Software Installation

BLG413E – System Programming, Practice Session 1

Different Ways of Installing Linux

Installing on hard drive:

- Linux distribution is installed on PC's harddisk.
- High performance usage.
- Installation alongside with another Operating System (such as Windows).
  - https://help.ubuntu.com/community/WindowsDualBoot

Different Ways of Installing Linux

Installing on a usb flash drive:

- Linux distribution is installed on a usb flash drive using a tool such as Universal USB installer
  - http://www.pendrivelinux.com/universal-usb-installer-easy-as-1-2-3/

Different Ways of Installing Linux

- **Installing on a virtual machine:**
  - Linux distribution is installed on a virtual machine in another Operating System (such as Windows).
  - Virtualization tools such as VirtualBox are used for this purpose.

Operating System Used in This Course

- Course material was tested on Lubuntu 14.04.5 LTS “Trusty Tahr” release, 32 bit version. Although most of the practical information in the material can be applied to any Ubuntu-based system, you might encounter problems when working on a different version.

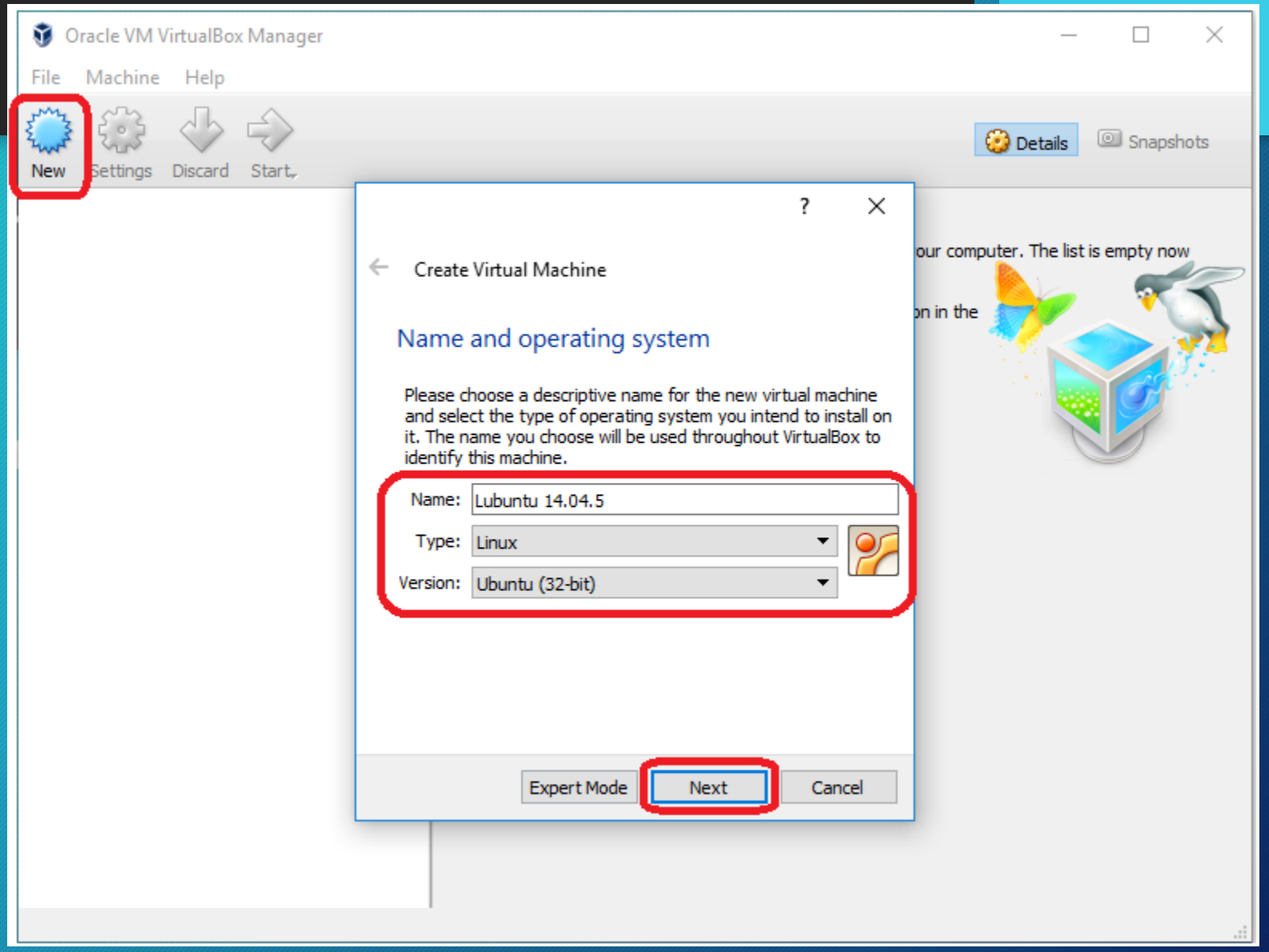
Installing Lubuntu using VirtualBox

1. Download and install VirtualBox compatible with the operating system you use (Windows, Mac OS etc.):
   - https://www.virtualbox.org/wiki/Downloads

2. Download Lubuntu 14.04.5 LTS (Trusty Tahr) 32-bit PC (i386) desktop image:
   - http://cdimage.ubuntu.com/lubuntu/releases/14.04.5/release/

Installing Lubuntu using VirtualBox

3. Create a virtual machine using VirtualBox



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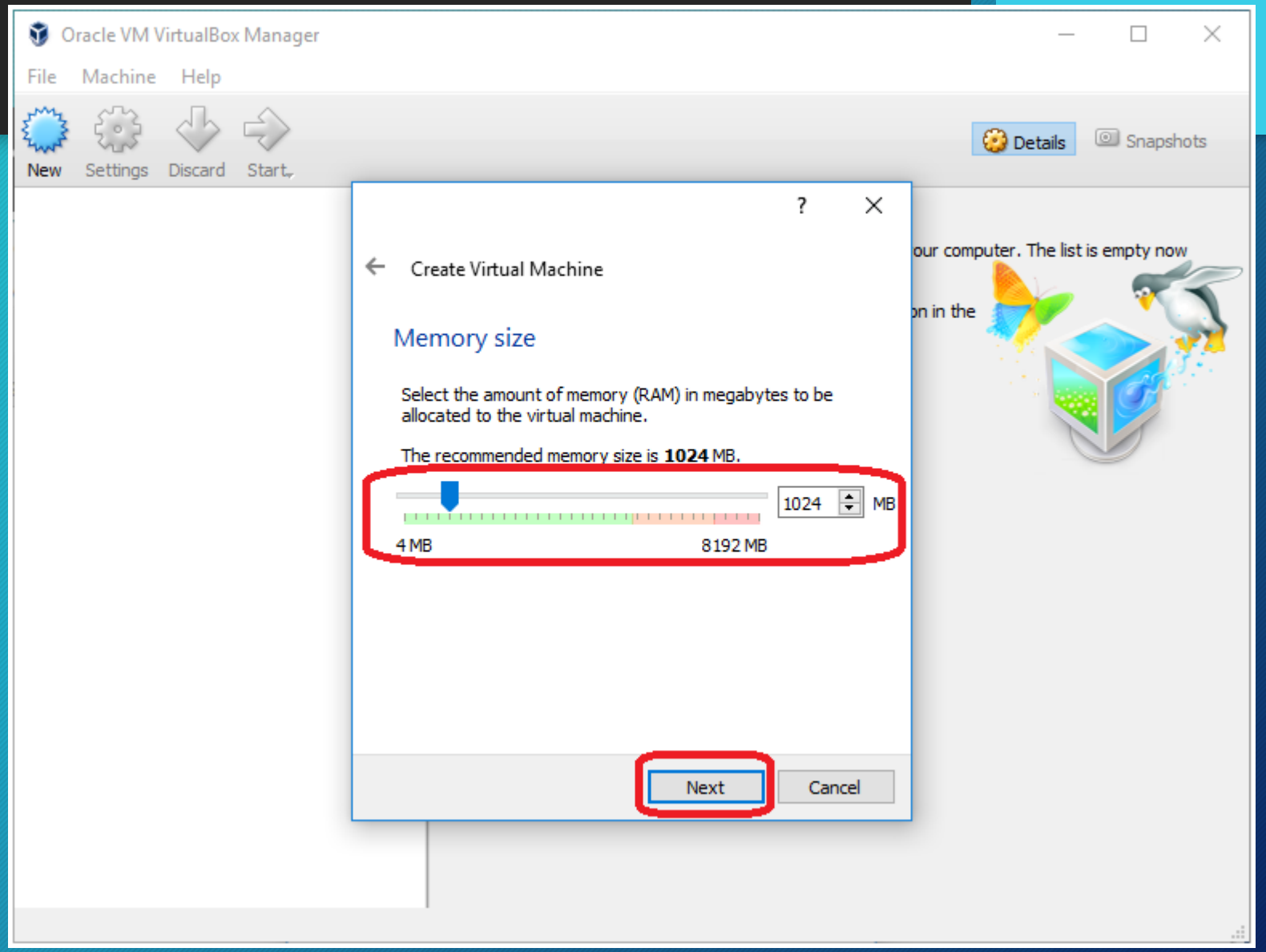

