

Лабораторная работа №1

Установка и конфигурация операционной системы на виртуальную машину

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2025-02-21

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Информация

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Цели и задачи

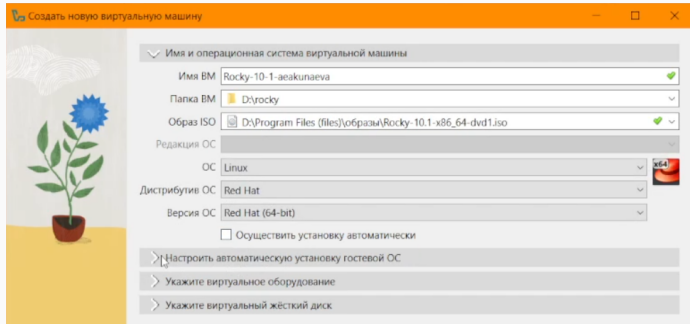
- Целью данной работы является приобретение практических навыков установки операционной системы на виртуальную машину, настройки минимально необходимых для дальнейшей работы сервисов.
1. Установить дистрибутив Rocky 10.1 на виртуальную машину.

Материалы и методы

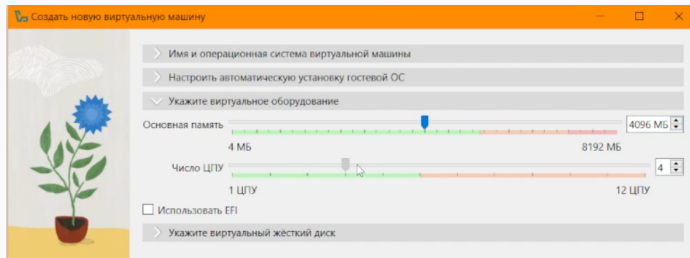
- Linux (дистрибутив Rocky 10.1)
- Oracle VirtualBox

