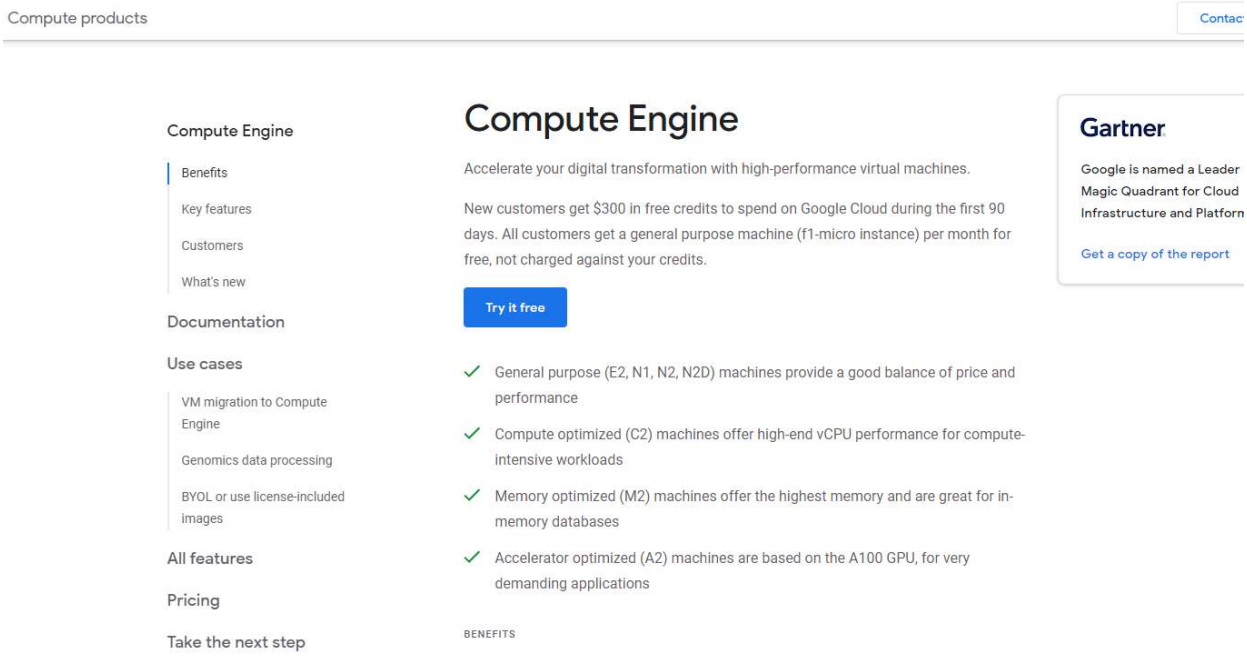
Navodila za ustvarjanje virtualke na GCloud-u

Link -> GCloud

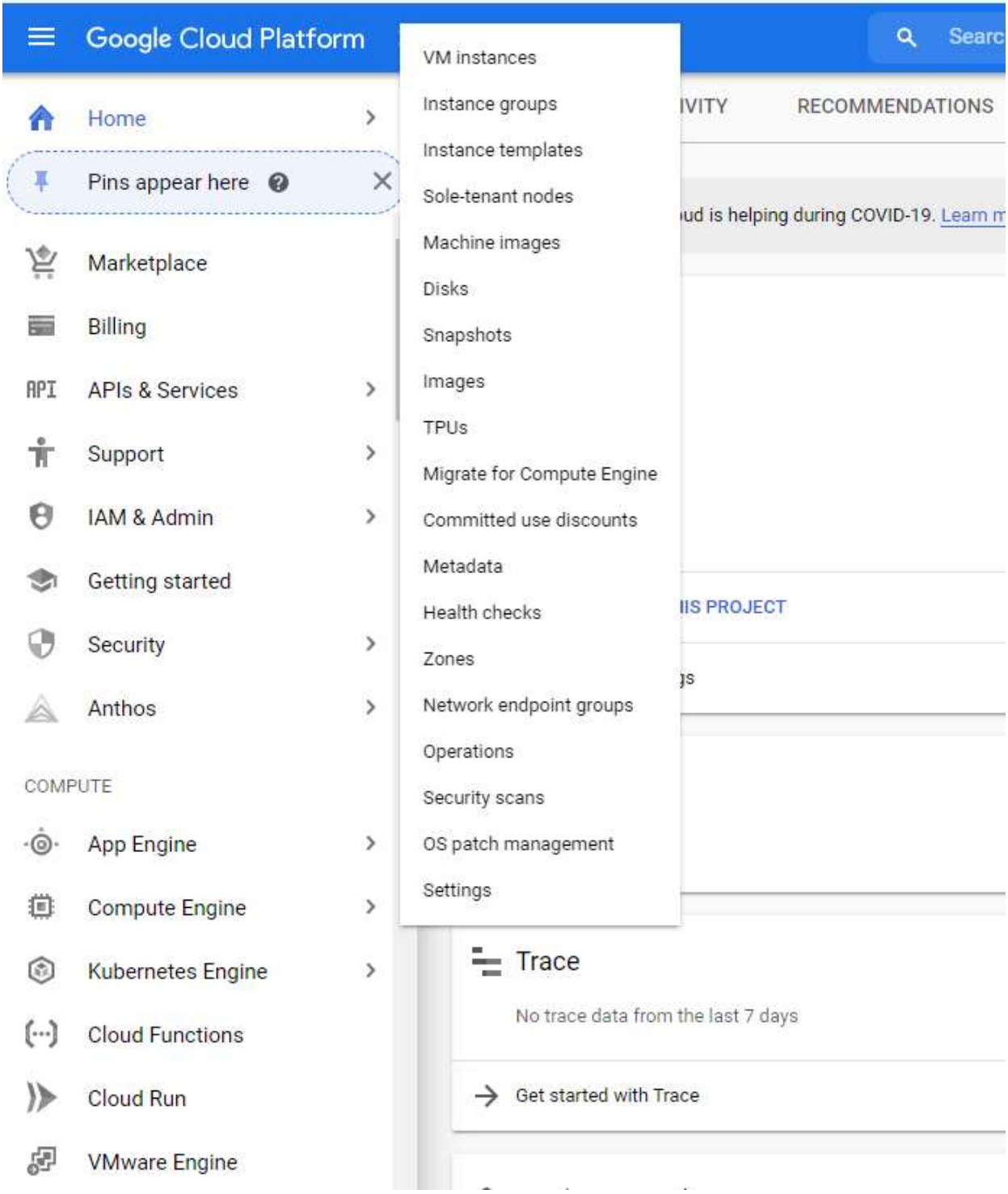
"Try for free" in se prijavimo z google računom. Potrebno je podatki bančni račun.