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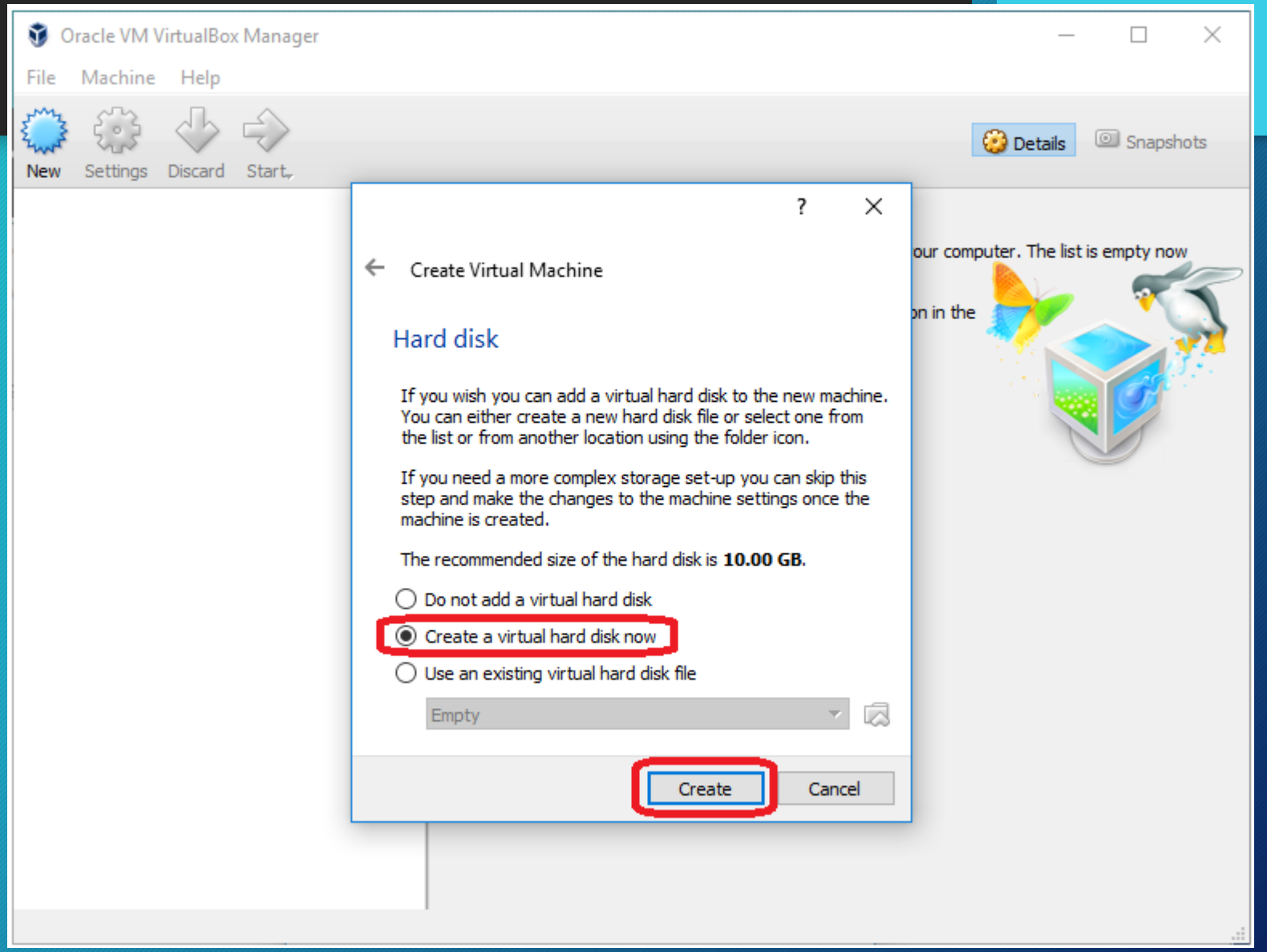

