

# Отчёт по лабораторной работе №1

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Мухин Тимофей Владимирович

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Российский Университет Дружбы Народов

## Цель работы

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Целью данной работы является приобретение практических навыков установки операционной системы на виртуальную машину, настройки минимально необходимых для дальнейшей работы сервисов.

## Выполнение работы

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## 1. Устанавливаем VirtualBox.



The screenshot shows the VirtualBox website homepage. At the top left is the VirtualBox logo, a blue cube with 'VirtualBox' text. To its right is the 'VirtualBox' title in large blue font, followed by the subtitle 'Welcome to VirtualBox.org!'. Below the title is a paragraph of introductory text about VirtualBox as a powerful x86 and AMD64/Intel64 virtualization product. To the left of the main content is a vertical navigation menu with links: 'About', 'Screenshots', 'Downloads', 'Documentation', 'End-user docs', 'Technical docs', 'Contribute', and 'Community'. Below the introductory text is a large blue button with white text that says 'Download VirtualBox 7.0'. Underneath the button is a section titled 'Hot picks:' followed by three bullet points: 'Pre-built virtual machines for developers at Oracle Tech Network', 'HyperBox Open-source Virtual Infrastructure Manager - project site', and 'phpVirtualBox AJAX web interface - project site'. At the bottom center is the Oracle logo, and below it are links for 'Contact', 'Privacy policy', and 'Terms of Use'.

**VirtualBox**

Welcome to VirtualBox.org!

VirtualBox is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use. Not only is VirtualBox an extremely feature rich, high performance product for enterprise customers, it is also the only professional solution that is freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 3. See "About VirtualBox" for an introduction.

Presently, VirtualBox runs on Windows, Linux, macOS, and Solaris hosts and supports a large number of guest operating systems including but not limited to Windows (NT 4.0, 2000, XP, Server 2003, Vista, Windows 7, Windows 8, Windows 10), DOS/Windows 3.x, Linux (2.4, 2.6, 3.x and 4.x), Solaris and OpenSolaris, OS/2, and OpenBSD.

VirtualBox is being actively developed with frequent releases and has an ever-growing list of features, supported guest operating systems and platforms it runs on. VirtualBox is a community effort backed by a dedicated company: everyone is encouraged to contribute while Oracle ensures the product always meets professional quality criteria.

**Download VirtualBox 7.0**

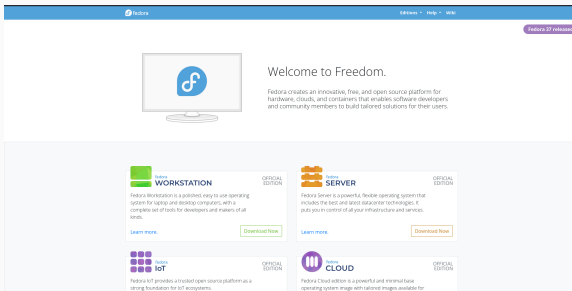
**Hot picks:**

- Pre-built virtual machines for developers at [Oracle Tech Network](#)
- **HyperBox** Open-source Virtual Infrastructure Manager [- project site](#)
- **phpVirtualBox** AJAX web interface [- project site](#)

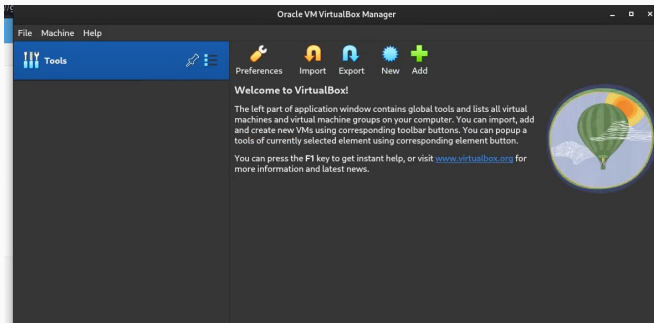
**ORACLE**

[Contact](#) - [Privacy policy](#) - [Terms of Use](#)

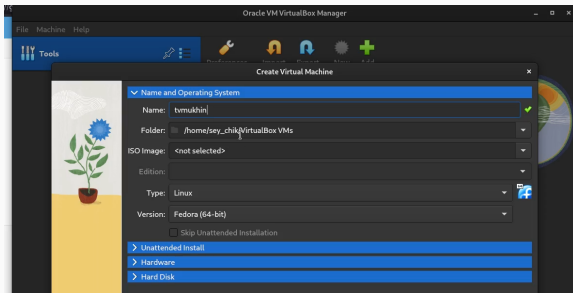
## 2. Скачиваем установочный образ дистрибутива Fedora с [getfedora.org](https://getfedora.org).



