

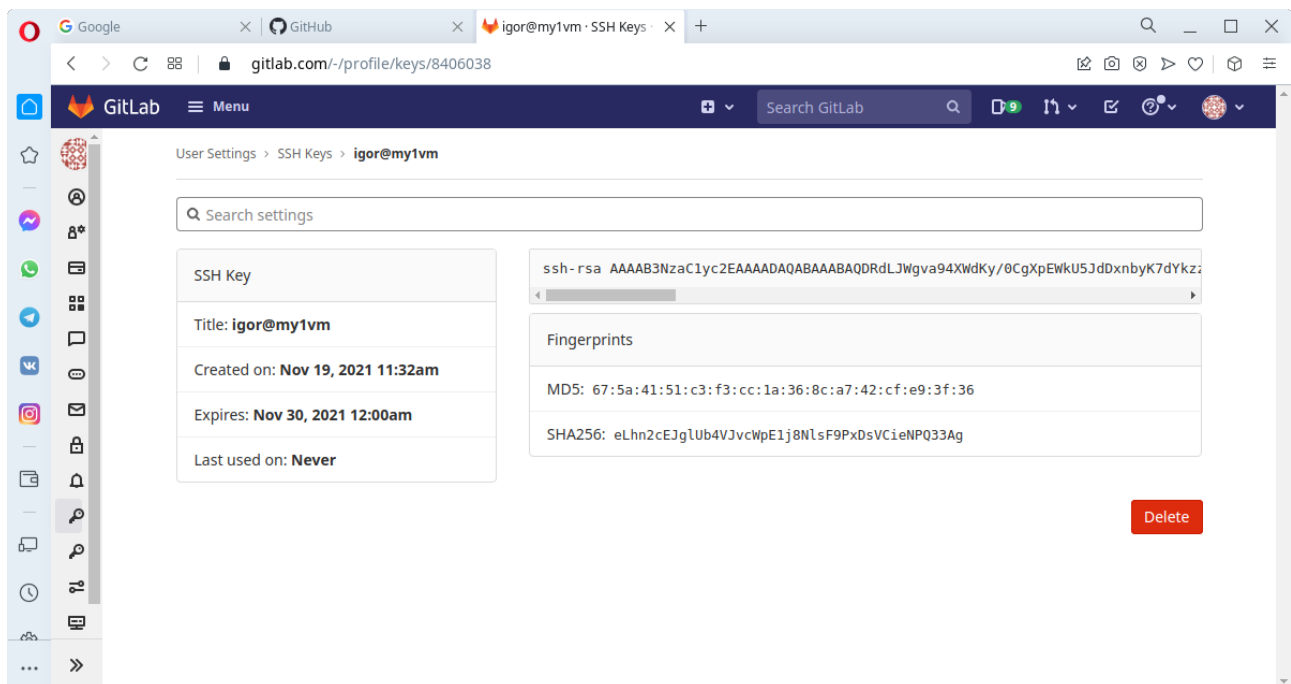
Проверка кластера

```
igor@my1vm: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@my1vm:~$ kubectl cluster-info
Kubernetes control plane is running at https://192.168.49.2:8443
CoreDNS is running at https://192.168.49.2:8443/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy

To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.
igor@my1vm:~$
```

Зарегистрировал аккаунт [GitLab](#). Добавил в настройках своего аккаунта на Gitlab.com свой публичный SSH ключ



```
igor@my1vm: ~/.ssh - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@my1vm:~$ mkdir geekbrains
igor@my1vm:~$ ls
geekbrains  id_rsa_gitlab.pub  kubect1.sh256  minikube-linux-amd64  minikube_latest_amd64.deb
id_rsa_gitlab  kubect1  minikube  minikube-linux-amd64.1
igor@my1vm:~$ cd geekbrains
igor@my1vm:~/geekbrains$ cd app
-bash: cd: app: No such file or directory
igor@my1vm:~/geekbrains$ git init
Initialized empty Git repository in /home/igor/geekbrains/.git/
igor@my1vm:~/geekbrains$ cd ..
igor@my1vm:~$ mkdir cicd
igor@my1vm:~$ cd cicd
igor@my1vm:~/cicd$ git init
Initialized empty Git repository in /home/igor/cicd/.git/
igor@my1vm:~/cicd$ git remote add origin git@gitlab.com:TolstikovIA/geekbrains.git
igor@my1vm:~/cicd$ git add .
igor@my1vm:~/cicd$ git commit -m "initial commit"
On branch master

Initial commit

nothing to commit
igor@my1vm:~/cicd$ git push origin master
error: src refspec master does not match any.
error: failed to push some refs to 'git@gitlab.com:TolstikovIA/geekbrains.git'
igor@my1vm:~/cicd$ git push -u origin master
error: src refspec master does not match any.
error: failed to push some refs to 'git@gitlab.com:TolstikovIA/geekbrains.git'
igor@my1vm:~/cicd$ ssh-add id_rsa_gitlab
Could not open a connection to your authentication agent.
igor@my1vm:~/cicd$ cd ~/.ssh
igor@my1vm:~/.ssh$ ssh-add id_rsa_gitlab
Could not open a connection to your authentication agent.
igor@my1vm:~/.ssh$ ll
total 20
drwx----- 2 igor igor 4096 Nov 19 11:30 ./
drwxr-xr-x 10 igor igor 4096 Nov 19 13:13 ../
-rw----- 1 igor igor 417 Nov 19 07:56 authorized_keys
-rw----- 1 igor igor 1766 Nov 19 11:30 id_rsa_gitlab
-rw-r--r-- 1 igor igor 392 Nov 19 11:28 id_rsa_gitlab.pub
igor@my1vm:~/.ssh$ eval "$(ssh-agent -s)"
SSH_AUTH_SOCK=/tmp/ssh-mY5x23oMAail/agent.92218; export SSH_AUTH_SOCK;
SSH_AGENT_PID=92219; export SSH_AGENT_PID;
echo Agent pid 92219;
igor@my1vm:~/.ssh$ █
```

```
ssh-add id_rsa_gitlab
eval $ssh-agent
eval $ssh-agent -s
eval $(ssh-agent)
```

```
igor@my1vm: ~/.ssh - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/.ssh$ ssh-add id_rsa_gitlab
Could not open a connection to your authentication agent.
igor@my1vm:~/.ssh$ eval $ssh-agent
-bash: eval: -a: invalid option
eval: usage: eval [arg ...]
igor@my1vm:~/.ssh$ eval $ssh-agent -s
-bash: eval: -a: invalid option
eval: usage: eval [arg ...]
igor@my1vm:~/.ssh$ eval $(ssh-agent)
Agent pid 93449
igor@my1vm:~/.ssh$
```