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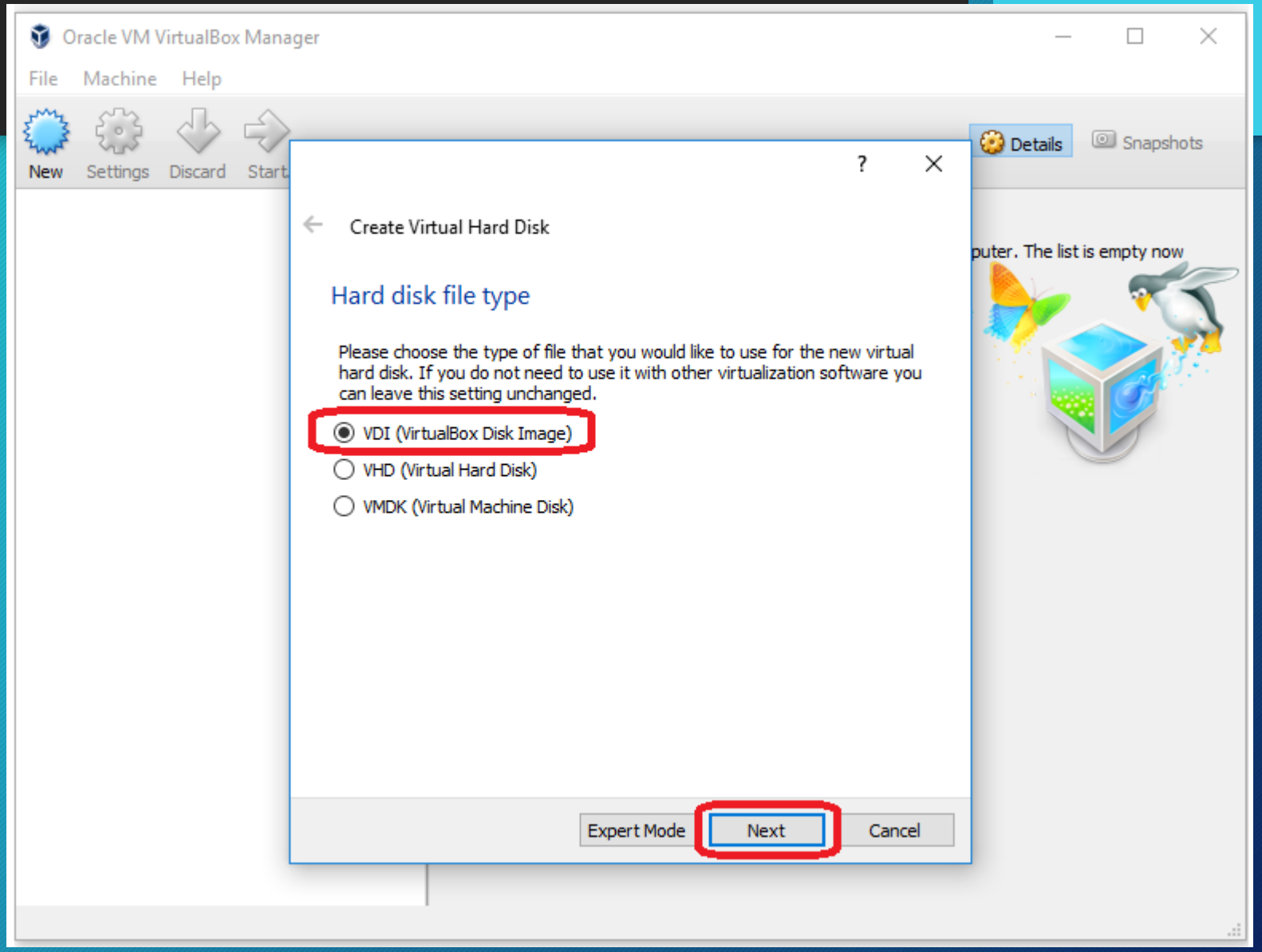

