# Stredná odborná škola elektrotechnická
## Komenského 50, 010 01 Žilina

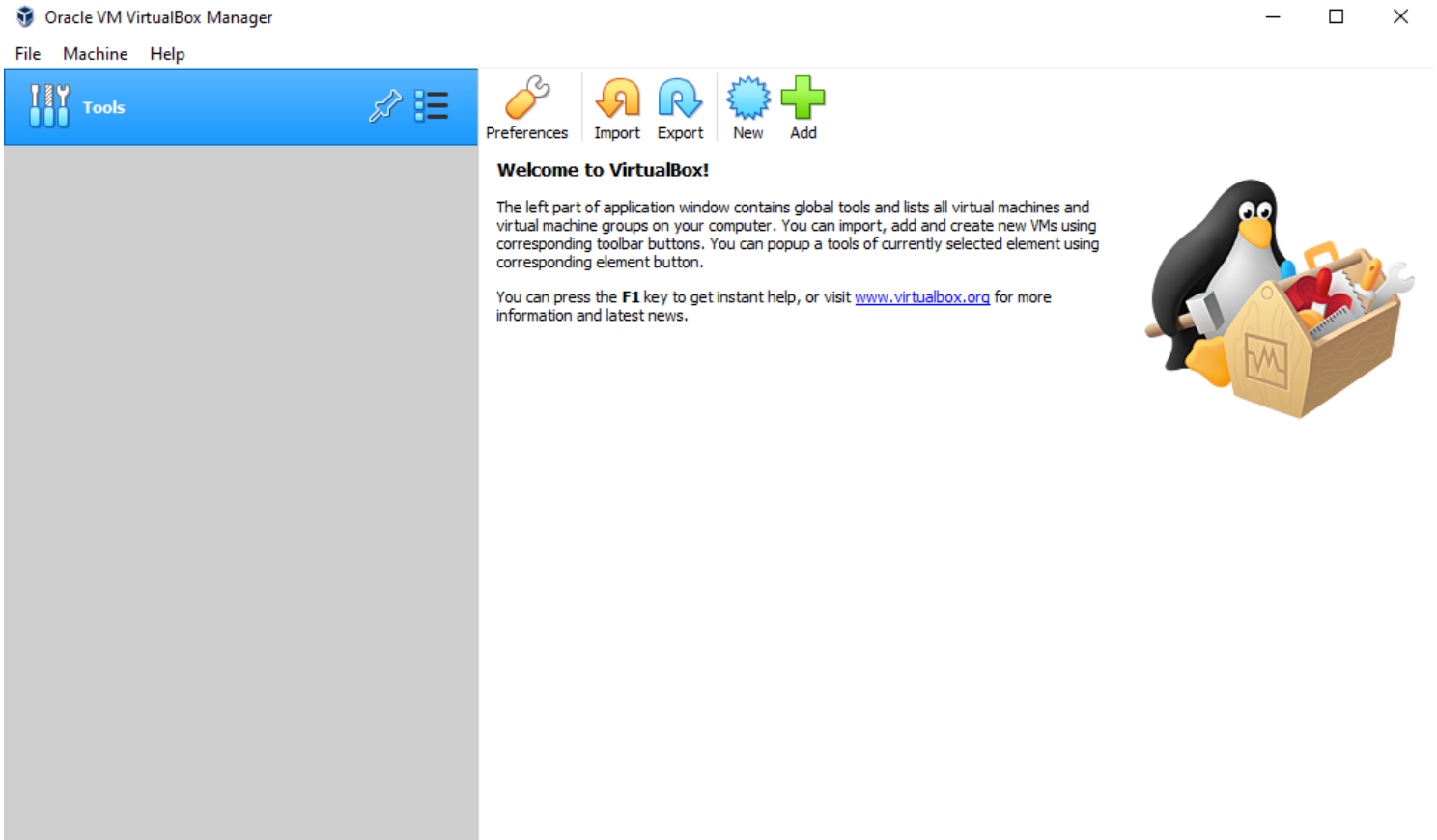# Linux Server

Samuel Hryzák
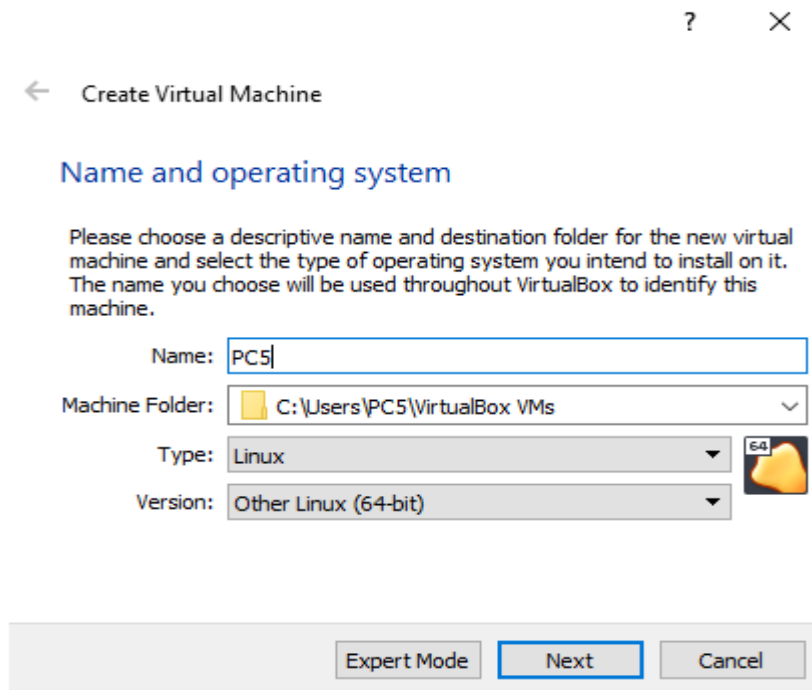MP31                                              27.04.2022