Выполнение лабораторной работы

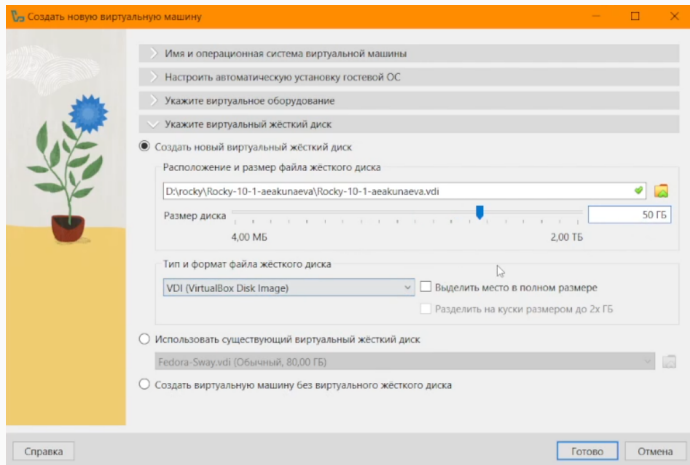
Создание виртуальной машины



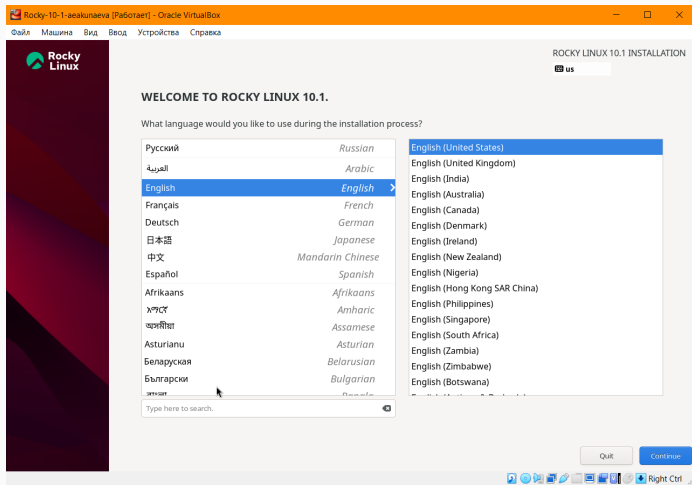
Задание параметров ОС



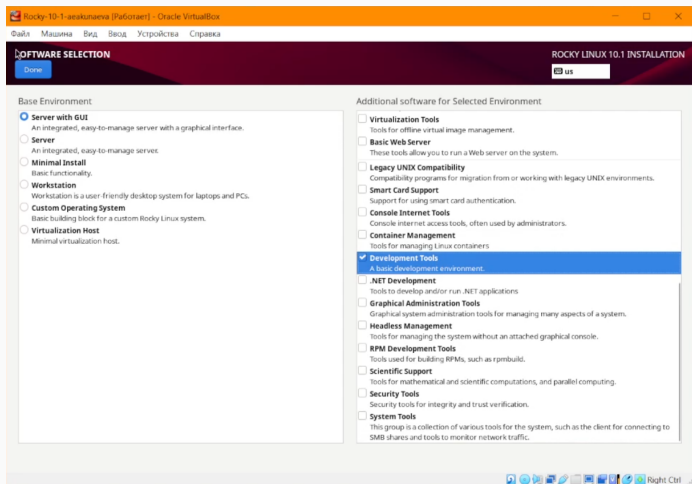
Создание виртуального жёсткого диска



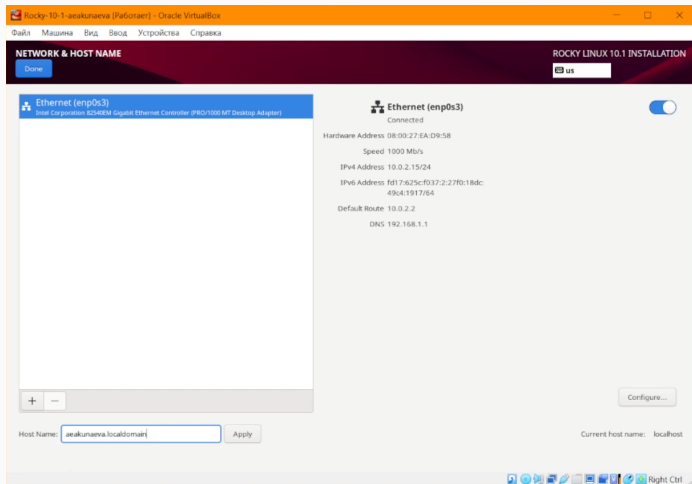
Установка основного языка системы



Секция Software Selection



Секция Network & Host Name



Секция Create User/Root Account

Rocky-10-1-aekunaeva [Работает] - Oracle VirtualBox

Файл Машина Вид Ввод Устройства Справка

CREATE USER ROCKY LINUX 10.1 INSTALLATION

Done us

Full name

User name

☒ Add administrative privileges to this user account (wheel group membership)

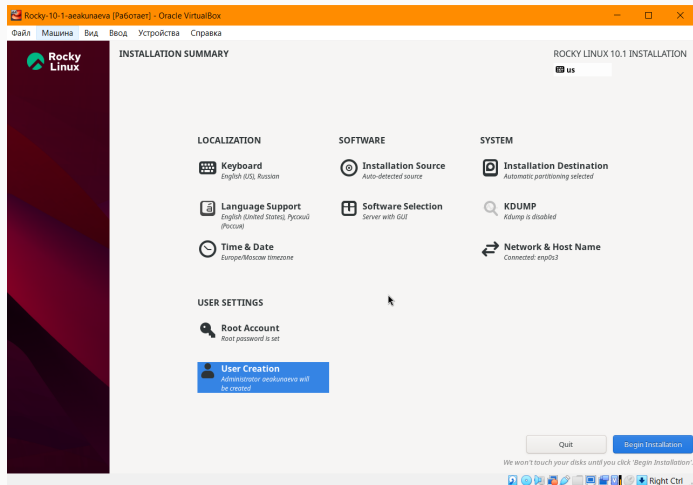
☒ Require a password to use this account

