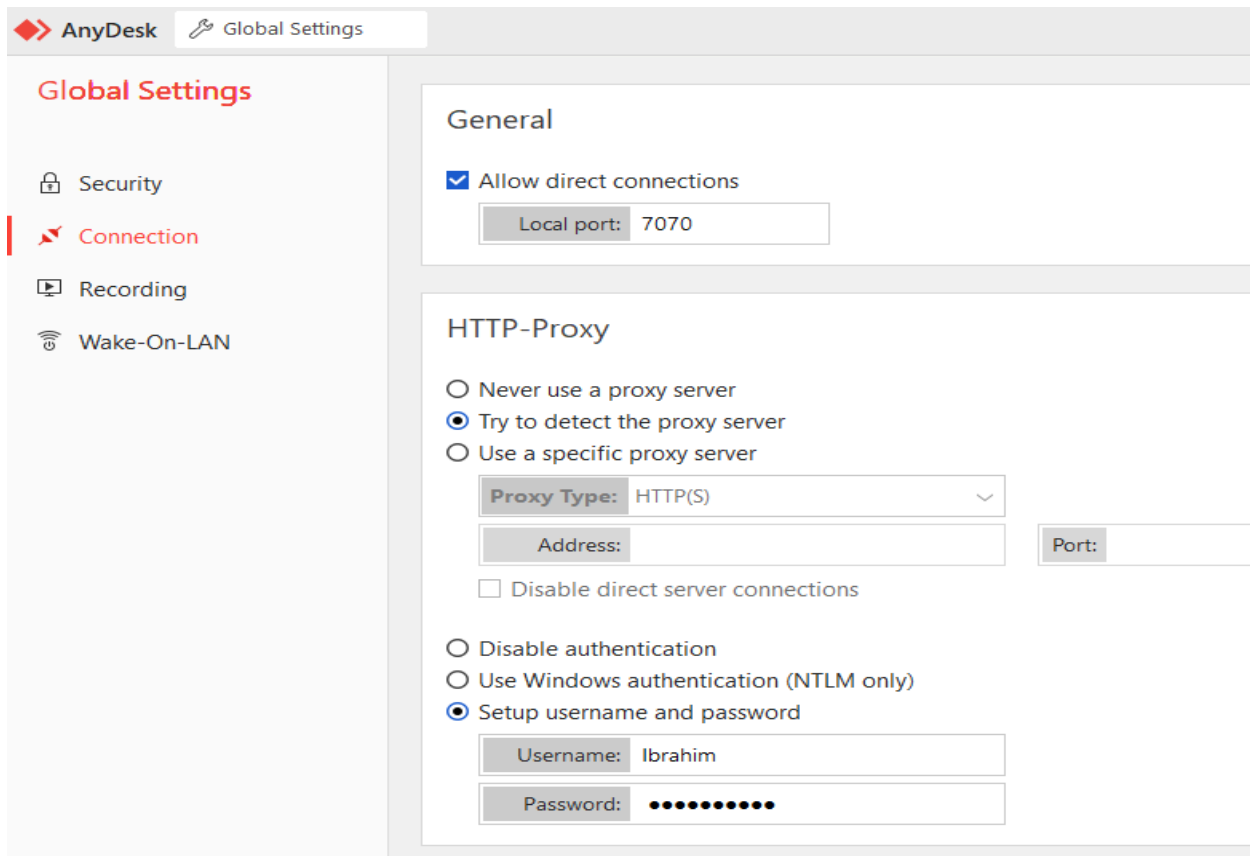
Иванов И.И.

# Выполнение

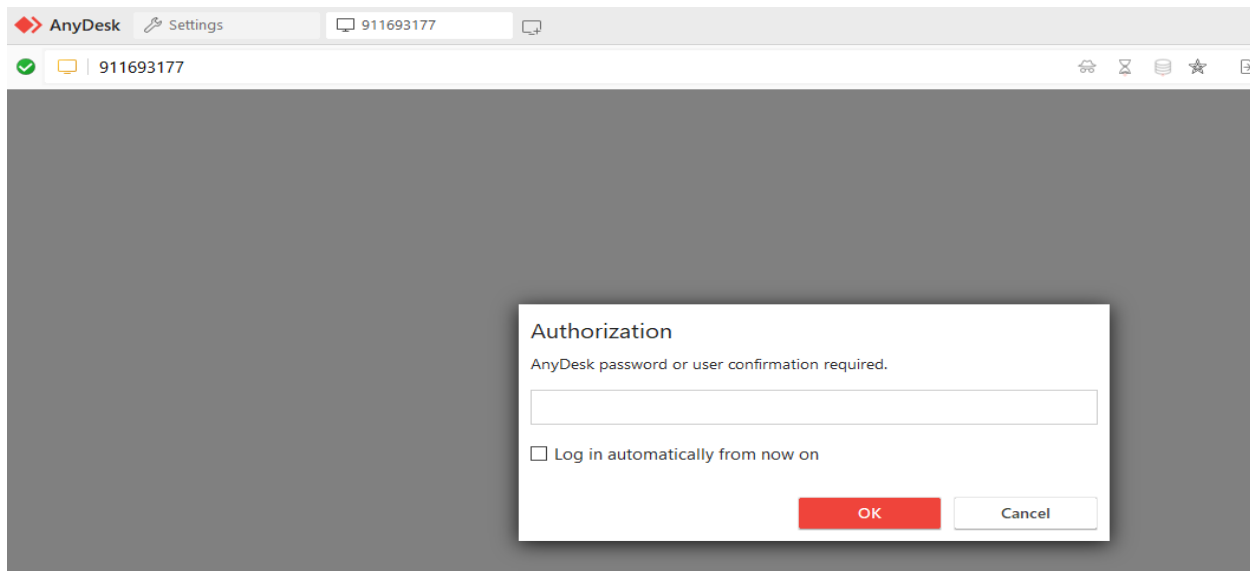
## 1. Настройка Anydesk в моем компьютере