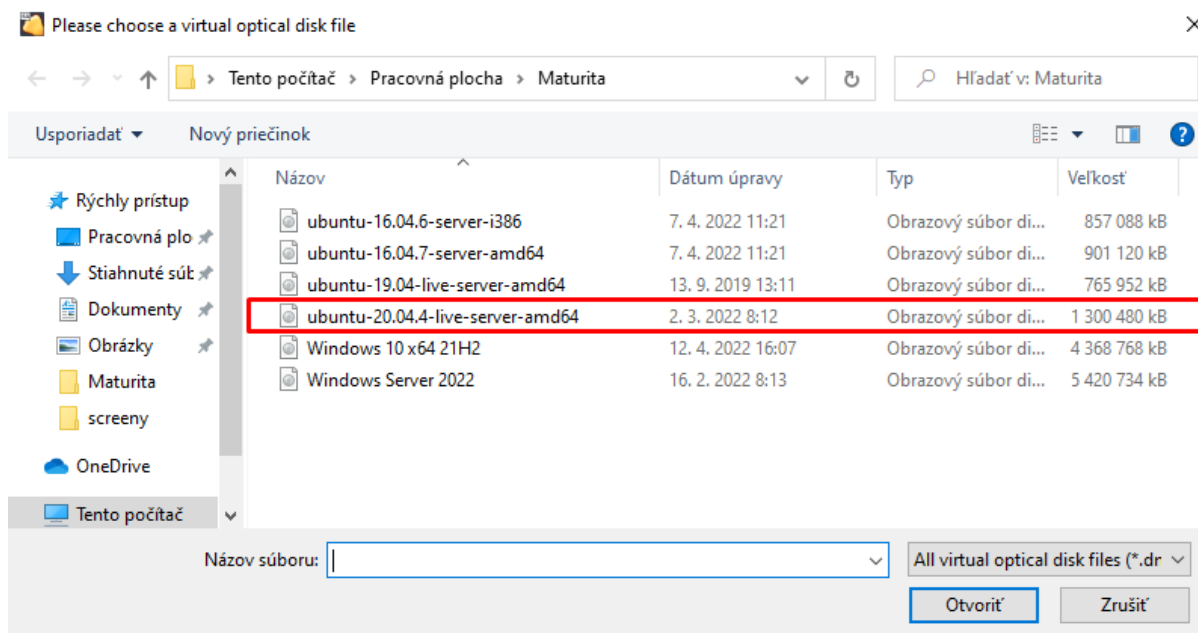# Inštalácia Linux servera vo VirtualBoxe

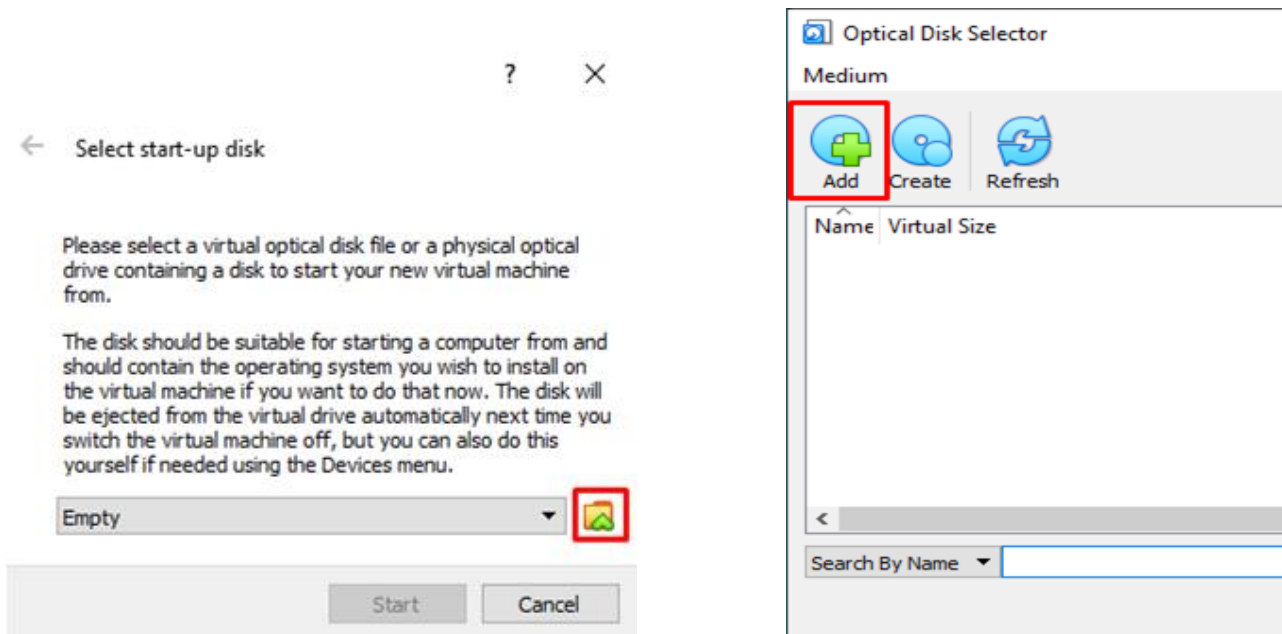Otvoríme si VirtualBox a klikneme na ikonku „New"



Vyberieme názov virtuálneho PC, typ operačného systému a verziu operačného systému

Klikneme na malú ikonku zložky, klikneme na možnosť „Add", nájdeme a vyberieme svoj iso súbor s operačným systémom

Klikneme na tlačidlo „Start" a počkáme
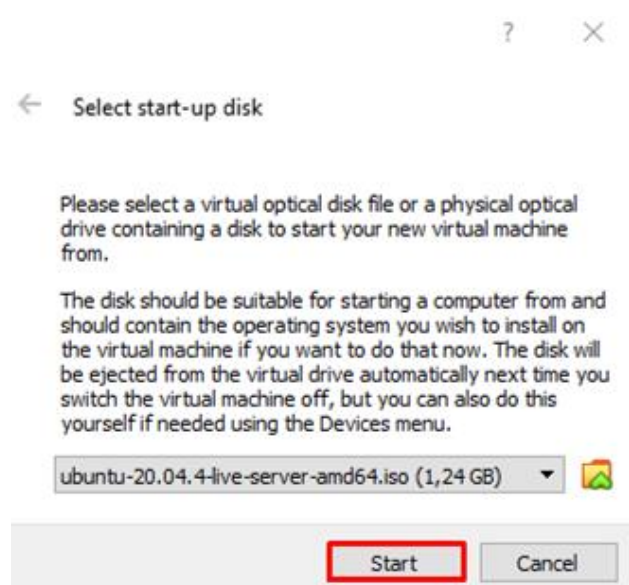


# Inštalácia Linux servera

Môžme začať so samotnou inštaláciou, ako prvý budeme vyberať jazyk, v mojom prípade angličtina

Ak chcete, môžete si aktualizovať najnovšiu verziu tlačidlom „Update to the new installer", v mojom prípade možnosť „Continue without updating" a následne stlačíme „Done".