ssh-add id_rsa_gitlab

```
igor@my1vm: ~/.ssh - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
Agent pid 93449
igor@my1vm:~/.ssh$ ssh-add id_rsa_gitlab
Enter passphrase for id_rsa_gitlab:
Identity added: id_rsa_gitlab (id_rsa_gitlab)
igor@my1vm:~/.ssh$
```

cd ~/cicd

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/.ssh$ ssh-add id_rsa_gitlab
Enter passphrase for id_rsa_gitlab:
Identity added: id_rsa_gitlab (id_rsa_gitlab)
igor@my1vm:~/.ssh$ cd ~/cicd
igor@my1vm:~/cicd$
```

git push -u origin master

git push origin master

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ git push -u origin master
error: src refspec master does not match any.
error: failed to push some refs to 'git@gitlab.com:TolstikovIA/geekbrains.git'
igor@my1vm:~/cicd$ git push origin master
error: src refspec master does not match any.
error: failed to push some refs to 'git@gitlab.com:TolstikovIA/geekbrains.git'
igor@my1vm:~/cicd$
```

git status

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ git status
On branch master

No commits yet

nothing to commit (create/copy files and use "git add" to track)
igor@my1vm:~/cicd$
```

echo "test" >> test.txt

git add .

git commit -m "Initial commit"

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@my1vm:~/cicd$ echo "test" >> test.txt
igor@my1vm:~/cicd$ git commit -m "Initial commit"
On branch master

Initial commit

Untracked files:
  test.txt

nothing added to commit but untracked files present
igor@my1vm:~/cicd$ git add .
igor@my1vm:~/cicd$ git commit -m "Initial commit"
[master (root-commit) 1865302] Initial commit
1 file changed, 1 insertion(+)
create mode 100644 test.txt
igor@my1vm:~/cicd$
```

git push -u origin master

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@my1vm:~/cicd$ git push -u origin master
The authenticity of host 'gitlab.com (172.65.251.78)' can't be established.
ECDSA key fingerprint is SHA256:HbW3g8zUjNSksFbqTiUWPwg2Bq1x8xdGUrliXFzSnUw.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'gitlab.com,172.65.251.78' (ECDSA) to the list of known hosts.
Counting objects: 3, done.
Writing objects: 100% (3/3), 221 bytes | 221.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
remote:
remote: To create a merge request for master, visit:
remote:   https://gitlab.com/TolstikovIA/geekbrains/-/merge_requests/new?merge_request%5Bsource_branch%5D=master
remote:
remote: To gitlab.com:TolstikovIA/geekbrains.git
* [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
igor@my1vm:~/cicd$
```

git push -u origin main
kubectl create ns gitlab

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@my1vm:~/cicd$ git push -u origin main
error: src refspec main does not match any.
error: failed to push some refs to 'git@gitlab.com:TolstikovIA/geekbrains.git'
igor@my1vm:~/cicd$ kubectl create ns gitlab
namespace/gitlab created
igor@my1vm:~/cicd$
```