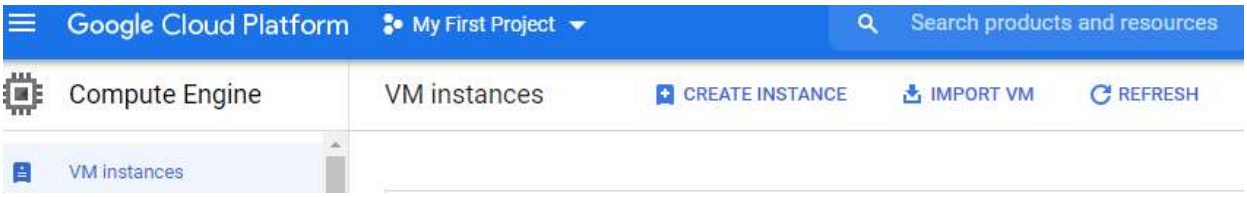
> Accelerate your digital transformation with high-performance virtual machines. New customers get $300 in free credits to spend on Google Cloud during the first 90 days. All customers get a general purpose machine (f1-micro instance) per month for free, not charged against your credits.

-> Bančna kartica je porebna zaradi preverjanja indentitete. Po poteku promocijskega obdobija, je porebno posebej aktivirati če želite plačevati za virtualke.