Následných 6 snímkov iba preklíkáme tlačidlom „Done".
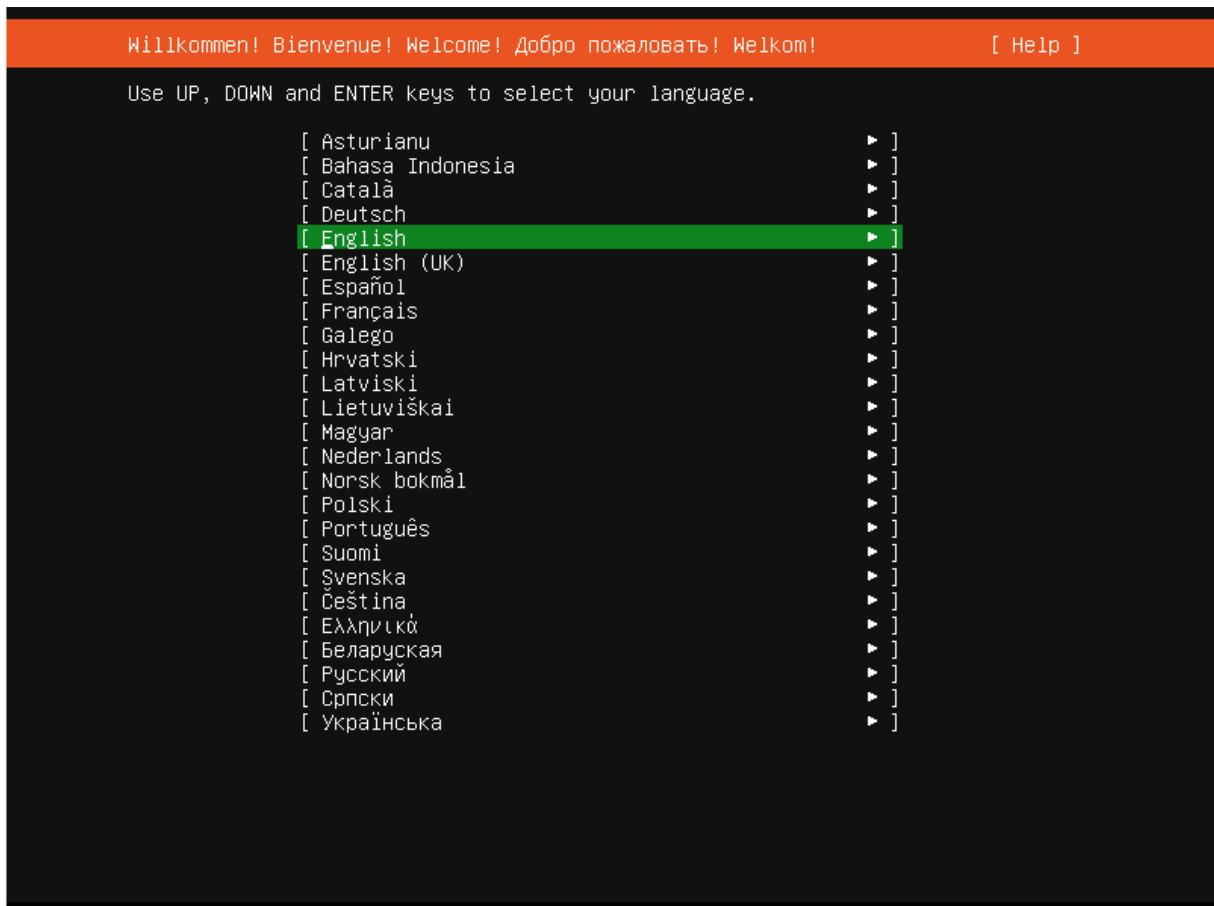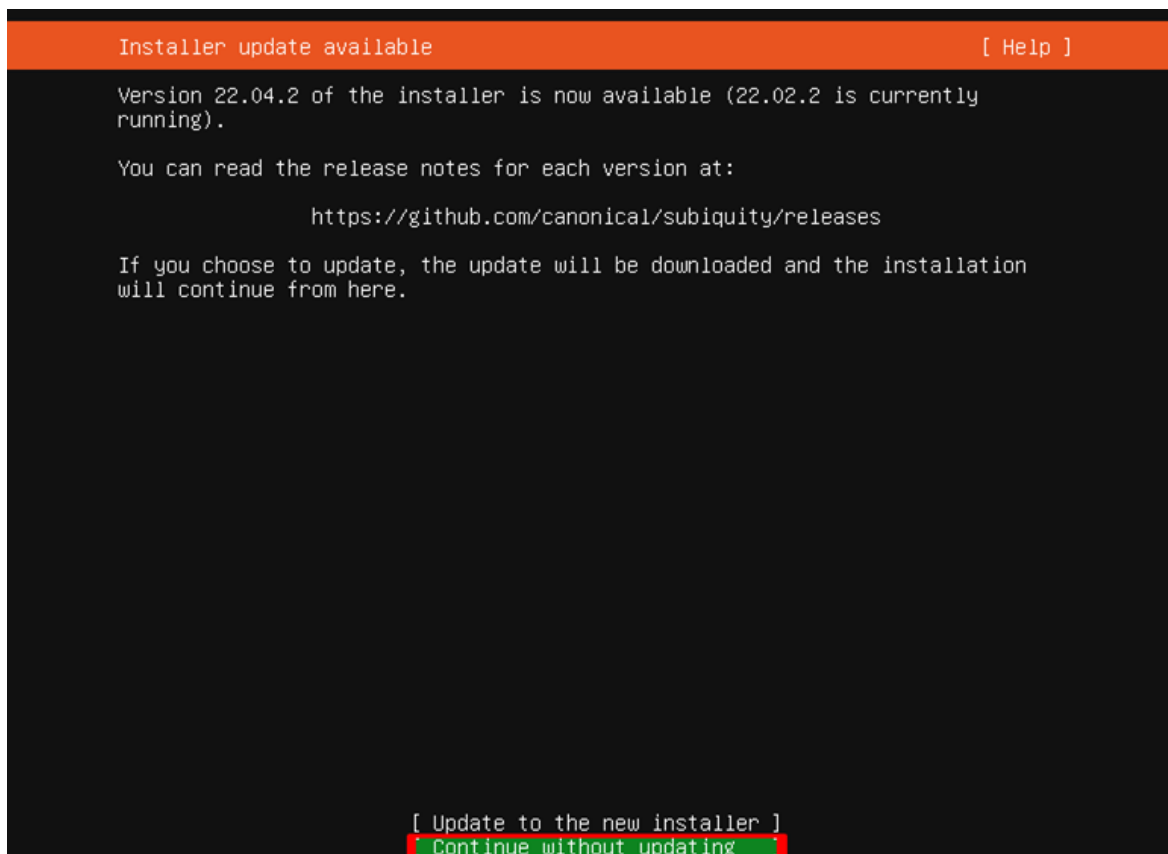
```
Configure Ubuntu archive mirror                                    [ Help ]

   If you use an alternative mirror for Ubuntu, enter its details here.

   Mirror address:  http://sk.archive.ubuntu.com/ubuntu
                    You may provide an archive mirror that will be used instead of
                    the default.
```

```
                              [ Done              ]
                              [ Back              ]
   here.

   Proxy address:
                    If you need to use a HTTP proxy to access the outside world,
                    enter the proxy information here. Otherwise, leave this blank.

                    The proxy information should be given in the standard form of
                    "http://[[user][:pass]@]host[:port]/".
```

```
                              [ Done              ]
                              [ Back              ]
```

```
Guided storage configuration                                    [ Help ]

Configure a guided storage layout, or create a custom one:

(X)  Use an entire disk

     [ VBOX_HARDDISK_VB1412a629-197bab05 local disk 20.129G ▼ ]

     [X]  Set up this disk as an LVM group

          [ ]  Encrypt the LVM group with LUKS

                    Passphrase:

                 Confirm passphrase:

( )  Custom storage layout




                         [ Done           ]
                         [ Back           ]
```

```
Storage configuration                                           [ Help ]

FILE SYSTEM SUMMARY

    MOUNT POINT     SIZE    TYPE      DEVICE TYPE
 [ /              10.000G  new ext4  new LVM logical volume      ► ]
 [ /boot           1.500G  new ext4  new partition of local disk ► ]


AVAILABLE DEVICES

    DEVICE                              TYPE              SIZE
 [ ubuntu-vg (new)                      LVM volume group  18.625G ► ]
   free space                                             8.625G  ►

 [ Create software RAID (md) ► ]
 [ Create volume group (LVM) ► ]


USED DEVICES

    DEVICE                              TYPE              SIZE
 [ ubuntu-vg (new)                      LVM volume group  18.625G ► ]
   ubuntu-lv    new, to be formatted as ext4, mounted at /  10.000G  ►

 [ VBOX_HARDDISK_VB1412a629-197bab05    local disk        20.129G ► ]
   partition 1  new, BIOS grub spacer                       1.000M  ►
   partition 2  new, to be formatted as ext4, mounted at /boot  1.500G  ►
   partition 3  new, PV of LVM volume group ubuntu-vg       18.625G  ►




                         [ Done           ]
                         [ Reset          ]
                         [ Back           ]
```

```
Storage configuration                                              [ Help ]

FILE SYSTEM SUMMARY                        - 8 -

  MOUNT POINT      SIZE    TYPE      DEVICE TYPE
[ /              10.000G  new ext4  new LVM logical volume       ▶ ]
[ /boot           1.500G  new ext4  new partition of local disk ▶ ]


AVAILABLE DEVICES

             ┌──────────── Confirm destructive action ────────────┐
             │                                                     │
             │  Selecting Continue below will begin the installation process and
             │  result in the loss of data on the disks selected to be formatted.
             │                                                     │
             │  You will not be able to return to this or a previous screen once the
             │  installation has started.                         │
             │                                                     │
             │  Are you sure you want to continue?                 │
             │                                                     │
             │                  [ No          ]                    │
             │                  [ Continue    ]                    │
             │                                                     │
             └─────────────────────────────────────────────────────┘

  partition 2  new, to be formatted as ext4, mounted at /boot      1.500G  ▶
  partition 3  new, PV of LVM volume group ubuntu-vg              18.625G  ▶



                          [ Done      ]
                          [ Reset     ]
                          [ Back      ]
```