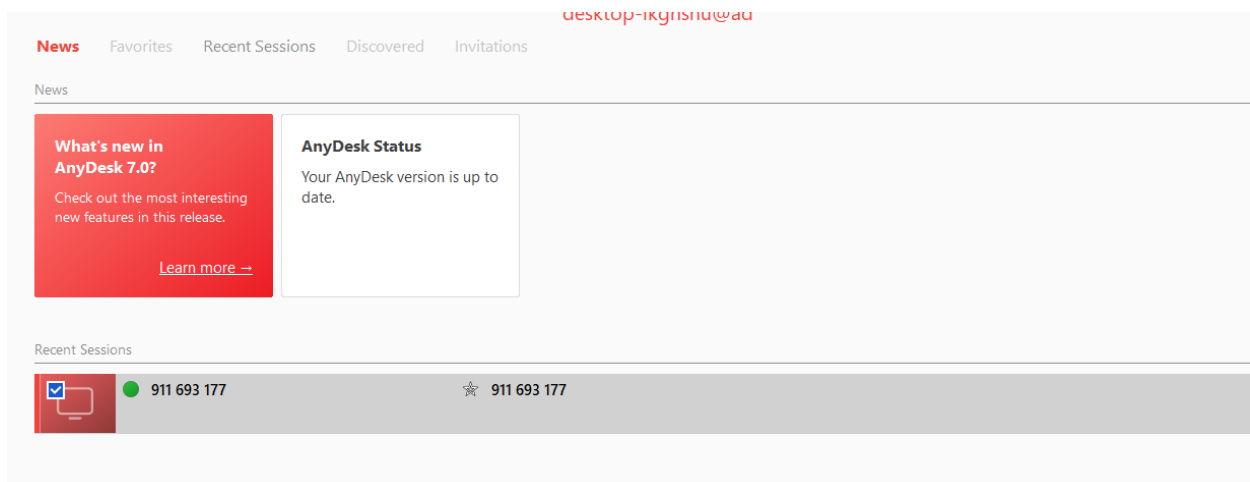
Далее: настройка tcp-туннеля, имени пользователя и пароля





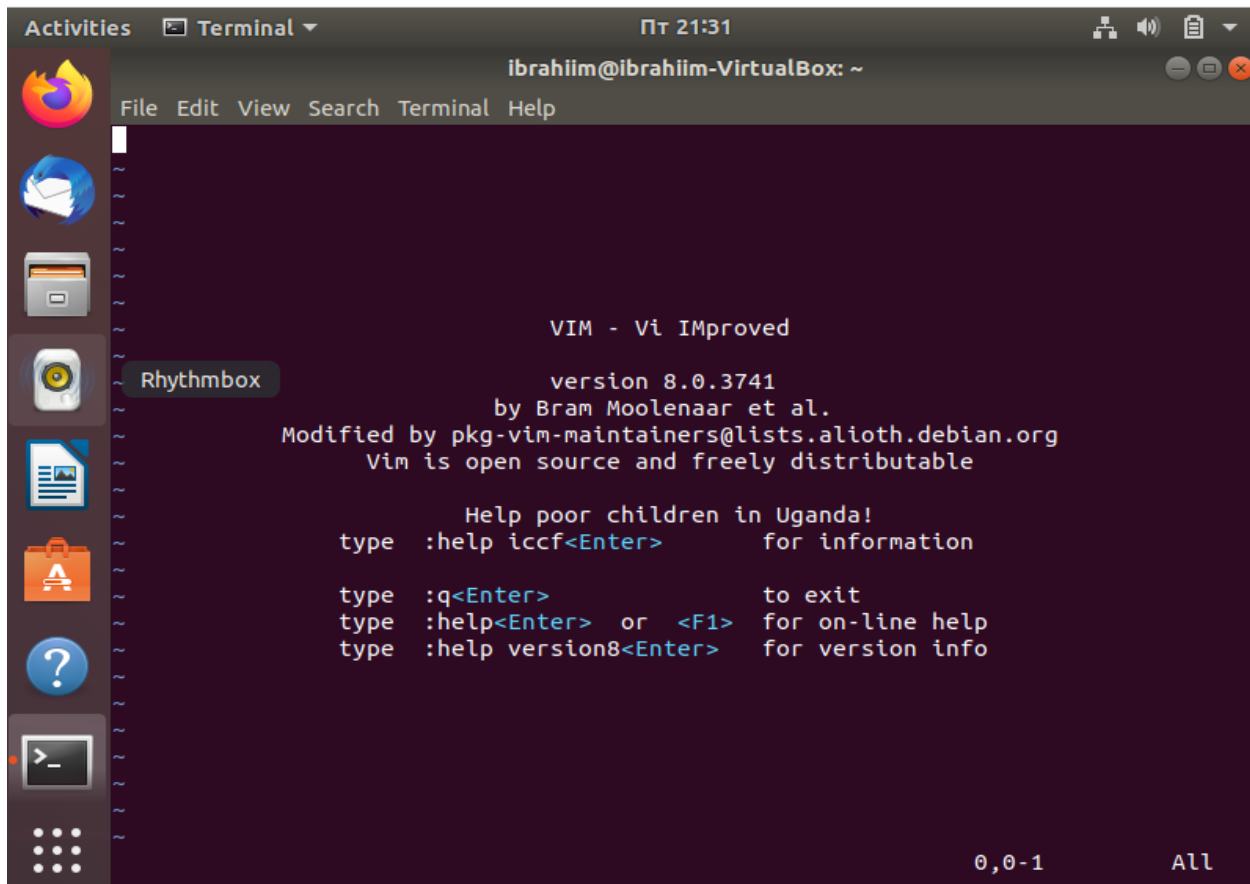
**И, наконец, подключитесь к этому компьютеру 911693177**