kubectl get ns

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

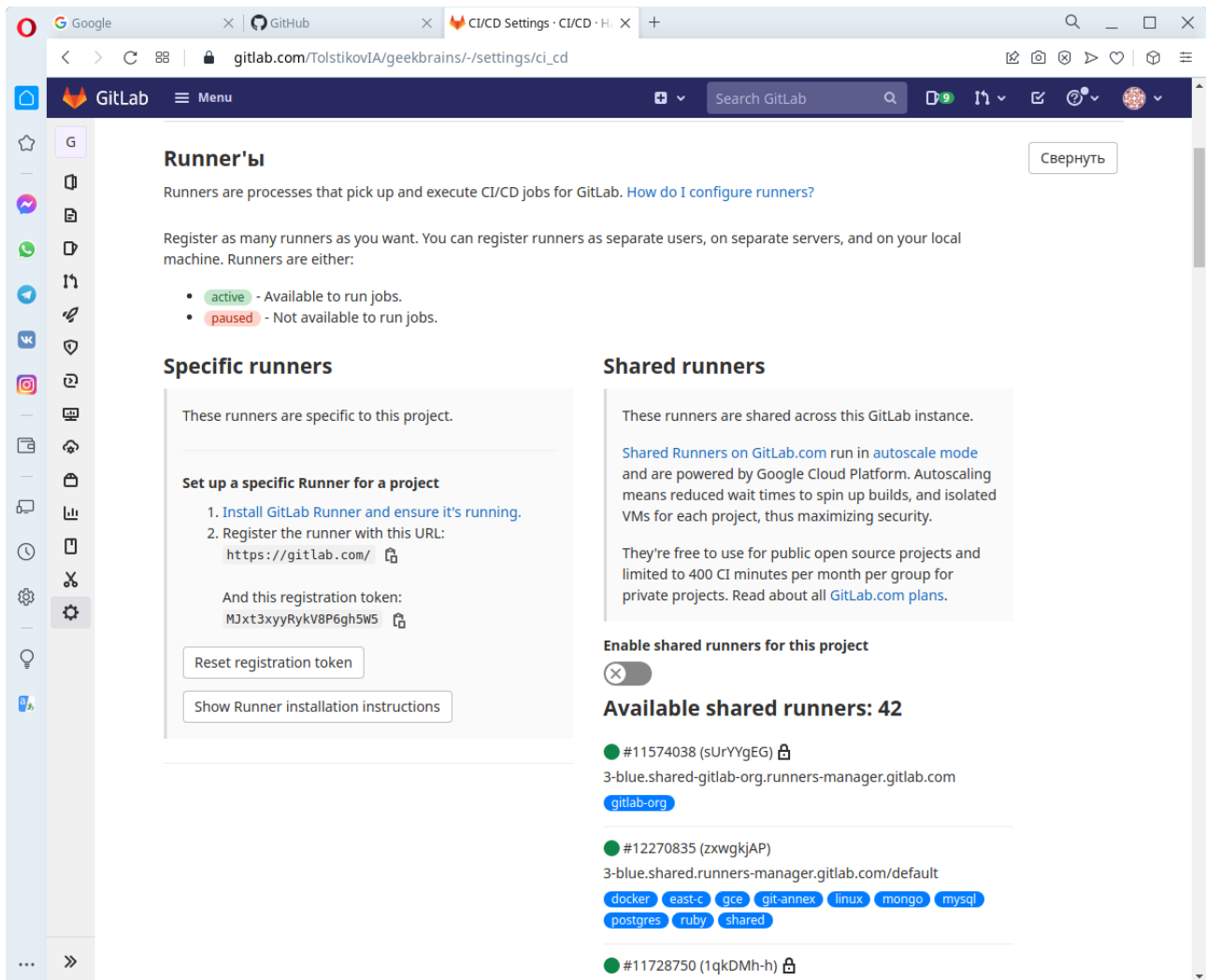
igor@my1vm:~/cicd$ kubectl get ns
NAME          STATUS   AGE
default       Active   15h
gitlab        Active   4m33s
kube-node-lease Active   15h
kube-public   Active   15h
kube-system   Active   15h
igor@my1vm:~/cicd$
```

kubectl create ns stage
kubectl create ns prod

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ kubectl create ns stage
namespace/stage created
igor@my1vm:~/cicd$ kubectl create ns prod
namespace/prod created
igor@my1vm:~/cicd$
```

Shared runners

disable shared runners for this project



Set up a specific Runner for a project

And this registration token:

MJxt3xyyRykv8P6gh5W5

vi gitlab-runner.yaml

git add .

```

igor@my1vm: ~/geekbrains/practice/8.ci-cd/gitlab-runner - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

---
apiVersion: v1
kind: ServiceAccount
metadata:
  name: gitlab-runner
  labels:
    app: gitlab-runner
---
apiVersion: rbac.authorization.k8s.io/v1
kind: Role
metadata:
  name: gitlab-runner
  labels:
    app: gitlab-runner
rules:
- apiGroups: ["" ]
  resources: ["" ]
  verbs: ["" ]
---
apiVersion: rbac.authorization.k8s.io/v1
kind: RoleBinding
metadata:
  name: gitlab-runner
  labels:
    app: gitlab-runner
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: Role
  name: gitlab-runner
subjects:
- kind: ServiceAccount
  name: gitlab-runner
  namespace: gitlab
---
apiVersion: v1
kind: Secret
metadata:
  name: gitlab-runner
  labels:
    app: gitlab-runner
type: Opaque
stringData:
  runner-registration-token: MJxt3xyRykV8P6gh5W5
  runner-token: ""
---
apiVersion: v1
kind: ConfigMap
metadata:
  name: gitlab-runner
  labels:
    app: gitlab-runner
data:
  entrypoint: |
    #!/bin/bash
    set -e
    mkdir -p /home/gitlab-runner/.gitlab-runner/
    cp /scripts/config.toml /home/gitlab-runner/.gitlab-runner/

    # Register the runner
    if [ [ -f /secrets/accesskey && -f /secrets/secretkey ] ]; then
      export CACHE_S3_ACCESS_KEY=$(cat /secrets/accesskey)
      export CACHE_S3_SECRET_KEY=$(cat /secrets/secretkey)
    fi

    if [ [ -f /secrets/gcs-application-credentials-file ] ]; then
      export GOOGLE_APPLICATION_CREDENTIALS="/secrets/gcs-application-credentials-file"
    elif [ [ -f /secrets/gcs-application-credentials-file ] ]; then
      export GOOGLE_APPLICATION_CREDENTIALS="/secrets/gcs-application-credentials-file"
    else
      if [ [ -f /secrets/gcs-access-id && -f /secrets/gcs-private-key ] ]; then
        export CACHE_GCS_ACCESS_ID=$(cat /secrets/gcs-access-id)
        # echo -e used to make private key multiline (in google json auth key private key is oneline with \n)
        export CACHE_GCS_PRIVATE_KEY=$(echo -e $(cat /secrets/gcs-private-key))
      fi
    fi

    if [ [ -f /secrets/runner-registration-token ] ]; then
      export REGISTRATION_TOKEN=$(cat /secrets/runner-registration-token)
    fi

    if [ [ -f /secrets/runner-token ] ]; then
      export CI_SERVER_TOKEN=$(cat /secrets/runner-token)
    fi

    if ! sh /scripts/register-the-runner; then
      exit 1
    fi

    # Start the runner
    exec /entrypoint run --user=gitlab-runner \
      --working-directory=/home/gitlab-runner

config.toml: |
  concurrent = 3
  check_interval = 30
  log_level = "info"
configure: |
  set -e
  cp /init-secrets/* /secrets
register-the-runner: |
  #!/bin/bash
  MAX_REGISTER_ATTEMPTS=30

  for i in $(seq 1 "${MAX_REGISTER_ATTEMPTS}"); do
    echo "Registration attempt ${i} of ${MAX_REGISTER_ATTEMPTS}"
    /entrypoint register \
      --non-interactive

    retval=$?

    if [ ${retval} = 0 ]; then
      break
    elif [ ${i} = ${MAX_REGISTER_ATTEMPTS} ]; then
      exit 1
    fi

    sleep 5
  done

  exit 0
:wg

```



```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ git add .
igor@my1vm:~/cicd$ vi gitlab-runner.yml
Error detected while processing /home/igor/.vimrc:
line 1:
E487: Argument must be positive: tabstop=0
Press ENTER or type command to continue
igor@my1vm:~/cicd$
```

kubectl apply --namespace gitlab -f gitlab-runner/gitlab-runner.yml

```
igor@my1vm: ~/geekbrains/practice/8.ci-cd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/geekbrains/practice/8.ci-cd/gitlab-runner$ cd ..
igor@my1vm:~/geekbrains/practice/8.ci-cd$ kubectl apply --namespace gitlab -f gitlab-runner/gitlab-runner.yml
serviceaccount/gitlab-runner created
role.rbac.authorization.k8s.io/gitlab-runner created
rolebinding.rbac.authorization.k8s.io/gitlab-runner created
secret/gitlab-runner created
configmap/gitlab-runner created
deployment.apps/gitlab-runner created
igor@my1vm:~/geekbrains/practice/8.ci-cd$
```

Доступные специфические runner'ы

GitLab.com/TolstikovIA/geekbrains/-/settings/ci_cd

active - Available to run jobs.
paused - Not available to run jobs.

Specific runners

These runners are specific to this project.

Set up a specific Runner for a project

1. Install GitLab Runner and ensure it's running.
2. Register the runner with this URL:
<https://gitlab.com/>

And this registration token:
MJxt3xyyRykV8P6gh5W5

Reset registration token

Show Runner installation instructions

Shared runners

These runners are shared across this GitLab instance.

[Shared Runners on GitLab.com](#) run in [autoscale mode](#) and are powered by Google Cloud Platform. Autoscaling means reduced wait times to spin up builds, and isolated VMs for each project, thus maximizing security.

They're free to use for public open source projects and limited to 400 CI minutes per month per group for private projects. Read about all [GitLab.com plans](#).

User validation required

Shared runners cannot be enabled until a valid credit card is on file.