V ďalšom snímku ideme nastavovať profil používateľa:
Vaše meno
Meno servera
Výber používateľského mena
Výber hesla
Potvrdenie hesla

Enter the username and password you will use to log in to the system. You can configure SSH access on the next screen but a password is still needed for sudo.

Your name:          Samuel Hryzak

Your server's name: ubuntu
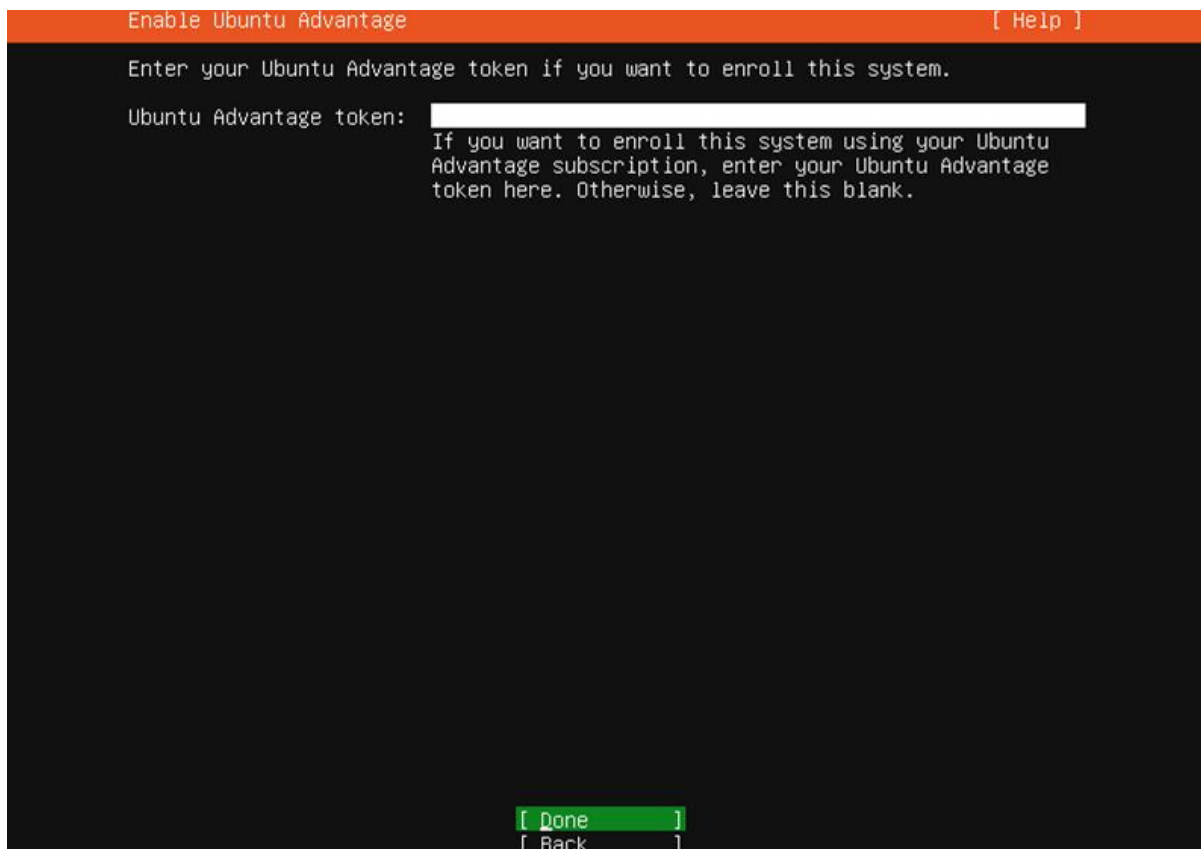                    The name it uses when it talks to other computers.