Usvarimo virtualno mašino. -> Izberemo VM istances

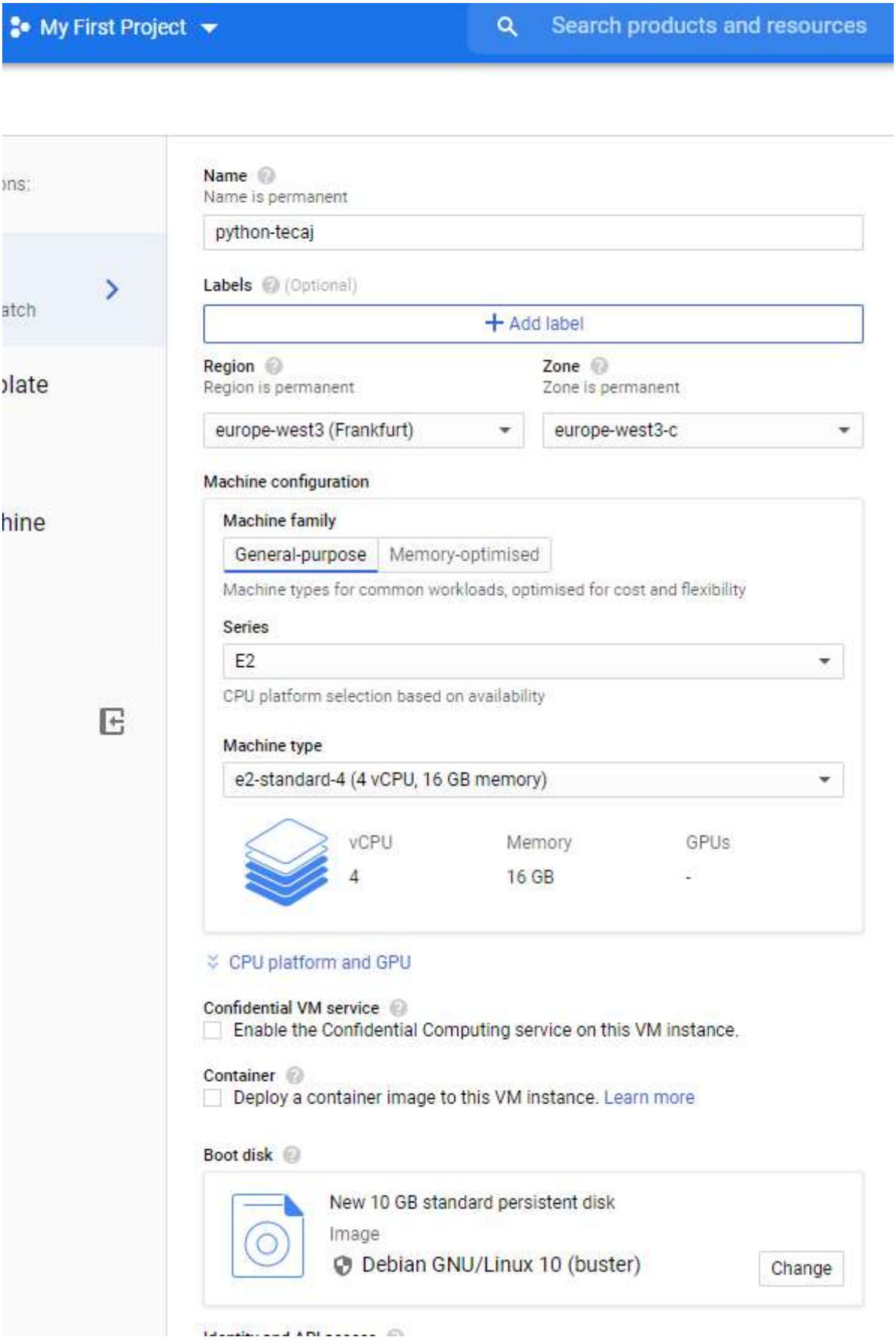




Name: python-tecaj (oziroma poljubno)

Region: Evropska regija (optimalno: europe-west-3)

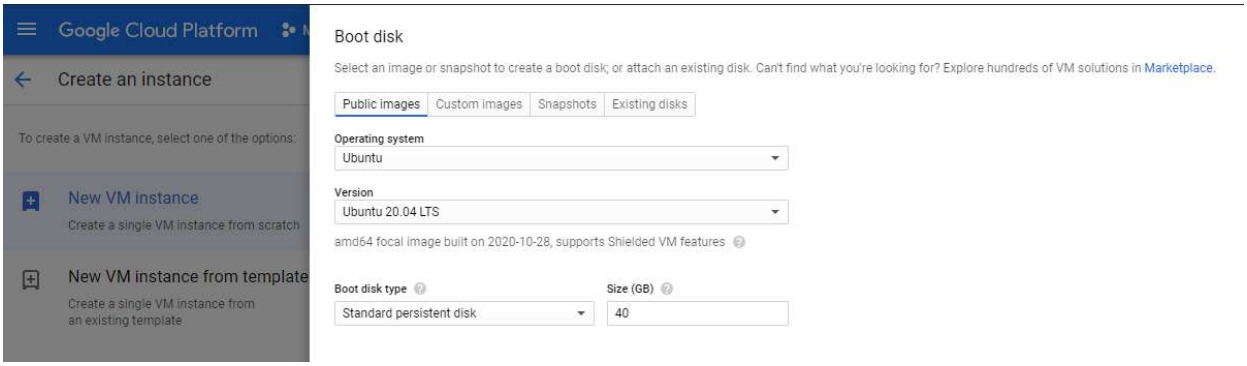
Machine configuration: e2-standard-4 (oziroma poljubno)