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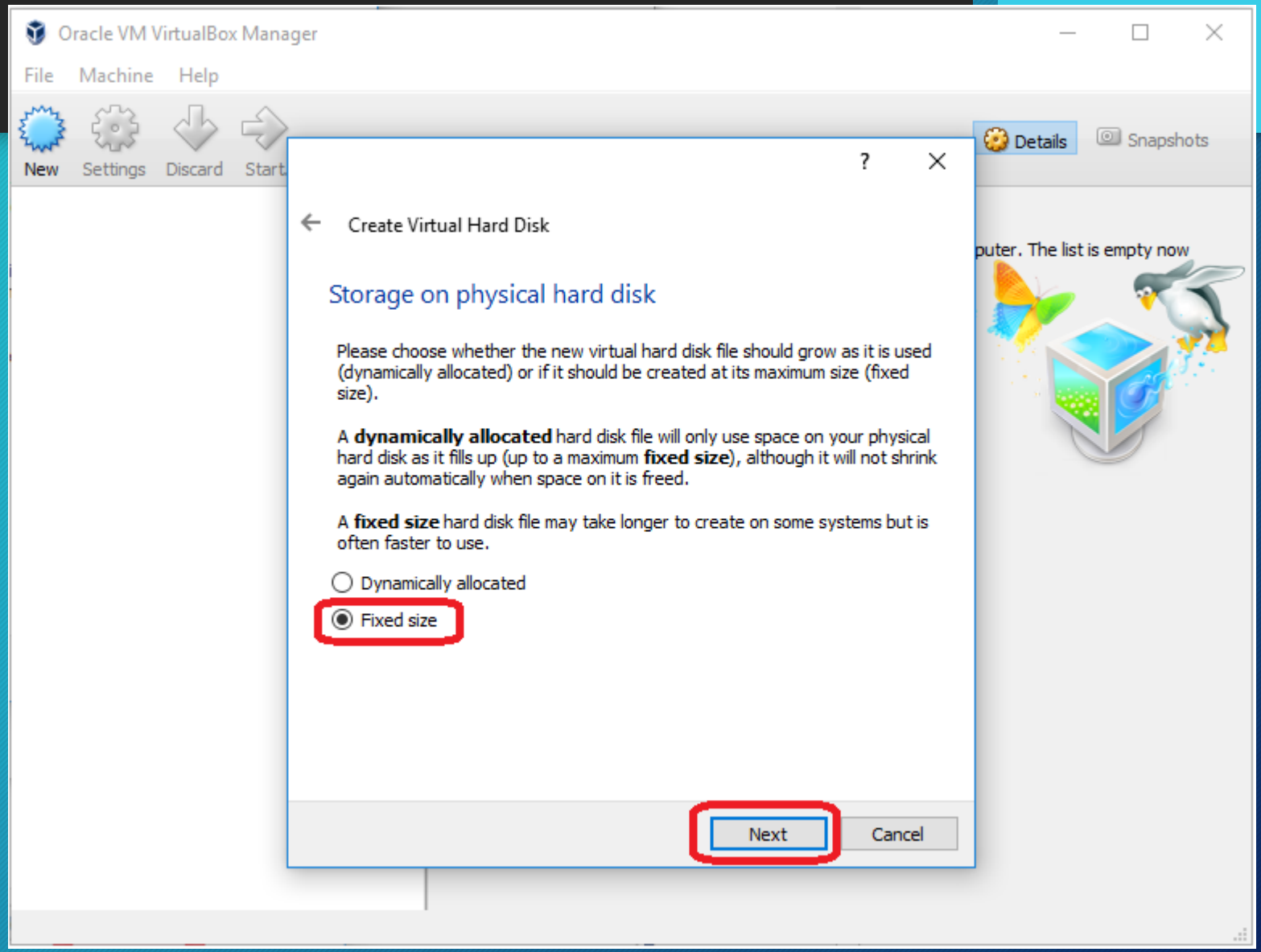