Pick a username:    ubuntu

Choose a password:  ***

Confirm your password: ***

[ Done ]

„Done“.

```
                curtin command curthooks
                    configuring apt configuring apt
                    installing missing packages
                    configuring iscsi service
                    configuring raid (mdadm) service
                    installing kernel
                    setting up swap
                    apply networking config
                    writing etc/fstab
                    configuring multipath
                    updating packages on target system
                    configuring pollinate user-agent on target
                    updating initramfs configuration
                    configuring target system bootloader
                    installing grub to target devices
              finalizing installation
                running 'curtin hook'
                    curtin command hook
              executing late commands
       final system configuration
         configuring cloud-init
         calculating extra packages to install
         downloading and installing security updates
            curtin command in-target
         restoring apt configuration
            curtin command in-target
            curtin command in-target
       subiquity/Late/run
```

```
                          [ View full log ]
                          [ Reboot Now      ]
press ENTER to see more details of the package, publisher and versions
available.

[ ] microk8s           Kubernetes for workstations and appliances           ►
[ ] nextcloud          Nextcloud Server - A safe home for all your data      ►
[ ] wekan              The open-source kanban                                ►
[ ] kata-containers    Build lightweight VMs that seamlessly plug into the c ►
[ ] docker             Docker container runtime                              ►
[ ] canonical-livepatch Canonical Livepatch Client                           ►
[ ] rocketchat-server  Rocket.Chat server                                    ►
[ ] mosquitto          Eclipse Mosquitto MQTT broker                         ►
[ ] etcd               Resilient key-value store by CoreOS                   ►
[ ] powershell         PowerShell for every system!                          ►
[ ] stress-ng          tool to load and stress a computer                    ►
[ ] sabnzbd            SABnzbd                                               ►
[ ] wormhole           get things from one computer to another, safely       ►
[ ] aws-cli            Universal Command Line Interface for Amazon Web Servi  ►
[ ] google-cloud-sdk   Google Cloud SDK                                      ►
[ ] slcli              Python based SoftLayer API Tool.                       ►
[ ] doctl              The official DigitalOcean command line interface       ►
[ ] conjure-up         Package runtime for conjure-up spells                 ►
[ ] postgresql10       PostgreSQL is a powerful, open source object-relation ►
[ ] heroku             CLI client for Heroku                                 ►
[ ] keepalived         High availability VRRP/BFD and load-balancing for Lin ►
[ ] prometheus         The Prometheus monitoring system and time series data ►
[ ] juju               Juju - a model-driven operator lifecycle manager for  ►
```

```
                          [ Done      ]
                          [ Back      ]
```

Počkáme a klikneme na „Reboot Now

Prihlásime sa pomocou údajov, ktoré sme zadali pri vytváraní profilu a následne sa musíme prihlásiť ako admin, zadáme príkaz „sudo su" a zadáme heslo.
Následne zadáme príkaz „apk install tasksel", ktorým ho nainštalujeme a potvrdíme odpoveďou „y"
Otvoríme tasksel pomocou príkazu „tasksel"

```
System information as of Wed 27 Apr 2022 06:56:15 AM UTC

  System load:   0.45          Processes:            97
  Usage of /:    23.0% of 9.78GB  Users logged in:      0
  Memory usage:  4%            IPv4 address for enp0s3: 10.0.2.15
  Swap usage:    0%

28 updates can be applied immediately.
To see these additional updates run: apt list --upgradable


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ubuntu:~$ sudo su
[sudo] password for ubuntu:
root@ubuntu:/home/ubuntu# apt install tasksel
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  laptop-detect tasksel-data
The following NEW packages will be installed:
  laptop-detect tasksel tasksel-data
0 upgraded, 3 newly installed, 0 to remove and 28 not upgraded.
Need to get 40.0 kB of archives.
After this operation, 309 kB of additional disk space will be used.
Do you want to continue? [Y/n]
```

```
ubuntu@ubuntu:~$ sudo su
[sudo] password for ubuntu:
root@ubuntu:/home/ubuntu# apt install tasksel
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  laptop-detect tasksel-data
The following NEW packages will be installed:
  laptop-detect tasksel tasksel-data
0 upgraded, 3 newly installed, 0 to remove and 28 not upgraded.
Need to get 40.0 kB of archives.
After this operation, 309 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://sk.archive.ubuntu.com/ubuntu focal/main amd64 tasksel-data all 3.34ubuntu16 [5,340 B]
Get:2 http://sk.archive.ubuntu.com/ubuntu focal/main amd64 tasksel all 3.34ubuntu16 [28.6 kB]
Get:3 http://sk.archive.ubuntu.com/ubuntu focal/main amd64 laptop-detect all 0.16 [6,016 B]
Fetched 40.0 kB in 0s (153 kB/s)
Preconfiguring packages ...
Selecting previously unselected package tasksel-data.
(Reading database ... 68946 files and directories currently installed.)
Preparing to unpack .../tasksel-data_3.34ubuntu16_all.deb ...
Unpacking tasksel-data (3.34ubuntu16) ...
Selecting previously unselected package tasksel.
Preparing to unpack .../tasksel_3.34ubuntu16_all.deb ...
Unpacking tasksel (3.34ubuntu16) ...
Selecting previously unselected package laptop-detect.
Preparing to unpack .../laptop-detect_0.16_all.deb ...
Unpacking laptop-detect (0.16) ...
Setting up laptop-detect (0.16) ...
Setting up tasksel (3.34ubuntu16) ...
Setting up tasksel-data (3.34ubuntu16) ...
Processing triggers for man-db (2.9.1-1) ...
root@ubuntu:/home/ubuntu# tasksel
```