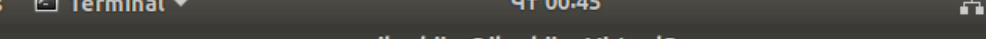


## 2. Настройка предустановленных доменных имен

Прежде всего, установите редактор Vim



**Далее:**



The screenshot shows a terminal window with a dark background. The title bar at the top reads "Activities Terminal" and "4T 00:45". The prompt is "ibrahiim@ibrahiim-VirtualBox: ~". The menu bar includes "File", "Edit", "View", "Search", "Terminal", and "Help". The command "sudo vi /etc/hosts" is entered at the prompt.

```
ibrahiim@ibrahiim-VirtualBox: ~  
File Edit View Search Terminal Help  
ibrahiim@ibrahiim-VirtualBox:~$ sudo vi /etc/hosts
```

[illegible]

```
ibrahim@ibrahim-VirtualBox: ~
File Edit View Search Terminal Help

E325: ATTENTION
Found a swap file by the name "/etc/.hosts.swp"
      owned by: root   dated: Thu Apr 14 00:46:01 2022
      file name: /etc/hosts
      modified: no
      user name: root   host name: ibrahim-VirtualBox
      process ID: 17855
While opening file "/etc/hosts"
      dated: Mon Apr 11 12:01:15 2022

(1) Another program may be editing the same file.  If this is the case,
    be careful not to end up with two different instances of the same
    file when making changes.  Quit, or continue with caution.
(2) An edit session for this file crashed.
    If this is the case, use ":recover" or "vim -r /etc/hosts"
    to recover the changes (see ":help recovery").
    If you did this already, delete the swap file "/etc/.hosts.swp"
    to avoid this message.

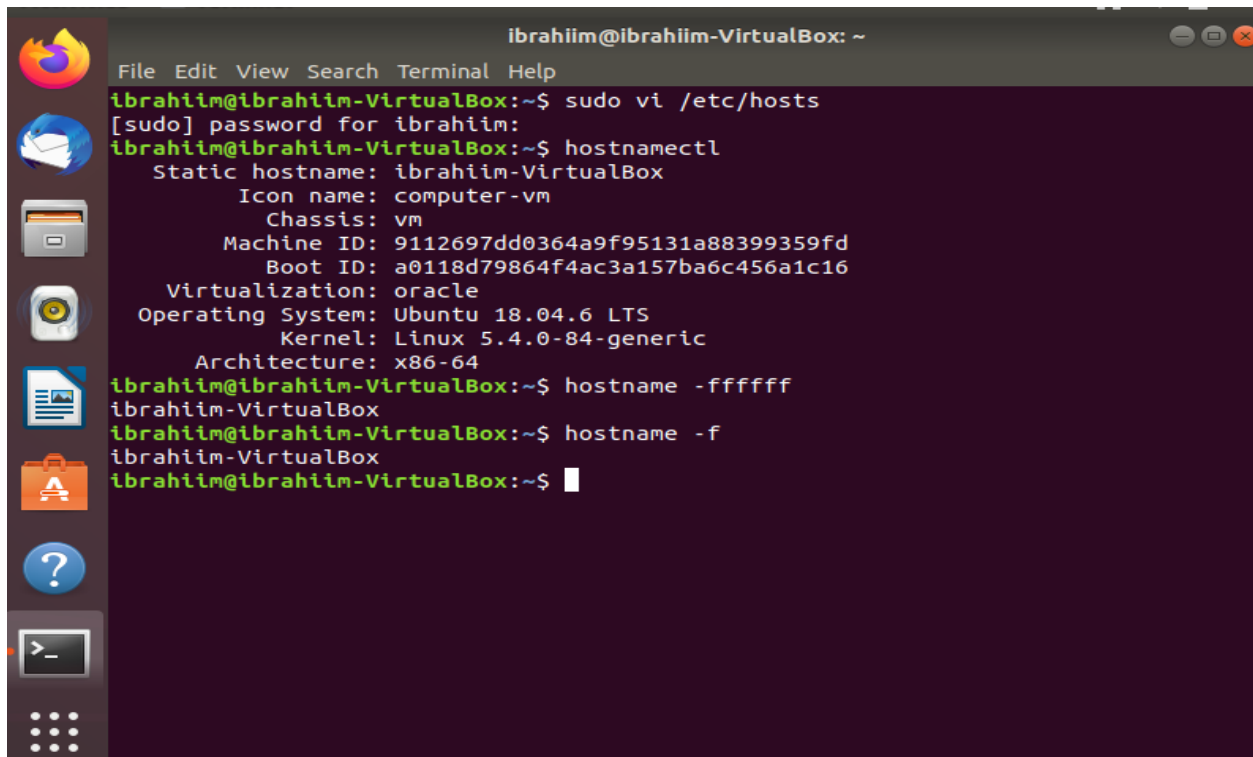
Swap file "/etc/.hosts.swp" already exists!
[O]pen Read-Only, (E)dit anyway, (R)ecover, (D)elele it, (Q)uit, (A)bort:
```

```
ibrahim@ibrahim-VirtualBox: ~
File Edit View Search Terminal Help

127.0.0.1    localhost
127.0.1.1    server1.ibrahim-VirtualBox.local server1
# hostname is server1 and domain name is ibrahim-virtualBox.local
# fully quallified domain name is server1.ibrahim-virtualBox
#
#Add dns client entery here
127.0.0.1    devops.ru
127.0.0.1    gitlab.devops.ru