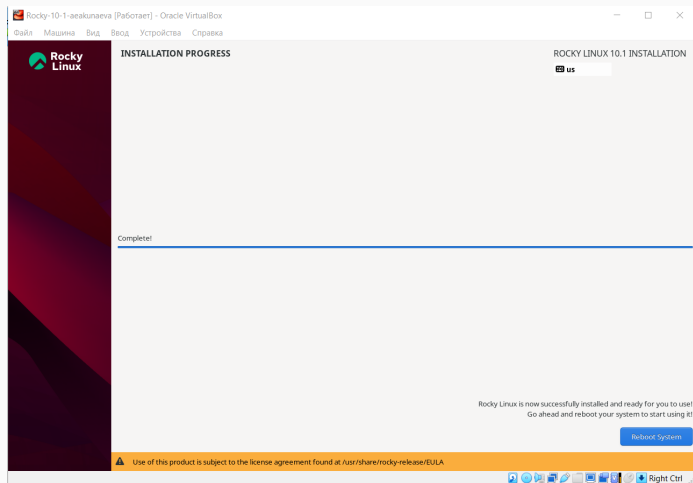
Password Too short

Confirm password

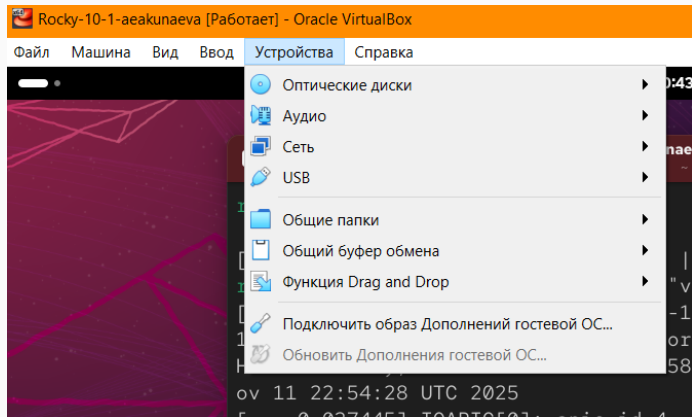
Advanced...

Общие настройки системы





Подключение образа Дополнений гостевой ОС



Домашнее задание: dmesg | less

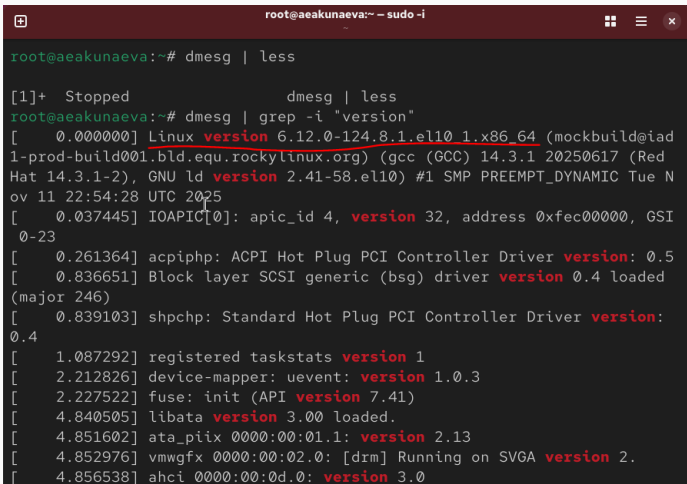
dmesg | less

```
root@aeakunaeva:~ -- sudo -i

[    0.000000] Linux version 6.12.0-124.8.1.el10_1.x86_64 (mockbuild@iad
1-prod-build001.bld.equ.rockylinux.org) (gcc (GCC) 14.3.1 20250617 (Red
Hat 14.3.1-2), GNU ld version 2.41-58.el10) #1 SMP PREEMPT_DYNAMIC Tue N
ov 11 22:54:28 UTC 2025
[    0.000000] Command line: BOOT_IMAGE=(hd0,gpt2)/vmlinuz-0-rescue-9f9f
ef444fae48829267e4939c0ecffe root=/dev/mapper/rl-root ro resume=UUID=224
41bfe-0d78-4438-9080-10bf6eaae6f5 rd.lvm.lv=rl/root rd.lvm.lv=rl/swap rh
gb quiet
[    0.000000] [Firmware Bug]: TSC doesn't count with P0 frequency!
[    0.000000] BIOS-provided physical RAM map:
[    0.000000] BIOS-e820: [mem 0x0000000000000000-0x000000000009fbff] us
able
[    0.000000] BIOS-e820: [mem 0x000000000009fc00-0x000000000009ffff] re
served
[    0.000000] BIOS-e820: [mem 0x00000000000f0000-0x00000000000fffff] re
served
[    0.000000] BIOS-e820: [mem 0x0000000000100000-0x0000000000dfffffff] us
able
[    0.000000] BIOS-e820: [mem 0x0000000000dfff0000-0x0000000000dfffffff] AC
PI data
[    0.000000] BIOS-e820: [mem 0x00000000fec00000-0x00000000fec00fff] re
:
```