Zaškrtneme „Lubuntu Desktop" pomocou medzerníka a pomocou klávesy TAB sa dostaneme na tlačidlo"Ok" a dáme enter a počkáme.
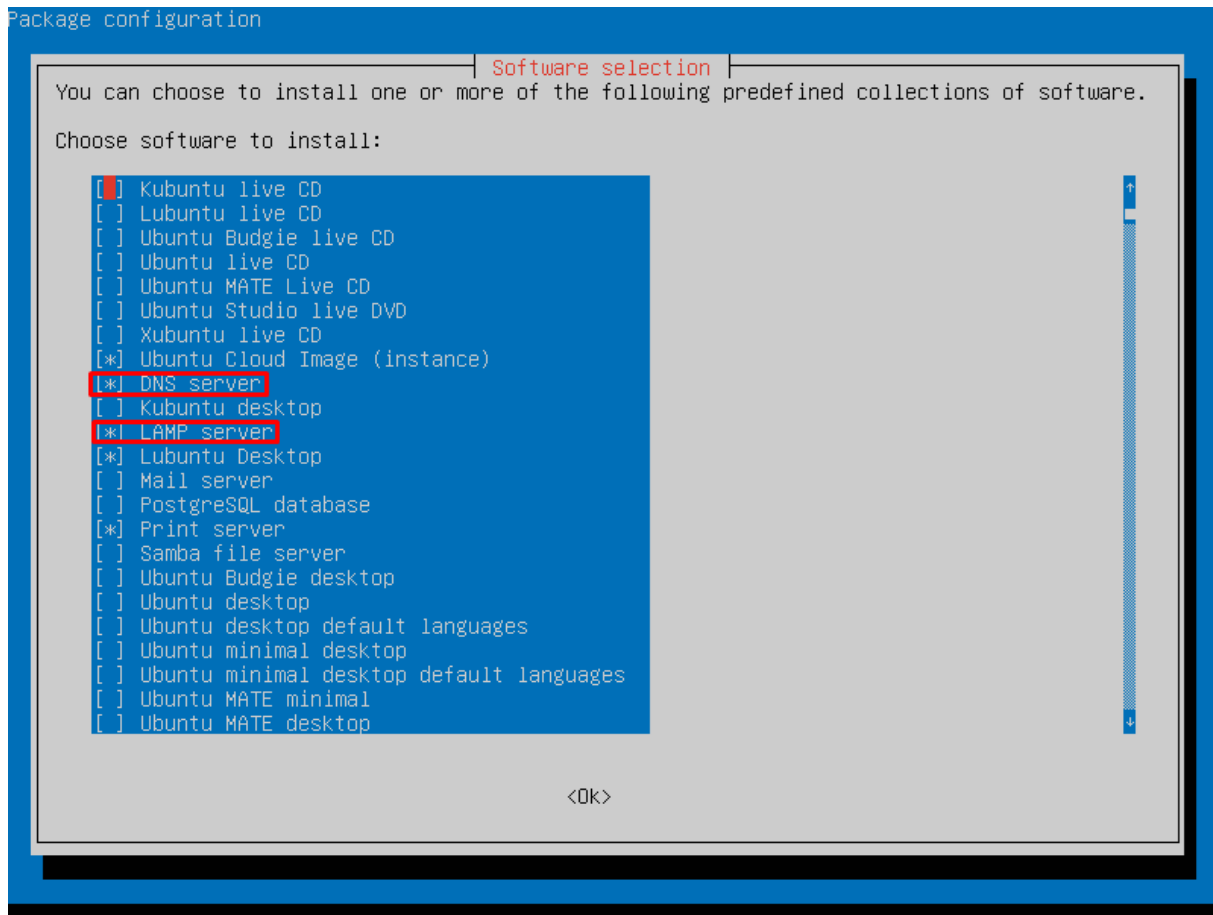Po úspešnej inštalácií napíšeme reboot.