127.0.0.1    jenkins.devops.ru
# Added by Docker Desktop
# To allow the same kube context to work on the host and the container:
127.0.0.1    kubernetes.docker.internal
# End of section

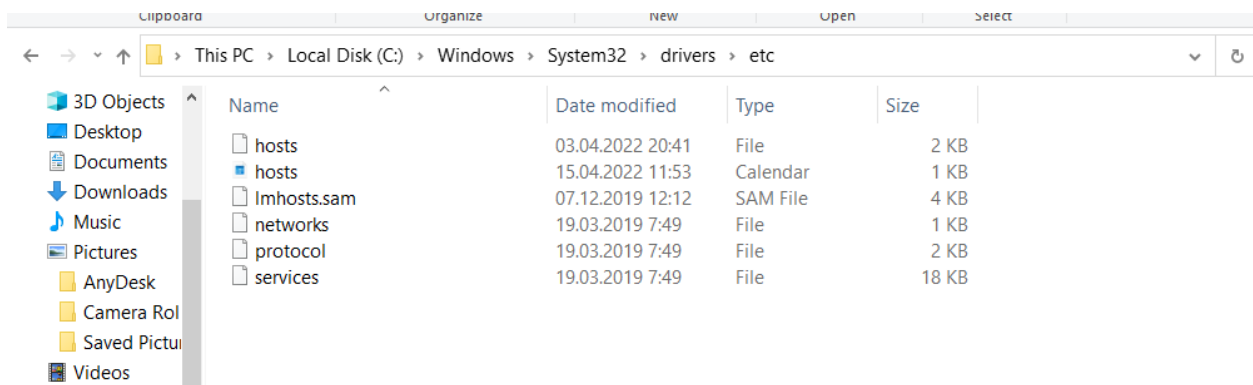
# The following lines are desirable for IPv6 capable hosts
::1         ip6-localhost ip6-loopback
fe00::0     ip6-localnet
ff00::0     ip6-mcastprefix
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters

~
~
~
~
1 change; before #13  12:54:32                                21,22                                All
```



```
ibrahilm@ibrahilm-VirtualBox: ~  
File Edit View Search Terminal Help  
ibrahilm@ibrahilm-VirtualBox:~$ sudo vi /etc/hosts  
[sudo] password for ibrahilm:  
ibrahilm@ibrahilm-VirtualBox:~$ hostnamectl  
Static hostname: ibrahilm-VirtualBox  
Icon name: computer-vm  
Chassis: vm  
Machine ID: 9112697dd0364a9f95131a88399359fd  
Boot ID: a0118d79864f4ac3a157ba6c456a1c16  
Virtualization: oracle  
Operating System: Ubuntu 18.04.6 LTS  
Kernel: Linux 5.4.0-84-generic  
Architecture: x86-64  
ibrahilm@ibrahilm-VirtualBox:~$ hostname -ffffff  
ibrahilm-VirtualBox  
ibrahilm@ibrahilm-VirtualBox:~$ hostname -f  
ibrahilm-VirtualBox  
ibrahilm@ibrahilm-VirtualBox:~$
```

Переходим по пути “C:\Windows\System32\drivers\etc”



Открываем в блокноте файл hosts в режиме администратора и добавляем запись по аналогии с Linux.

hosts - Notepad

```
File Edit Format View Help
# Copyright (c) 1993-2009 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97       rhino.acme.com
#       38.25.63.10       x.acme.com
#
# localhost name resolution is handled within DNS itself.
#       127.0.0.1         localhost
#       127.0.0.1         server1.librahim-virtualBox.local server1
127.0.0.1                 devops.ru
127.0.0.1                 gitlab.devops.ru
127.0.0.1                 jenkins.devops.ru
```

### 3. Регистрация в удаленном GitLab.



## GitLab.com

GitLab.com offers free unlimited (private) repositories and unlimited collaborators.