[Validate account](#)

Доступные специфические runner'ы

- #12373398 (zNHTu4kf) [Remove runner](#)
gitlab-runner-7467648488-lgtzc

Available shared runners: 42

- #11574038 (sUrYyEG) [Remove runner](#)
3-blue.shared-gitlab-org.runners-manager.gitlab.com
[gitlab-org](#)
- #11574076 (8zCxmPt) [Remove runner](#)
2-green.shared-gitlab-org.runners-manager.gitlab.com

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/geekbrains/practice/8.ci-cd$ cd ~/cicd
igor@my1vm:~/cicd$ kubectl get ns
NAME                STATUS  AGE
default             Active  18h
gitlab              Active  3h2m
kube-node-lease     Active  18h
kube-public         Active  18h
kube-system         Active  18h
prod                Active  167m
stage               Active  167m
igor@my1vm:~/cicd$
```

```
kubectl create sa deploy --namespace stage
kubectl create rolebinding deploy --serviceaccount stage:deploy --clusterrole edit --namespace
stage
kubectl create sa deploy --namespace prod
kubectl create rolebinding deploy --serviceaccount prod:deploy --clusterrole edit --namespace
prod
```

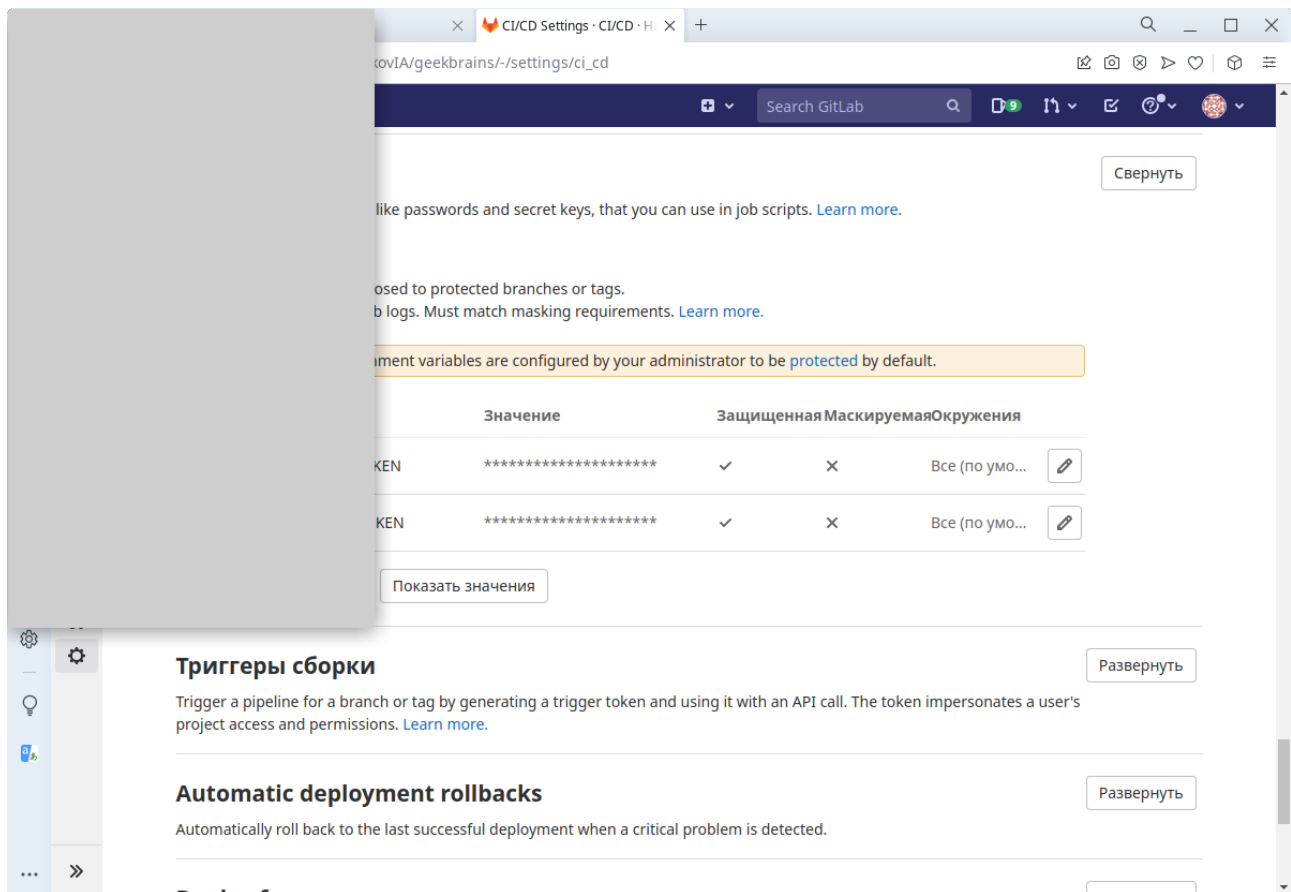
```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ kubectl create sa deploy --namespace stage
serviceaccount/deploy created
igor@my1vm:~/cicd$ kubectl create rolebinding deploy --serviceaccount stage:deploy --clusterrole edit --namespace stage
rolebinding.rbac.authorization.k8s.io/deploy created
igor@my1vm:~/cicd$ kubectl create sa deploy --namespace prod
serviceaccount/deploy created
igor@my1vm:~/cicd$ kubectl create rolebinding deploy --serviceaccount prod:deploy --clusterrole edit --namespace prod
rolebinding.rbac.authorization.k8s.io/deploy created
igor@my1vm:~/cicd$
```