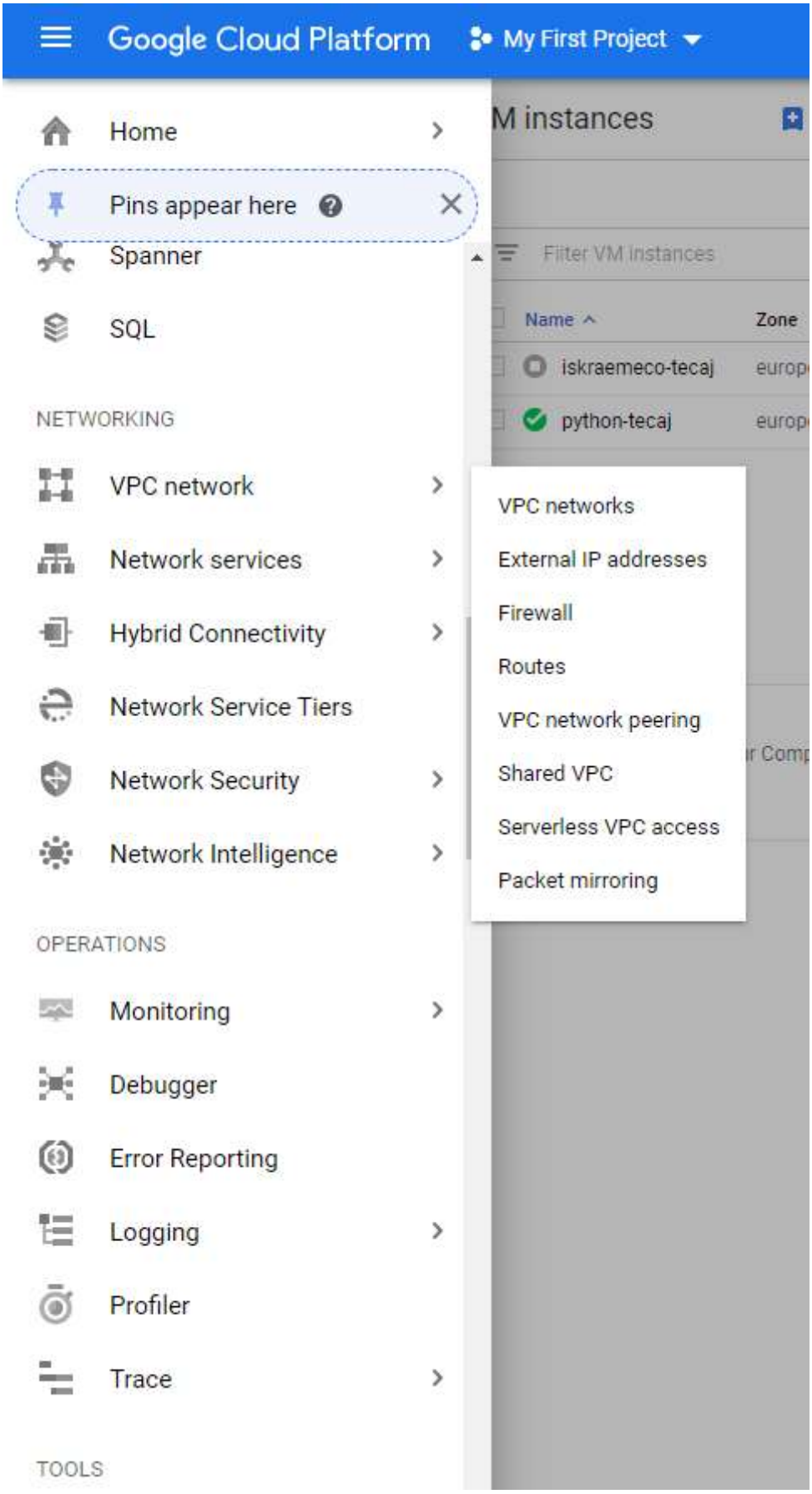
Boot disk: Spremenimo v Ubuntu 20.0.4 LTS

Size (GB): 40GB

Ostale nastavitve pustimo privzete.