## 3. Создаем новую виртуальную машину в virtualbox.

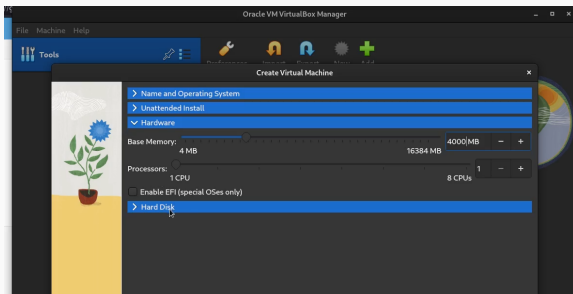


4. Указываем имя виртуальной машины (логин в дисплейном классе), тип операционной системы — Linux, Fedora.

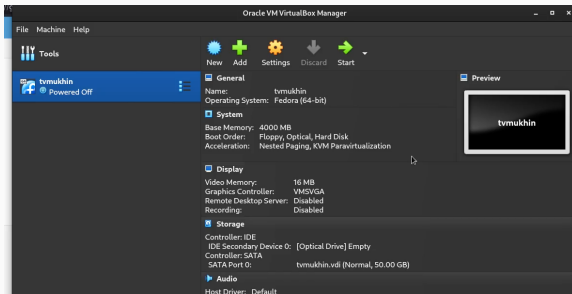




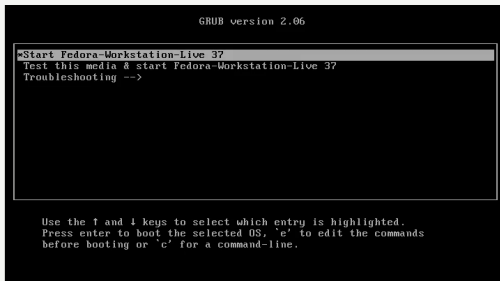
5. Указываем размер основной памяти виртуальной машины — от 2048 МБ. Задаем конфигурацию жёсткого диска — загрузочный, VDI (VirtualBox Disk Image), динамический виртуальный диск.



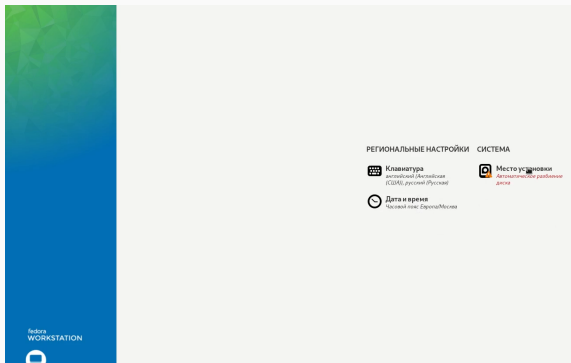
## 6. Добавляем новый привод оптических дисков и выбираем образ Fedora.



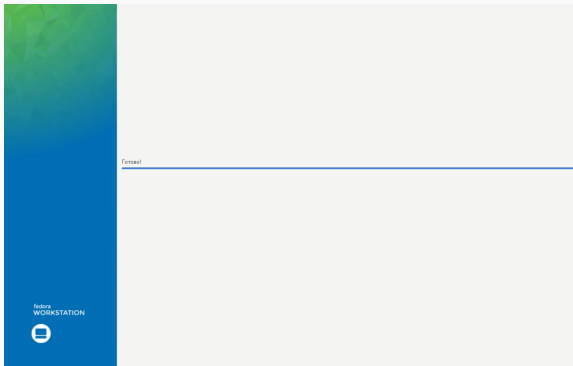
## 7.1. Запускаем виртуальную машину и устанавливаем ОС



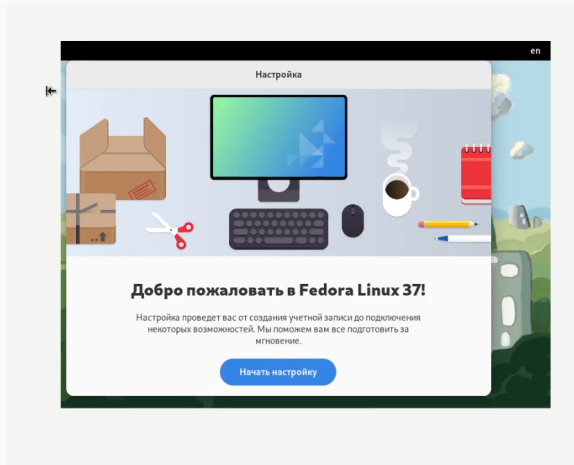
## 7.2. Запускаем виртуальную машину и устанавливаем ОС



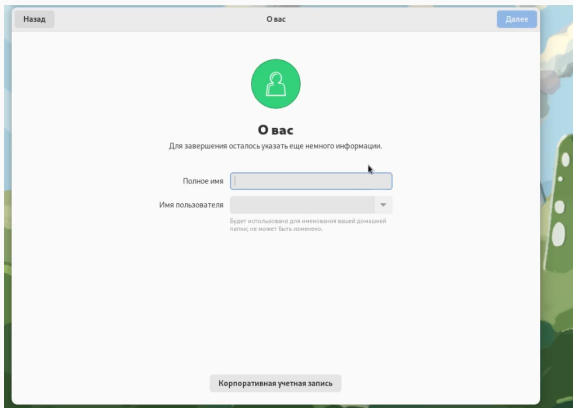
## 7.3. Запускаем виртуальную машину и устанавливаем ОС