```
export NAMESPACE=stage; kubectl get secret $(kubectl get sa deploy --namespace
$NAMESPACE -o jsonpath='{.secrets[0].name}') --namespace $NAMESPACE -o
jsonpath='{.data.token}'
```

```
--namespace $NAMESPACE -o jsonpath='{.data.token}'
ZXlKaGJHY2lPaUpTVXpJMU5pSXNjbXRwWkNjNklrMHhSbkJoTld0SGJGSTNlRU5FUmt4V
VozWlJhV3RPU0ZGSVlyTkZSVXc0U0VWV2VXbzBXbk00TkZVaWZRLmV5SnBjM01pT2lKc
mRXSmxjbTVsZEdWekwzTmxjbWpWTJWafkyTnZkVzUwSWl3aWEzVmlaWEp1WlhSbGN5N
XBieTl6WlhKMmFXTmxZV05qYjNWdWRDOXVZVzFsYzNCaFkyVWlPaUp6ZEdGb1pTSXNJ
bXQxWW1WeWJtVjBaWE11YVc4dmMyVnlkbWxqWldGalkyOTFib1F2YzJWamNtVjBMbTVo
YldVaU9pSmtaWEJzYjNrdGRHOXJaVzR0ZUhOaloZb2lMQ0pyZFdkbGNtNWxkR1Z6TG1sdkw
zTmxjbWpWTJWafkyTnZkVzUwTDNOBGnuWnBZMlV0WVdOamIzVnVkQzV1WVcxblq2l
aR1Z3Ykc5NUlpd2lhM1ZpWlhKdVpYUmxjeTVwYnk5elpYSjJhV05sWVdOamIzVnVkQzl6Wlh
KMmFXTmxMV0ZqWTI5MWJuUXVkv2xrSWpvaU5UZ3hNMIk1WVdVdE1EY3lOQzAwWmp
aa0xXSml1ZV1l0WkRRReU5EQTRObVE0WWpVNElpd2ljM1ZpSWpvaWMzbHpkR1Z0T25ObG
NuWnBZMlZoWTJlOdmRXNTBPbk4wWVdkbE9tUmxjR3h2ZVNKOS5ReFg2Vm8zNzBqZlV5b
W43ZE5WeThfNndRNlRWTlBONkxYSWMxNEI2OFM2aEd0a1hxS18tZGhCQk5Sc1NNMmV5
TnJVZFBVaUgwQ2tVeUIxN0tOQzlSUU9LTXA0eGdzbmZKaEppVklISW9DYzJ2a1h0T0lzTE95
eXcwR2dCWjFGSjNiX20tTkplTGyXWUN5ZGdhZFY3YU01Mmx4NkpTZ2Y3TGpKTXlvSi1N
RjV5NjhMNEFoWlZuRmtBUmR1RFFvZ3haN0p6THVOQmFHXzk4U1NlN1IxSGRKB3R6cUx2e
XhWWFYtZmtVLVMzM1RqY0hXMmdYdGF4dHdxUEM5aVFxVWdINTFyOEJlS181OVB0Yn
FkRjhLT1VyMFZSNzhNdHhCcGJxWnMwVnp6YUziY0F1eVVBajRTVXM5S3Bjb19DNEpzQnd