Домашнее задание №1

```
dmesg | grep -i "version"
```



```
root@aeakunaeva:~# sudo -i
root@aeakunaeva:~# dmesg | less
[1]+  Stopped                  dmesg | less
root@aeakunaeva:~# dmesg | grep -i "version"
[  0.000000] Linux version 6.12.0-124.8.1.el10 1.x86_64 (mockbuild@iad
1-prod-build001.bld.equ.rockylinux.org) (gcc (GCC) 14.3.1 20250617 (Red
Hat 14.3.1-2), GNU ld version 2.41-58.el10) #1 SMP PREEMPT_DYNAMIC Tue N
ov 11 22:54:28 UTC 2025
[  0.037445] IOAPIC[0]: apic_id 4, version 32, address 0xfec00000, GSI
0-23
[  0.261364] acpiphp: ACPI Hot Plug PCI Controller Driver version: 0.5
[  0.836651] Block layer SCSI generic (bsg) driver version 0.4 loaded
(major 246)
[  0.839103] shpchp: Standard Hot Plug PCI Controller Driver version:
0.4
[  1.087292] registered taskstats version 1
[  2.212826] device-mapper: uevent: version 1.0.3
[  2.227522] fuse: init (API version 7.41)
[  4.840505] libata version 3.00 loaded.
[  4.851602] ata_piix 0000:00:01.1: version 2.13
[  4.852976] vmwgfx 0000:00:02.0: [drm] Running on SVGA version 2.
[  4.856538] ahci 0000:00:0d.0: version 3.0
```

```
dmesg | grep -i "processor"
```

```
root@aeakunaeva:~# dmesg | grep -i "processor"
[ 0.000012] tsc: Detected 3393.626 MHz processor
[ 0.243522] smpboot: CPU0: AMD Ryzen 5 2600 Six-Core Processor (famil
y: 0x17, model: 0x8, stepping: 0x2)
[ 0.254243] smpboot: Total of 4 processors activated (27149.00 BogoMI
PS)
[ 0.263304] ACPI: Added _OSI(Processor Device)
[ 0.263304] ACPI: Added _OSI(Processor Aggregator Device)
```

```
dmesg | grep -i "memory"
```

```
root@aeakunaeva:~# dmesg | grep -i "memory"
[ 0.000000] DMI: Memory slots populated: 0/0
[ 0.006775] ACPI: Reserving FACP table memory at [mem 0xdfff00f0-0xdfff01e3]
[ 0.006776] ACPI: Reserving DSDT table memory at [mem 0xdfff0310-0xdfff2662]
[ 0.006777] ACPI: Reserving FACS table memory at [mem 0xdfff0200-0xdfff023f]
```

Домашнее задание №4.2

```
[ 0.140082] Freeing SMP alternatives memory: 40K
[ 0.257512] Memory: 3829168K/4193848K available (18432K kernel code,
5804K rwddata, 14268K rodata, 4344K init, 6696K bss, 360280K reserved, 0K
cma-reserved)
[ 0.258251] x86/mm: Memory block size: 128MB
[ 0.799813] Freeing initrd memory: 162720K
[ 0.841653] Non-volatile memory driver v1.3
[ 1.190889] Freeing unused decrypted memory: 2028K
[ 1.191995] Freeing unused kernel image (initmem) memory: 4344K
[ 1.192432] Freeing unused kernel image (rodata/data gap) memory: 68K
[ 4.853087] vmwgfx 0000:00:02.0: [drm] Legacy memory limits: VRAM = 1
6384 KiB, FIFO = 2048 KiB, surface = 501904 KiB
[ 4.853097] vmwgfx 0000:00:02.0: [drm] Maximum display memory size is
16384 KiB
```

```
dmesg | grep -i "hypervisor"
```

```
root@aeakunaeva:~# dmesg | grep -i "hypervisor"  
[ 0.000000] Hypervisor detected: KVM  
[ 4.852986] vmwgfx 0000:00:02.0: [drm] *ERROR* vmwgfx seems to be running on an unsupported hypervisor.
```



```
dmesg | grep -i "filesystem"
```

```
root@aeakunaeva:~# dmesg | grep -i "filesystem"
[ 6.441115] XFS (dm-0): Mounting V5 Filesystem b96e4268-0f6b-434f-a89
2-44c53ae31157
[ 22.925844] XFS (sda2): Mounting V5 Filesystem 6cb4a6e9-36f6-4691-8ad
7-87ee2c4f918f
```

Выводы

Я приобрела практические навыки установки операционной системы на виртуальную машину, настройки минимально необходимых для дальнейшей работы сервисов.