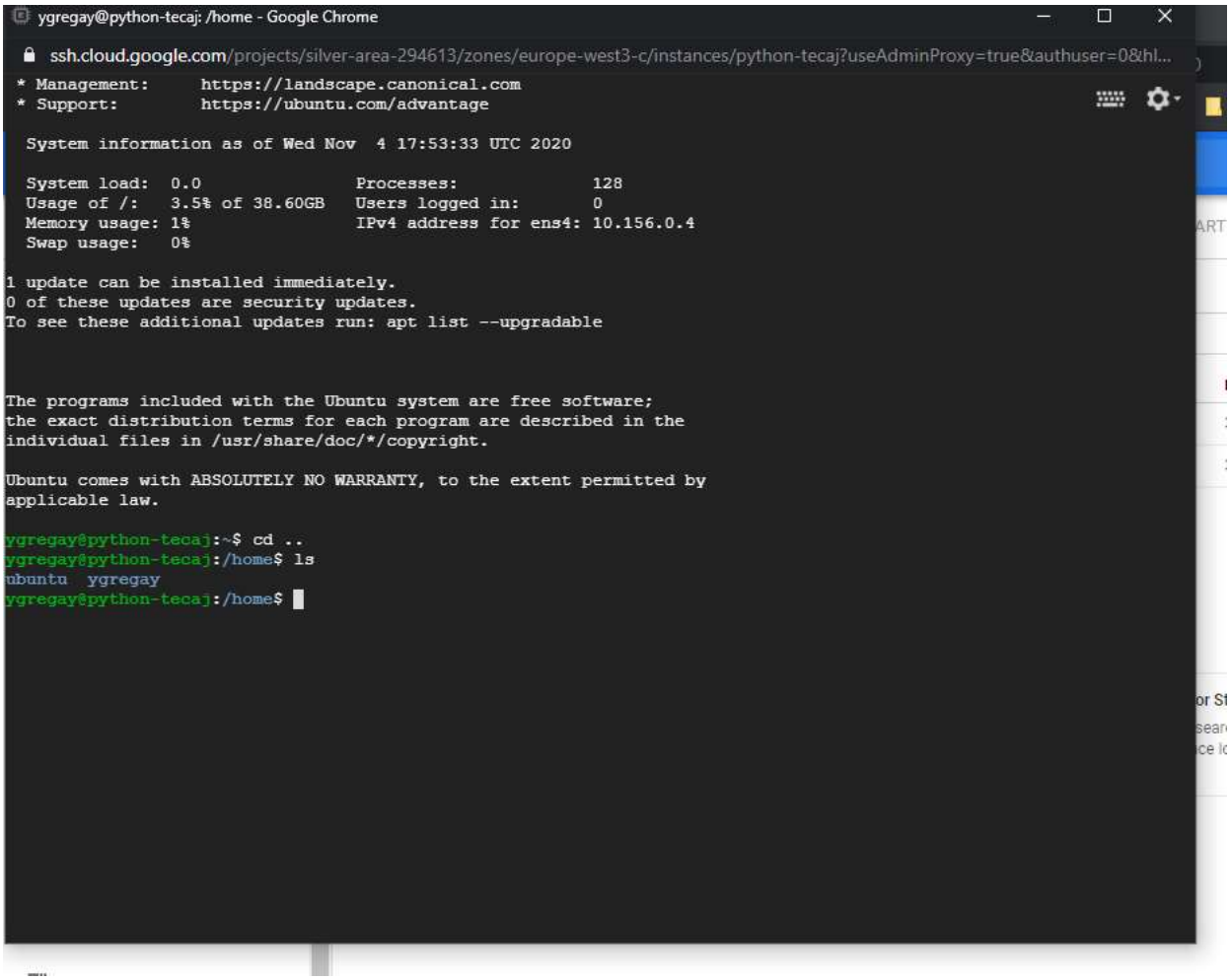
Odpremo Networking -> VPC network -> External IP addresses.



Tip naše virtualke spremenito iz *Ephemeral* v *Static*. Ime je lahko poljubno.

Sprva vzpostavimo SSH povezavo tako, da kliknemo gumb SSH, ki nam odpre konzolo v novem browser oknu.

Premaknemo se v *home* direktorij.



Ustvarimo novega uporabnika `sudo adduser <new_user>`

```
ygregay@python-tecaj:~$ cd ..
ygregay@python-tecaj:/home$ ls
ubuntu  ygregay
ygregay@python-tecaj:/home$ sudo adduser gregor
Adding user `gregor' ...
Adding new group `gregor' (1003) ...
Adding new user `gregor' (1002) with group `gregor' ...
Creating home directory `/home/gregor' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for gregor
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
```

In ga premaknemo v sudo skupino. `sudo usermod -aG sudo <new_user>`

```
ygregay@python-tecaj:~$ sudo usermod -aG sudo gregor
ygregay@python-tecaj:~$
```