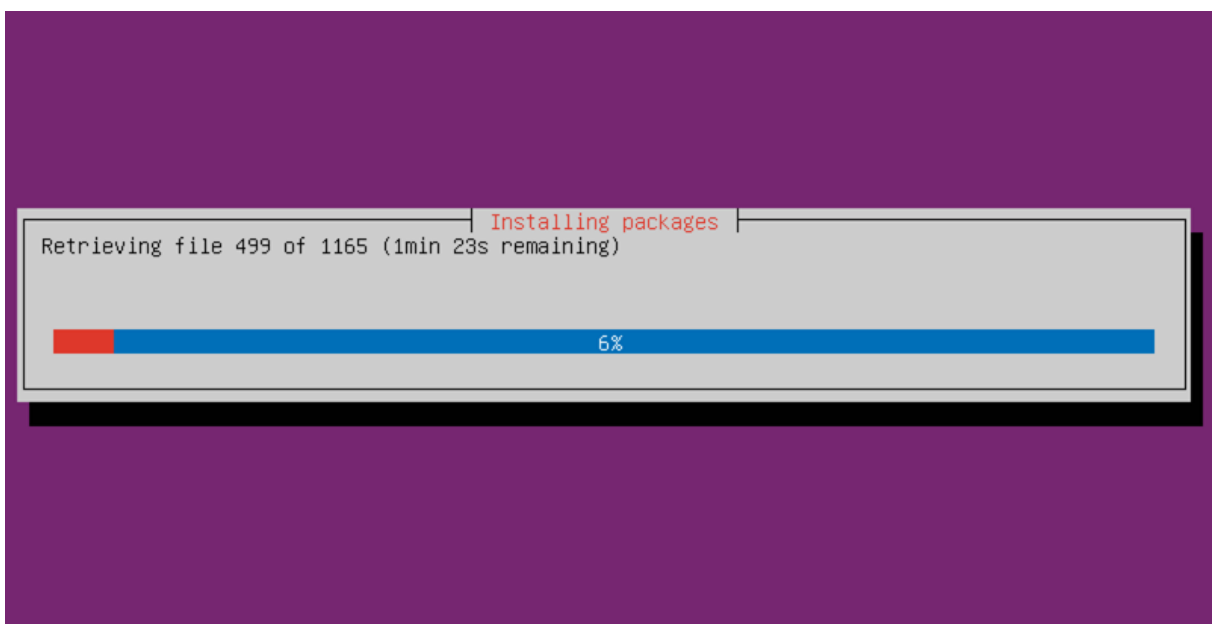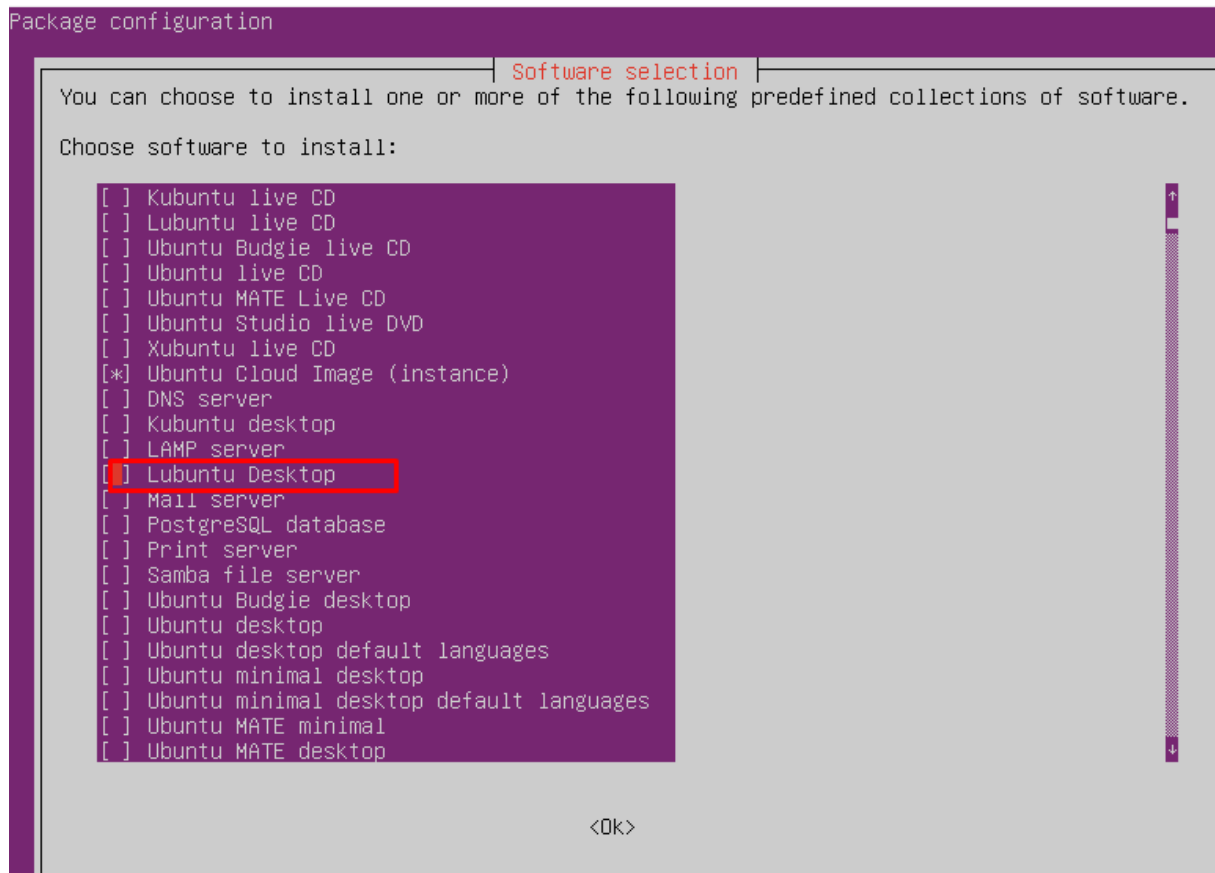
Prihlásime sa a dáme „Upgrade" a počkáme
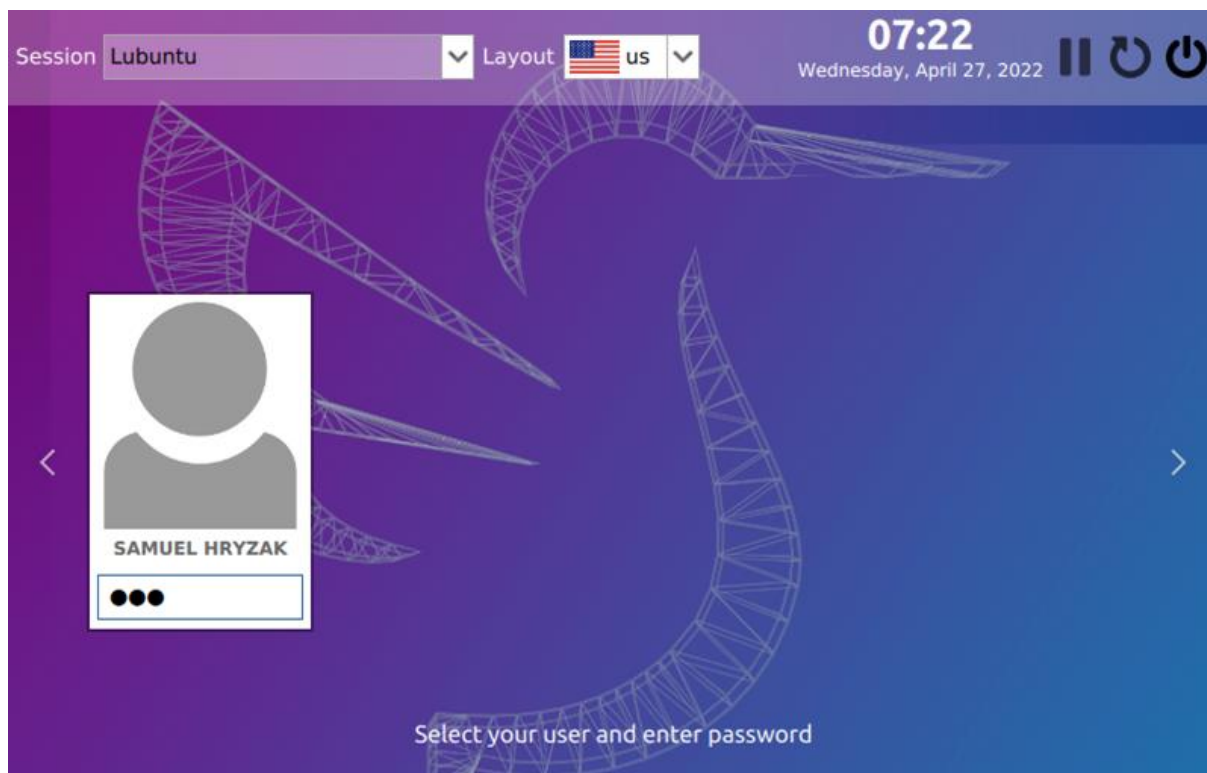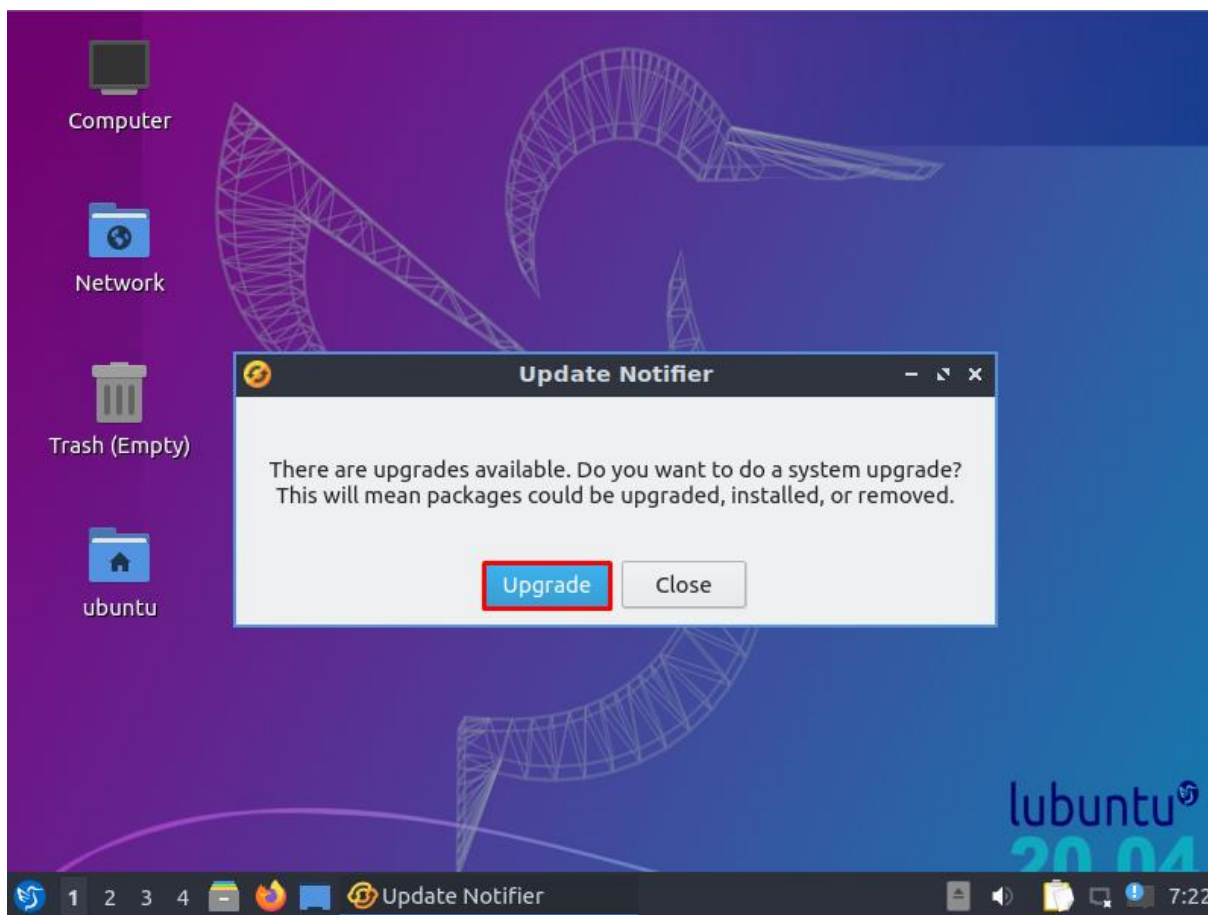
## Inštalácia DNS, LAMP a SSH