- [Explore projects on GitLab.com](#) (no login needed)
- [More information about GitLab.com](#)
- [GitLab Community Forum](#)
- [GitLab Homepage](#)

By signing up for and by signing in to this service you accept our:

- [Privacy policy](#)
- [Cookie Policy](#)
- [GitLab.com Terms](#)

Username or email

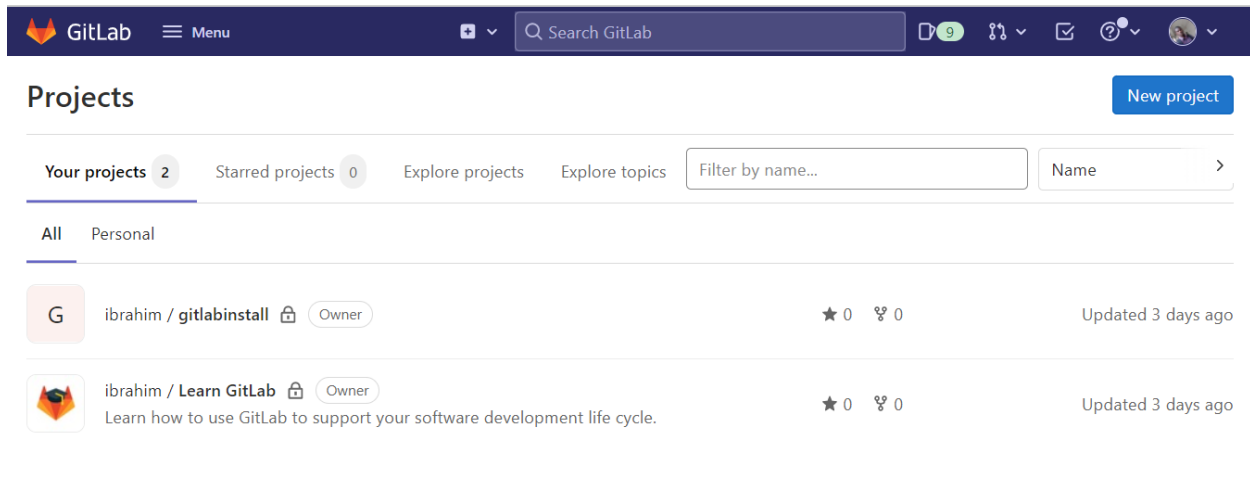
Password

☐ Remember me [Forgot your password?](#)

Sign in

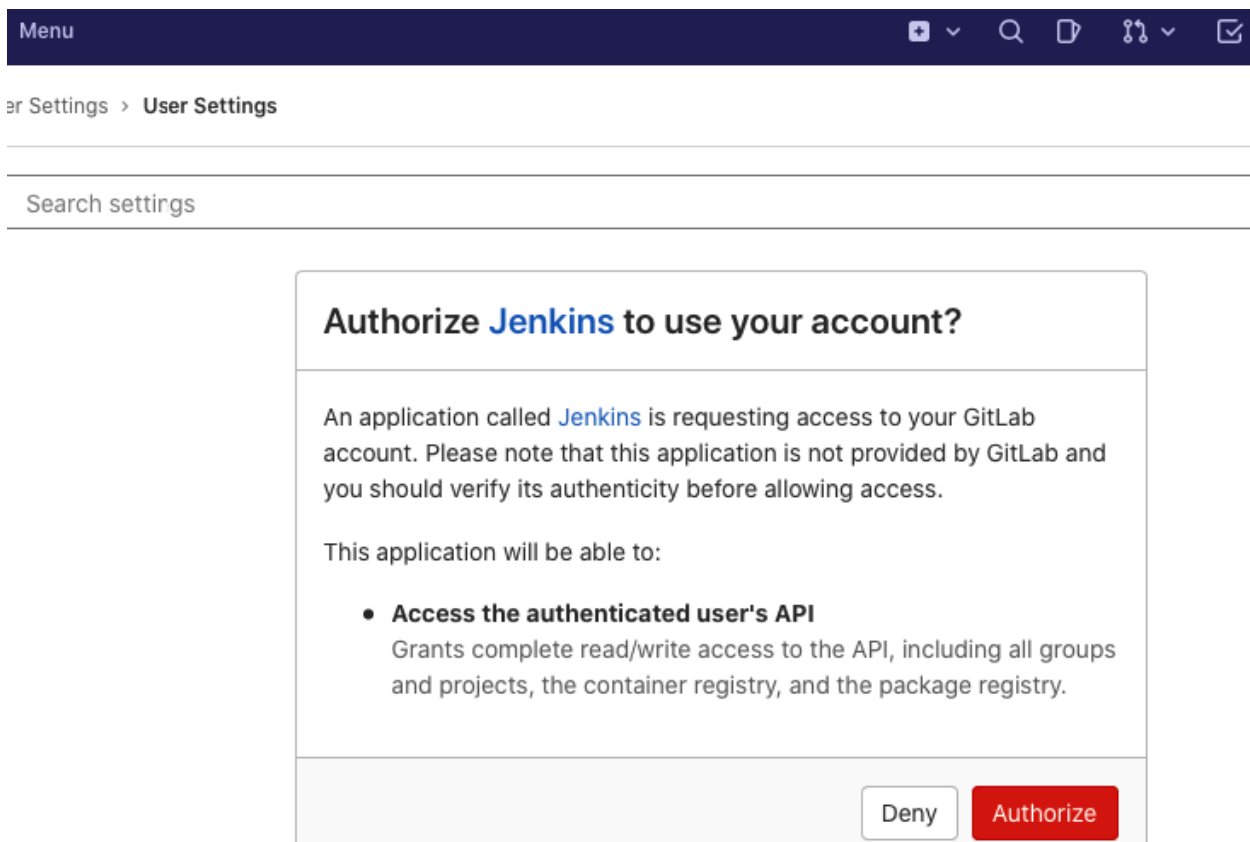
Don't have an account yet? [Register now](#)