Zamenjamo na novonarejenega uporabnika. `su <new_user>`

In se premaknemo v njegovo mapo. `cd`

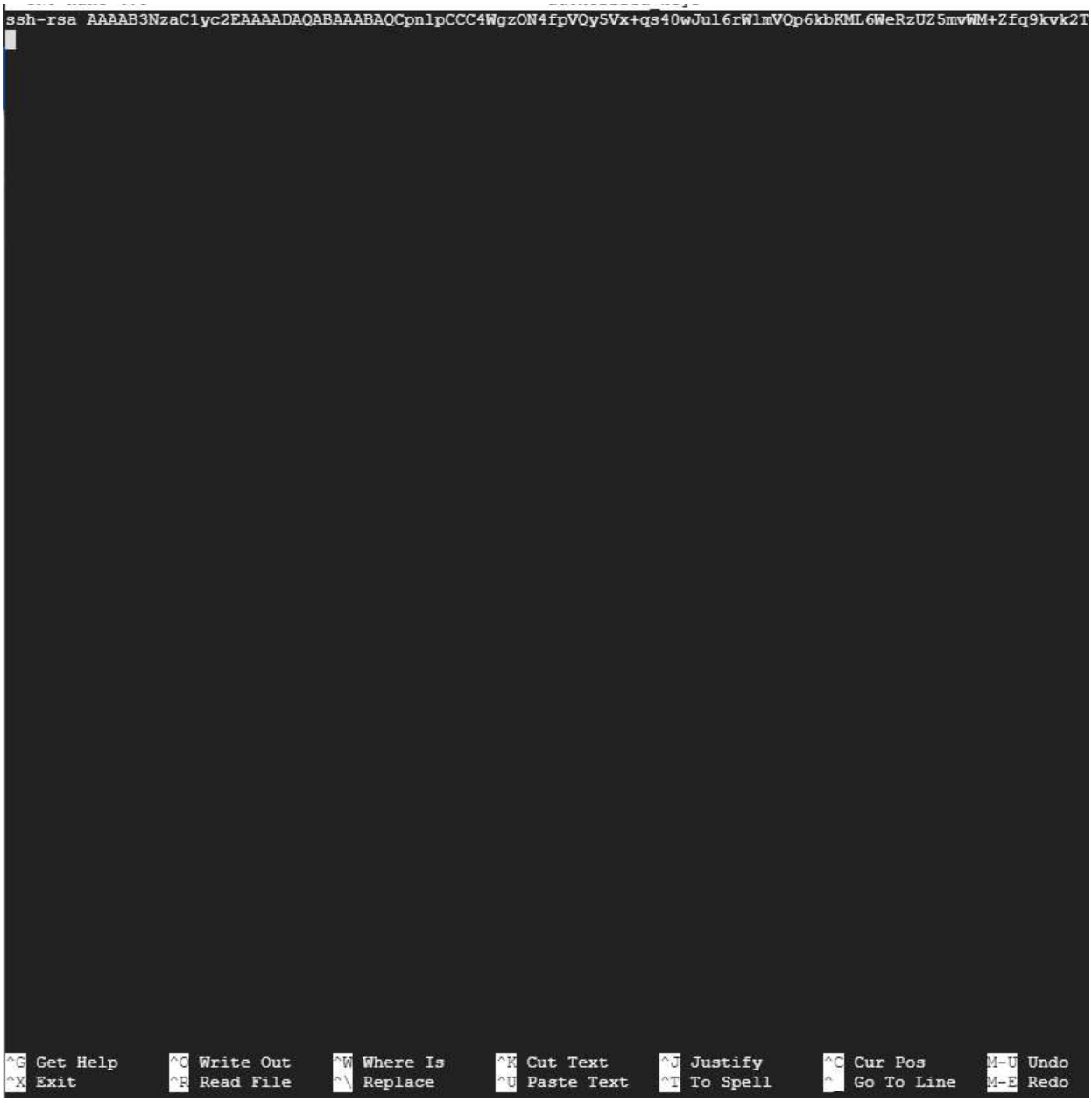
Ustvarimo mapo .ssh. `mkdir .ssh`

In se premaknemo v to mapo. `cd .ssh`

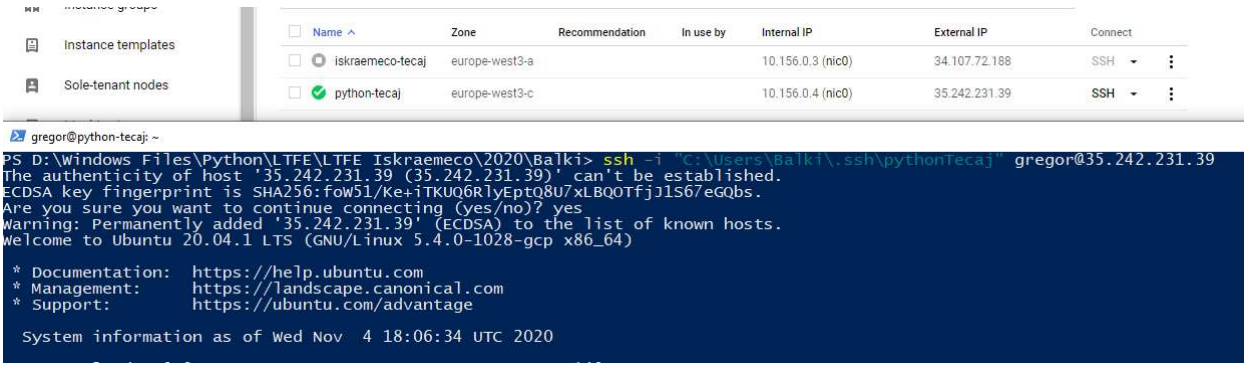
```
ygregay@python-tecaj:/home$ su gregor
Password:
gregor@python-tecaj:/home$ cd
gregor@python-tecaj:~$ ls
gregor@python-tecaj:~$ ls -la
total 20
drwxr-xr-x 2 gregor gregor 4096 Nov  4 17:56 .
drwxr-xr-x 5 root   root   4096 Nov  4 17:56 ..
-rw-r--r-- 1 gregor gregor  220 Nov  4 17:56 .bash_logout
-rw-r--r-- 1 gregor gregor 3771 Nov  4 17:56 .bashrc
-rw-r--r-- 1 gregor gregor  807 Nov  4 17:56 .profile
gregor@python-tecaj:~$ mkdir .ssh
gregor@python-tecaj:~$ cd .ssh
gregor@python-tecaj:~/.ssh$ ls -la
total 8
drwxrwxr-x 2 gregor gregor 4096 Nov  4 18:00 .
drwxr-xr-x 3 gregor gregor 4096 Nov  4 18:00 ..
gregor@python-tecaj:~/.ssh$
```