Pomocou klávesovej skratky Ctrl+Alt+F2 sa dostaneme do cmd, v ktorom sa znova prihlásime, napíšeme príkaz „sudo su" aby sme sa prihlásili ako admin a potom pomocou príkazu „tasksel" spustíme tasksel a nainštalujeme DNS Server, LAMP Server a OpenSSH

Následne si otvoríme webový prehliadač, pôjdeme na adresu
„https://www.webmin.com/deb.html", nájdeme tam 3 príkazy.
Pomocou klávesovej skratky Ctrl+Alt+T sa dostaneme do príkazového riadku, do ktorého po
jednom tieto príkazy zadáme (musíme byť prihlásený ako admin, takže opäť príkaz „sudo
su")
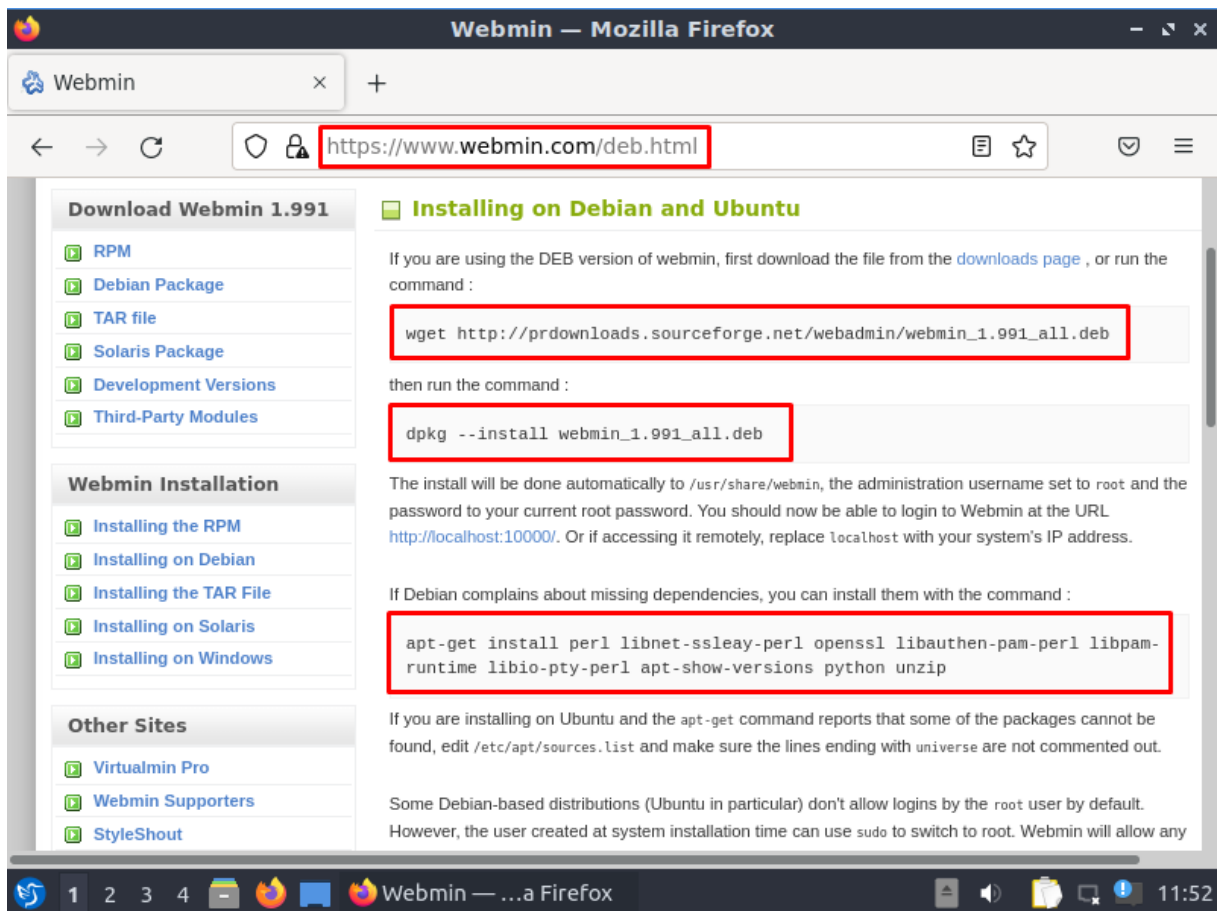
Po vložení všetkých troch príkazov sa môžeme prihlásiť na stránke, cez link, ktorý nám ukáže v príkazovom riadku, klikneme pravým tlačidlom a dáme „Open link"

Po otvorení linku klikneme na „Advanced" a následne „Accept the Risk and Continue"