8. Запускаем установленную ОС, извлекаем iso-образ, если это не произошло автоматически

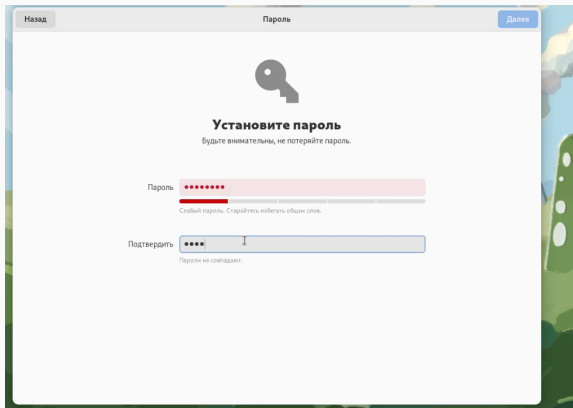


9.1. Выполняем основные настройки. Создаем пользователя, задаем пароль.



The screenshot shows a web application window with a light gray header. On the left is a button labeled "Назад" (Back) and on the right is a button labeled "Далее" (Next). The main content area has a white background. At the top center is a green circular icon containing a white person silhouette. Below it is the heading "О вас" (About you) in bold. A line of text follows: "Для завершения осталось указать еще немного информации." (To complete, you still need to specify a little more information). There are two input fields: the first is labeled "Полное имя" (Full name) and is a simple text box; the second is labeled "Имя пользователя" (Username) and is a dropdown menu. Below the username field is a small note: "Будет использовано для именования вашей домашней папки; не может быть изменено." (Will be used for naming your home folder; cannot be changed). At the bottom center is a button labeled "Корпоративная учетная запись" (Corporate account).

9.2. Выполняем основные настройки. Создаем пользователя, задаем пароль.



The screenshot shows a web application window with a title bar containing 'Назад' (Back) and 'Далее' (Next) buttons. The main content area is titled 'Пароль' (Password) and features a large key icon. Below the icon, the text 'Установите пароль' (Set password) is displayed, followed by the instruction 'Будьте внимательны, не потеряйте пароль.' (Be careful, do not lose your password.).

There are two password input fields:

- The first field is labeled 'Пароль' (Password) and contains a red bar with 10 dots, indicating a weak password. Below it, the text 'Слабый пароль. Старайтесь избегать общих слов.' (Weak password. Try to avoid common words.) is shown.
- The second field is labeled 'Подтвердить' (Confirm) and contains a grey bar with 10 dots. Below it, the text 'Пароли не совпадают.' (Passwords do not match.) is shown.



## Выполнение работы

10. В окне терминала проанализируем последовательность загрузки системы, выполнив команду `dmesg`. Просматриваем вывод команды. Получите следующую информацию: Версия ядра Linux, частота процессора, модель процессор, объём доступной оперативной памяти

```
tvmukhin@fedora:~ — less
tvmukhin@fedora:~ — sudo dfn up ... tv mukhin@fedora:~ — less

[ 0.000000] Linux version 6.0.7-301.fc37.x86_64 (mockbuild@bkernel01.iad2.fedoraproject.org) (gcc (GCC) 12.2.1 20220819 (Red Hat 12.2.1-2), GNU ld version 2.38-2.fc37) #1 SMP PREEMPT_DYNAMIC Fri Nov 4 18:35:48 UTC 2022
[ 0.000000] Command line: BOOT_IMAGE=(hd,gpt2)/vmlinuz-6.0.7-301.fc37.x86_64 root=UUID=9cb69583-0bc2-4405-b6c7-e09808ced6d6 ro rootflags=subvol=root rhgb quiet
[ 0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point registers'
[ 0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
[ 0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
[ 0.000000] x86/fpu: xstate_offset[2]: 576, xstate_sizes[2]: 256
[ 0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 bytes, using 'standard' format.
[ 0.000000] signal: max sigframe size: 1776
[ 0.000000] BIOS-provided physical RAM map:
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000009bfb] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000009fc0-0x00000000000009ffff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000000f0000-0x000000000000ffff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000001000000-0x000000000dffff] usable
[ 0.000000] BIOS-e820: [mem 0x000000000dffff000-0x000000000dffffff] ACPI data
[ 0.000000] BIOS-e820: [mem 0x00000000fc000000-0x00000000fc0000ff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fee00000-0x00000000fee00fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fffc0000-0x00000000ffffffffff] reserved
```

## Вывод

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