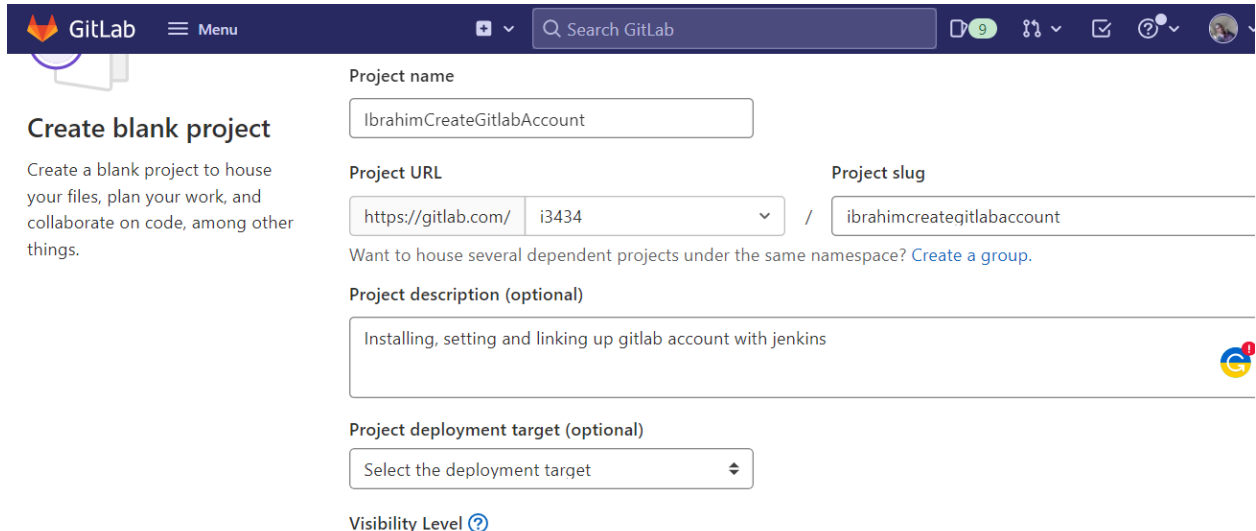
## 4. Jenkins

## привязка моей учетной записи GitLab к Jenkins



## Задание

Необходимо будет создать простой REST сервис (без GUI) и написать к нему тесты (желательно воспользоваться встроенным в фреймворк инструментами, либо `pytest` + `requests`, что не очень правильно).



**Create blank project**

Create a blank project to house your files, plan your work, and collaborate on code, among other things.