aa1hPaHRtTWZrb18ySHBaODVSeEE=ig
```


ZXlKaGJHY2lPaUpTVXpJMU5pSXNJbXRwWkNjNklrMHhSbkJoTld0SGJGSTNIRU5FUmt4V
VozWlJhV3RPU0ZGSVlyTkZSVXc0U0VWV2VXbzBXbk00TkZVaWZRLmV5SnBjM01pT2lKc
mRXSmxjbTVsZEdWekwzTmxjblpwWTJWaFkyTnZkVzUwSWl3aWEzVmIaWEp1WlhSbGN5N
XBieTl6WlhKMmFXTmxZV05qYjNWdWRDOXVZVzFsYzNcAFkyVWlPaUp3Y205a0lpd2lhM
1ZpWlhKdVpYUmxjeTVwYnk5elpYSjJhV05sWVdOamIzVnVkQzl6WldOeVpYUXVibUZ0WlN
JNkltUmxjR3h2ZVMxMGlydGxiaTB5WkhOM2JTSXNJbXQxWW1WeWJtVjBaWE11YVc4dm
MyVnlkbWxqWldGalkyOTFiblf2YzJWeWRtbGpaUzFoWTJOdmRXNTBMbTVoYldVaU9pSmta
WEJzYjNraUxDSnJkV0psY201bGRHVnpMbWx2TDNOBGnuWnBZMlZoWTJOdmRXNTBMM
05sY25acFkyVXRZV05qYjNWdWRDNTFhV1FpT2lJmll6QTRZakprTlMweU1tWXIMVFJtTW1
JdFlUUXdZeTFRtURSa1pqqa3lZbUU1T1dZaUxDSnpkV0lpT2lKemVYTjBaVzA2YzJWeWRtbGp
aV0ZqWTI5MWJuUTZjSEp2WkRwa1pYQnNiM2tpZlEuRmpoa2FkSWhGOFFKS1Vfa0hxZXpH
Z0VwTkQ1WldUcHAtaTRVY0xISG1UVFd1emprZVR2d0lKZk5LMjR3cmqtQVdaWFFSblJIRkN
KckNTdmkxZEtbC0Y4OTRXbTgxNEVsZm5vWmlvdFNZU1hVM3FwcVZub21PWENfa0dnZlN
OZW02ZUZBWDlvQU9NRmdPZTN1OXNOVThTemV6Uk1KQUZuR2JjMHNdHdjRtR2RKcFZw
bnZqZ0NXRFdna2hHTmNjY0RHeTcyOHdDNnYwdVU3c0dEbzUyTlV1aVhERmlUdGpvM2ctN
0dpbXBXMTZ0cjI1YzVWSFF5Tk1PR21DaW5VRzJORHVOREJ3c2Q4d3E1cVlaRm5tbG9wczd
FWi1BTEU5R2VscWVvbkNjLUNaa2FqcDFXSkd2YnhBa21udTlwb1dKU0szQzlx2dsVGZ2Tm
kycVJ2bDJUigor@my1vm

[illegible]



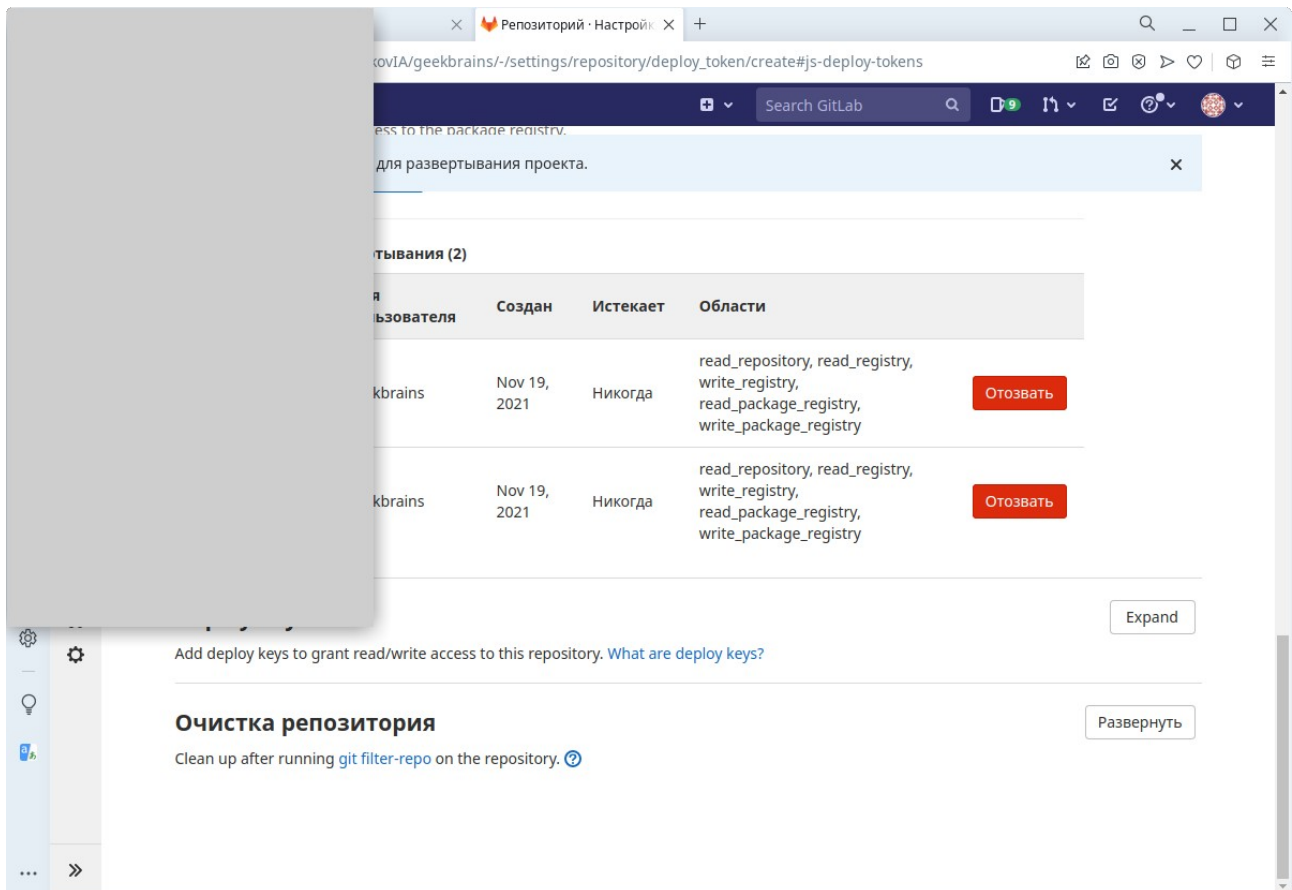
Deploy tokens

Geekbrains stage

nhYE8mUscBo2vNbc1qzL

geekbrains prod

G2md2EAgR6EPsGGxkM5_