Ustvarimo nov file authorized_keys. `nano authorized_keys`

Vanj prilepimo public key (to je public key našaga računalnika s katerim se želimo povezati na vritualko).



Sedaj se lahko preko powershella povežemo. `ssh -i "<pot\do\nasega\kljuca>" <new_user>@<external_IP>` (pot do ključa je potrebna če ni v privzeti mapi)



Zaženemo sledeče ukaze

```
sudo apt-get update;
```

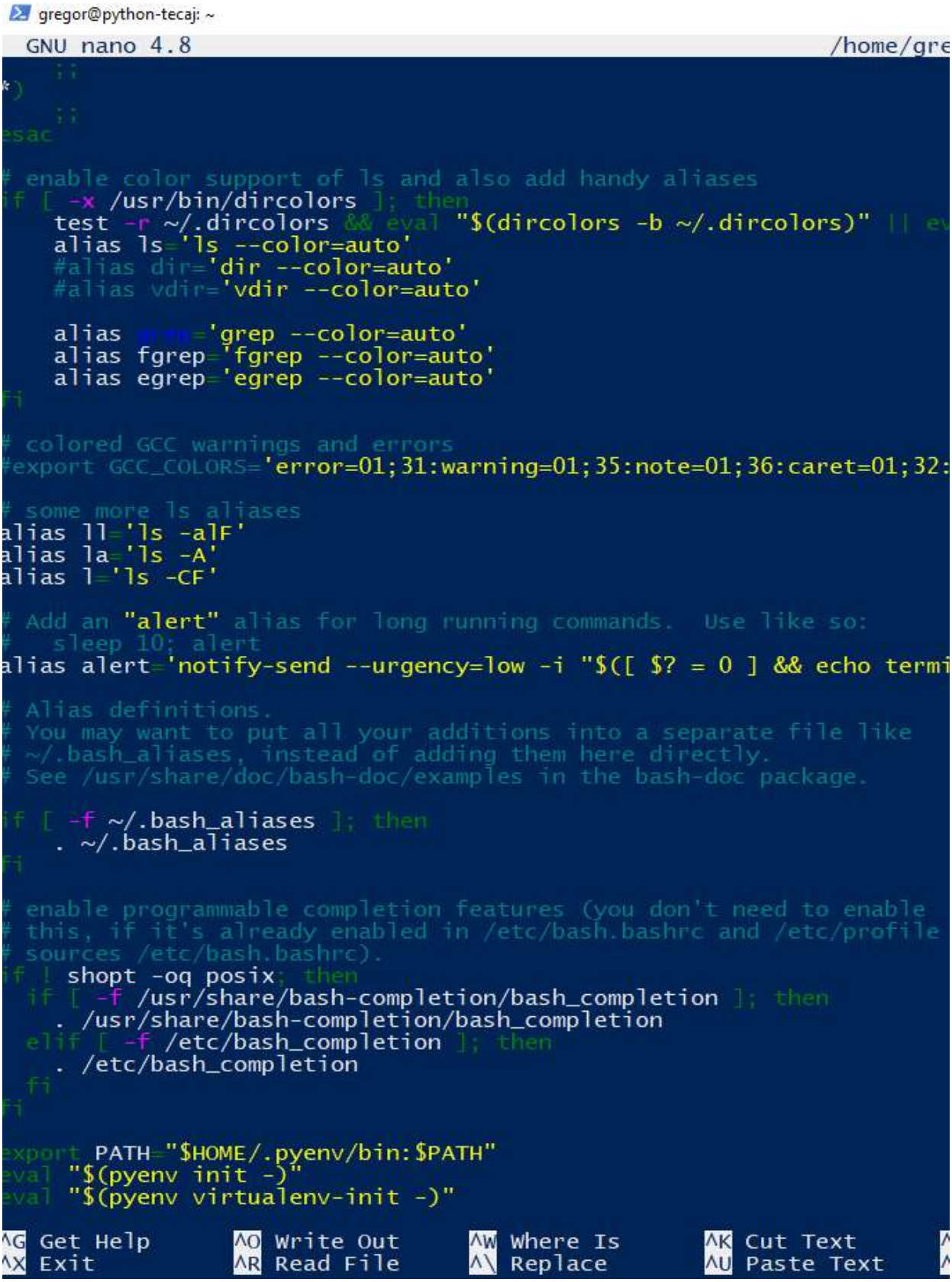
```
sudo apt-get install -y make build-essential libssl-dev zlib1g-dev libbz2-dev
libreadline-dev libsqlite3-dev wget curl llvm libncurses5-dev libncursesw5-dev
xz-utils tk-dev libffi-dev liblzma-dev python-openssl;
```

```
curl https://pyenv.run | bash;
```

```
nano ~/.bashrc;
```