**Project name**  
IbrahimCreateGitlabAccount

**Project URL**  
https://gitlab.com/ i3434

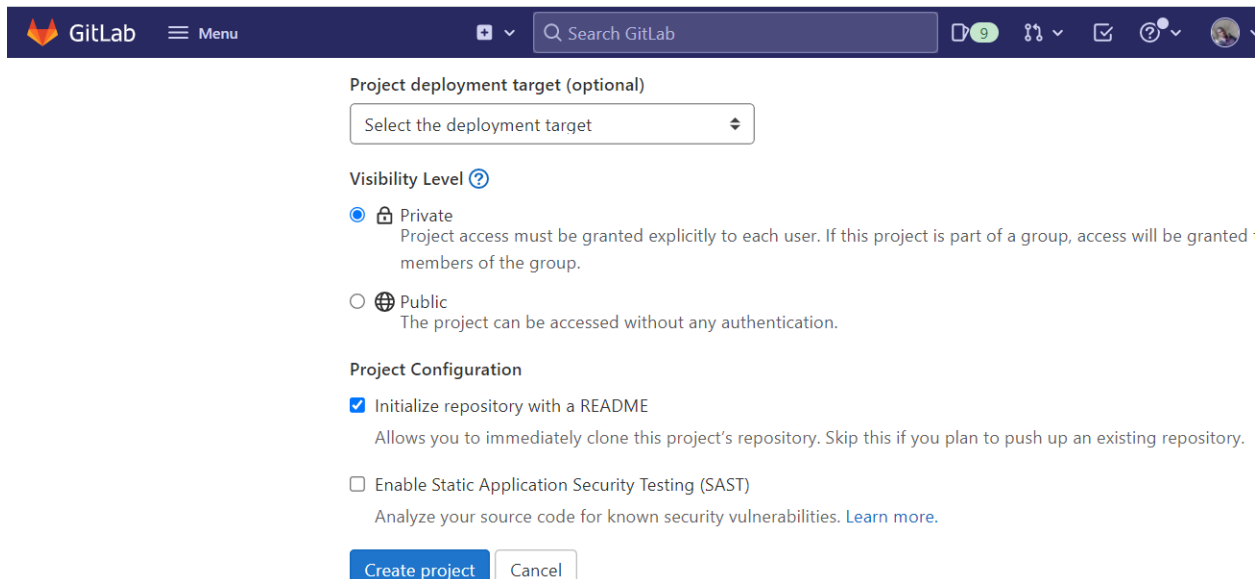
**Project slug**  
ibrahimcreategitlabaccount

Want to house several dependent projects under the same namespace? [Create a group](#).

**Project description (optional)**  
Installing, setting and linking up gitlab account with jenkins

**Project deployment target (optional)**  
Select the deployment target

**Visibility Level** ⓘ



**Project deployment target (optional)**  
Select the deployment target

**Visibility Level** ⓘ

☒ **Private**  
Project access must be granted explicitly to each user. If this project is part of a group, access will be granted to members of the group.

☐ **Public**  
The project can be accessed without any authentication.

**Project Configuration**

☒ **Initialize repository with a README**  
Allows you to immediately clone this project's repository. Skip this if you plan to push up an existing repository.

☐ **Enable Static Application Security Testing (SAST)**  
Analyze your source code for known security vulnerabilities. [Learn more](#).