```
kubectl create secret docker-registry gitlab-registry --docker-server=registry.gitlab.com --docker-username=<USERNAME> --docker-password=<PASSWORD> --docker-email=admin@admin.admin --namespace stage
kubectl create secret docker-registry gitlab-registry --docker-server=registry.gitlab.com --docker-username=<USERNAME> --docker-password=<PASSWORD> --docker-email=admin@admin.admin --namespace prod
```

```
kubectl create secret docker-registry gitlab-registry --docker-server=registry.gitlab.com --docker-username=geekbrains --docker-password=nhYE8mUscBo2vNbc1qzL --docker-email=admin@admin.admin --namespace stage
```

```
kubectl create secret docker-registry gitlab-registry --docker-server=registry.gitlab.com --docker-username=geekbrains --docker-password=G2md2EAgR6EPsGGxkM5 --docker-email=admin@admin.admin --namespace prod
```

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ kubectl create secret docker-registry gitlab-registry --docker-server=registry.gitlab.com --docker-username=geekbrains --docker-password=nhYE8mUscBo2vNbc1qzL --docker-email=admin@admin.admin --namespace stage
secret/gitlab-registry created
igor@my1vm:~/cicd$ kubectl create secret docker-registry gitlab-registry --docker-server=registry.gitlab.com --docker-username=geekbrains --docker-password=G2md2EAgR6EPsGGxkM5 --docker-email=admin@admin.admin --namespace prod
secret/gitlab-registry created
igor@my1vm:~/cicd$
```

```
kubectl patch serviceaccount default -p '{"imagePullSecrets": [{"name": "gitlab-registry"}]}' -n stage
kubectl patch serviceaccount default -p '{"imagePullSecrets": [{"name": "gitlab-registry"}]}' -n prod
```

```
igor@my1vm: ~/cicd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/cicd$ kubectl patch serviceaccount default -p '{"imagePullSecrets": [{"name": "gitlab-registry"}]}' -n stage
serviceaccount/default patched
igor@my1vm:~/cicd$ kubectl patch serviceaccount default -p '{"imagePullSecrets": [{"name": "gitlab-registry"}]}' -n prod
serviceaccount/default patched
igor@my1vm:~/cicd$
```

[kubectl apply --namespace stage -f app/kube/postgres/](#)

[kubectl apply --namespace prod -f app/kube/postgres/](#)

```
igor@my1vm: ~/geekbrains/practice/8.ci-cd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/geekbrains/practice/8.ci-cd$ kubectl apply --namespace stage -f app/kube/postgres/
secret/app created
service/database created
statefulset.apps/database created
igor@my1vm:~/geekbrains/practice/8.ci-cd$ kubectl apply --namespace prod -f app/kube/postgres/
secret/app created
service/database created
statefulset.apps/database created
igor@my1vm:~/geekbrains/practice/8.ci-cd$
```

[vi app/kube/ingress.yaml](#)

```
igor@my1vm: ~/geekbrains/practice/8.ci-cd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: geekbrains
  annotations:
    kubernetes.io/ingress.class: nginx-external
spec:
  rules:
    - host: postgres.stage.info
      http:
        paths:
          - path: /users
            pathType: Prefix
            backend:
              service:
                name: prometheus
                port:
                  number: 8080
:wg
```

[kubectl apply --namespace stage -f app/kube](#)

```
igor@my1vm: ~/geekbrains/practice/8.ci-cd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@my1vm:~/geekbrains/practice/8.ci-cd$ kubectl apply --namespace stage -f app/kube
deployment.apps/geekbrains created
ingress.networking.k8s.io/geekbrains created
service/geekbrains created
igor@my1vm:~/geekbrains/practice/8.ci-cd$
```

```
igor@my1vm: ~/geekbrains/practice/8.ci-cd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: geekbrains
  annotations:
    kubernetes.io/ingress.class: nginx-external
spec:
  rules:
    - host: postgres.prod.info
      http:
        paths:
          - path: /users
            pathType: Prefix
            backend:
              service:
                name: prometheus
                port:
                  number: 8080

-- INSERT --
```

`kubectl apply --namespace prod -f app/kube`

```
igor@my1vm: ~/geekbrains/practice/8.ci-cd - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@my1vm:~/geekbrains/practice/8.ci-cd$ kubectl apply --namespace prod -f app/kube
deployment.apps/geekbrains created
ingress.networking.k8s.io/geekbrains created
service/geekbrains created
igor@my1vm:~/geekbrains/practice/8.ci-cd$
```