Na konec datoteke prilepimo:

```
export PATH="$HOME/.pyenv/bin:$PATH"
eval "$(pyenv init -)"
eval "$(pyenv virtualenv-init -)"
```



Zaženemo:

```
exec "$SHELL"
```

Zaženemo komande:

```
pyenv install -v 3.9.0;

pyenv global 3.9.0;
```

Ustvarimo novo mapo, kjer bomo imeli gradiva.

```
mkdir tecaj;
```

In se premaknemo v to mapo.

```
cd tecaj;
```

V mapo kloniramo Git. `git clone https://github.com/leon11s/python-napredni-public.git;`

Kopiramo kloniran git repositorij v našo mapo. `cp -r python-napredni-public <nova_mapa>`

```
gregor@python-tecaj: $ mkdir tecaj
gregor@python-tecaj: $ cd tecaj
gregor@python-tecaj:~/tecaj$ ls
gregor@python-tecaj:~/tecaj$ git clone https://github.com/leon11s/python-napredni-public.git
Cloning into 'python-napredni-public'...
remote: Enumerating objects: 40, done.
remote: Counting objects: 100% (40/40), done.
remote: Compressing objects: 100% (27/27), done.
remote: Total 40 (delta 11), reused 37 (delta 8), pack-reused 0
Unpacking objects: 100% (40/40), 7.28 KiB | 677.00 KiB/s, done.
gregor@python-tecaj:~/tecaj$ ls -la
total 12
drwxrwxr-x 3 gregor gregor 4096 Nov  4 18:27 .
drwxr-xr-x 6 gregor gregor 4096 Nov  4 18:27 ..
drwxrwxr-x 6 gregor gregor 4096 Nov  4 18:27 python-napredni-public
gregor@python-tecaj:~/tecaj$ cp -r python-napredni-public moja_mapa
gregor@python-tecaj:~/tecaj$ ls -la
total 16
drwxrwxr-x 4 gregor gregor 4096 Nov  4 18:28 .
drwxr-xr-x 6 gregor gregor 4096 Nov  4 18:27 ..
drwxrwxr-x 6 gregor gregor 4096 Nov  4 18:28 moja_mapa
drwxrwxr-x 6 gregor gregor 4096 Nov  4 18:27 python-napredni-public
gregor@python-tecaj:~/tecaj$
```

Premaknemo se v novo mapo. `cd <nova_mapa>`

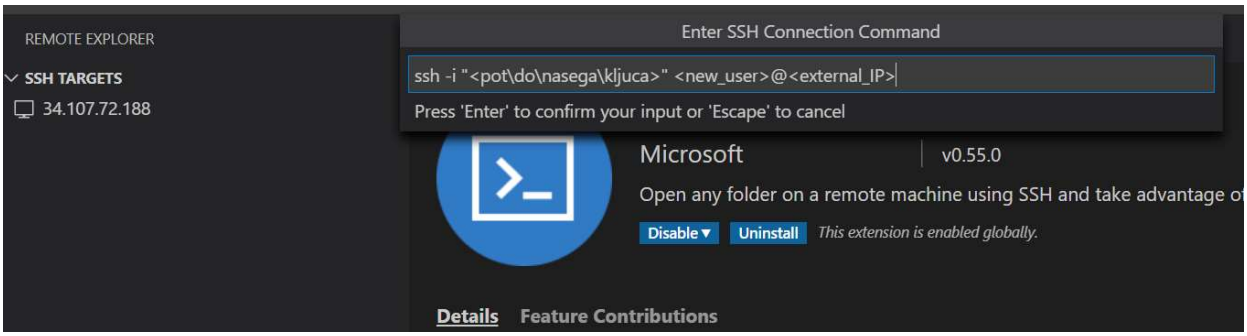
Namestimo venv: `python -m pip install virtualenv`

Ustvarimo virtualno okolje: `python -m venv .venv`

In ga zaženemo: `source .venv/bin/activate`

Upgradamo pip: `python -m pip install --upgrade pip`

Odpremo visual studio code in instaliramo Remote-SSH extension



Za ustvariti ssh ključ na windows naredimo:

```
ssh-keygen

"C:\Users\Gregor\.ssh\imeKljuca"
```