**Create project** Cancel



## ПОДГОТОВКИ КОДА

```
ibrahim@ibrahim-VirtualBox:~$ git clone https://gitlab.com/i3434/ibrahimcreat
egitlabaccount.git
Cloning into 'ibrahimcreategitlabaccount'...
Username for 'https://gitlab.com': baroisyidi@gmail.com
Password for 'https://baroisyidi@gmail.com@gitlab.com':
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
ibrahim@ibrahim-VirtualBox:~$ cd ibrahimcreategitlabaccount/
```

```
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ sudo apt install pyt
hon-pip
[sudo] password for ibrahim:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  build-essential dpkg-dev fakeroot g++ g++-7 gcc gcc-7
  libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl
  libasan4 libatomic1 libc-dev-bin libc6 libc6-dbg libc6-dev libcilkrts5
  libexpat1 libexpat1-dev libfakeroot libgcc-7-dev libitm1 liblsan0 libmpx2
  libpython-all-dev libpython-dev libpython-stdlib libpython2.7
  libpython2.7-dev libpython2.7-minimal libpython2.7-stdlib libquadmath0
  libstdc++-7-dev libtsan0 libubsan0 linux-libc-dev make manpages-dev python
  python-all python-all-dev python-asn1crypto python-cffi-backend
  python-crypto python-cryptography python-dbus python-dev python-enum34
  python-gi python-idna python-ipaddress python-keyring python-keyrings.alt
  python-minimal python-pip-whl python-pkg-resources python-secretstorage
  python-setuptools python-six python-wheel python-xdg python2.7
  python2.7-dev python2.7-minimal
Suggested packages:
  debian-keyring g++-multilib g++-7-multilib gcc-7-doc libstdc++6-7-dbg
  gcc-multilib autoconf automake libtool flex bison gcc-doc gcc-7-multilib
  gcc-7-locales libgcc1-dbg libgomp1-dbg libitm1-dbg libatomic1-dbg
  libasan4-dbg liblsan0-dbg libtsan0-dbg libubsan0-dbg libcilkrts5-dbg
```

```
ibrahim@ibrahim-VirtualBox: ~/ibrahimcreategitlabaccount
File Edit View Search Terminal Help
python-setuptools python-six python-wheel python-xdg python2.7
python2.7-dev python2.7-minimal
Suggested packages:
  debian-keyring g++-multilib g++-7-multilib gcc-7-doc libstdc++6-7-dbg
  gcc-multilib autoconf automake libtool flex bison gcc-doc gcc-7-multilib
  gcc-7-locales libgcc1-dbg libgomp1-dbg libitm1-dbg libatomic1-dbg
  libasan4-dbg liblsan0-dbg libtsan0-dbg libubsan0-dbg libcilkrts5-dbg
  libmpx2-dbg libquadmath0-dbg glibc-doc libstdc++-7-doc make-doc python-doc
  python-tk python-crypto-doc python-cryptography-doc
  python-cryptography-vectors python-dbus-dbg python-dbus-doc
  python-enum34-doc python-gi-cairo libkf5wallet-bin gir1.2-gnomekeyring-1.0
  python-fs python-gdata python-keyczar python-secretstorage-doc
  python-setuptools-doc python2.7-doc binfmt-support
The following NEW packages will be installed:
  build-essential dpkg-dev fakeroot g++ g++-7 gcc gcc-7
  libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl
  libasan4 libatomic1 libc-dev-bin libc6-dev libcilkrts5 libexpat1-dev
  libfakeroot libgcc-7-dev libitm1 liblsan0 libmpx2 libpython-all-dev
  libpython-dev libpython-stdlib libpython2.7-dev libquadmath0
  libstdc++-7-dev libtsan0 libubsan0 linux-libc-dev make manpages-dev python
  python-all python-all-dev python-asn1crypto python-cffi-backend
  python-crypto python-cryptography python-dbus python-dev python-enum34
  python-gi python-idna python-ipaddress python-keyring python-keyrings.alt
  python-minimal python-pip python-pip-whl python-pkg-resources
  python-secretstorage python-setuptools python-six python-wheel python-xdg
  python2.7 python2.7-dev python2.7-minimal
The following packages will be upgraded:
  libc6 libc6-dbg libexpat1 libpython2.7 libpython2.7-minimal
  libpython2.7-stdlib
```

```
ibrahim@ibrahim-VirtualBox: ~/ibrahimcreategitlabaccount
File Edit View Search Terminal Help
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ sudo apt install pyt
hon-pytest
[sudo] password for ibrahim:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  python-attr python-funcsigns python-pluggy python-py
Suggested packages:
  python-attr-doc python-funcsigns-doc subversion python-pytest-xdist
  python-mock
The following NEW packages will be installed:
  python-attr python-funcsigns python-pluggy python-py python-pytest
0 upgraded, 5 newly installed, 0 to remove and 141 not upgraded.
1 not fully installed or removed.
Need to get 257 kB of archives.
After this operation, 1 246 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu bionic/main amd64 python-attr all 17.
4.0-2 [23,7 kB]
Get:2 http://ru.archive.ubuntu.com/ubuntu bionic/main amd64 python-funcsigns all
1.0.2-4 [13,5 kB]
Get:3 http://ru.archive.ubuntu.com/ubuntu bionic/universe amd64 python-pluggy a
ll 0.6.0-1 [12,2 kB]
Get:4 http://ru.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 python-
py all 1.5.2-1ubuntu0.1 [65,3 kB]
Get:5 http://ru.archive.ubuntu.com/ubuntu bionic/universe amd64 python-pytest a
ll 3.3.2-2 [142 kB]
```

```
ibrahim@ibrahim-VirtualBox: ~/ibrahimcreategitlabaccount
File Edit View Search Terminal Help
Preparing to unpack .../python-funcsigns_1.0.2-4_all.deb ...
Unpacking python-funcsigns (1.0.2-4) ...
Selecting previously unselected package python-pluggy.
Preparing to unpack .../python-pluggy_0.6.0-1_all.deb ...
Unpacking python-pluggy (0.6.0-1) ...
Selecting previously unselected package python-py.
Preparing to unpack .../python-py_1.5.2-1ubuntu0.1_all.deb ...
Unpacking python-py (1.5.2-1ubuntu0.1) ...
Selecting previously unselected package python-pytest.
Preparing to unpack .../python-pytest_3.3.2-2_all.deb ...
Unpacking python-pytest (3.3.2-2) ...
Setting up python-attr (17.4.0-2) ...
Setting up python-py (1.5.2-1ubuntu0.1) ...
Setting up gitlab-ee (14.9.2-ee.0) ...
It looks like there was a problem with public attributes; run gitlab-ctl reconf
igure manually to fix.
dpkg: error processing package gitlab-ee (--configure):
 installed gitlab-ee package post-installation script subprocess returned error
exit status 1
Setting up python-pluggy (0.6.0-1) ...
Setting up python-funcsigns (1.0.2-4) ...
Setting up python-pytest (3.3.2-2) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Errors were encountered while processing:
 gitlab-ee
E: Sub-process /usr/bin/dpkg returned an error code (1)
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$
```

```
ibrahim@ibrahim-VirtualBox: ~/ibrahimcreategitlabaccount
File Edit View Search Terminal Help
Setting up python-pytest (3.3.2-2) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Errors were encountered while processing:
 gitlab-ee
E: Sub-process /usr/bin/dpkg returned an error code (1)
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ ls
README.md
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ git add main.py
fatal: pathspec 'main.py' did not match any files
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ git commit -m "add m
ain file"
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ git add test_main.py
fatal: pathspec 'test_main.py' did not match any files
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ git commit -m "add t
est for main file"
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$ git push
Username for 'https://gitlab.com': baroisyidi@gmail.com
Password for 'https://baroisyidi@gmail.com@gitlab.com':
Everything up-to-date
ibrahim@ibrahim-VirtualBox:~/ibrahimcreategitlabaccount$
```