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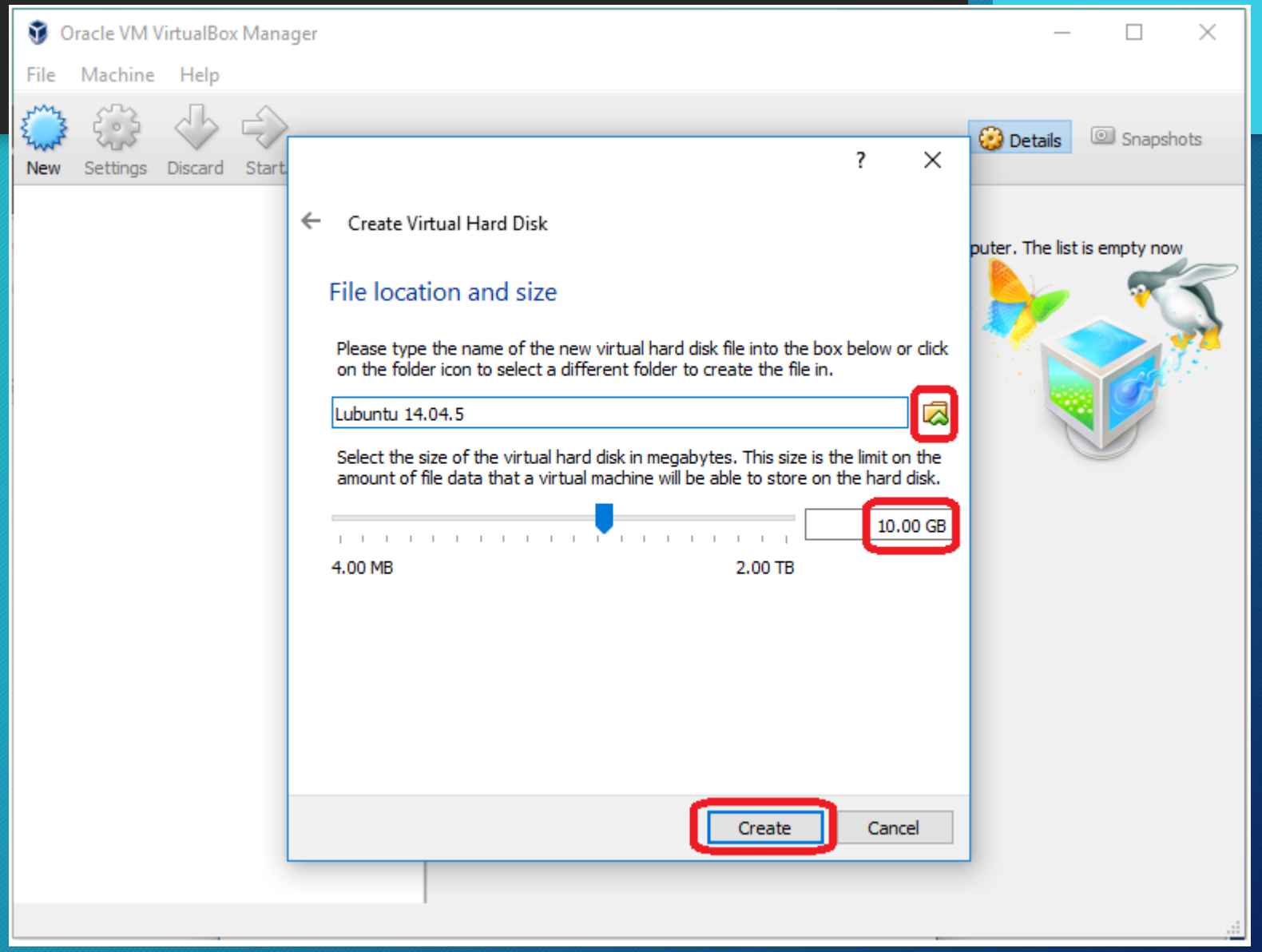

Installing Lubuntu using VirtualBox

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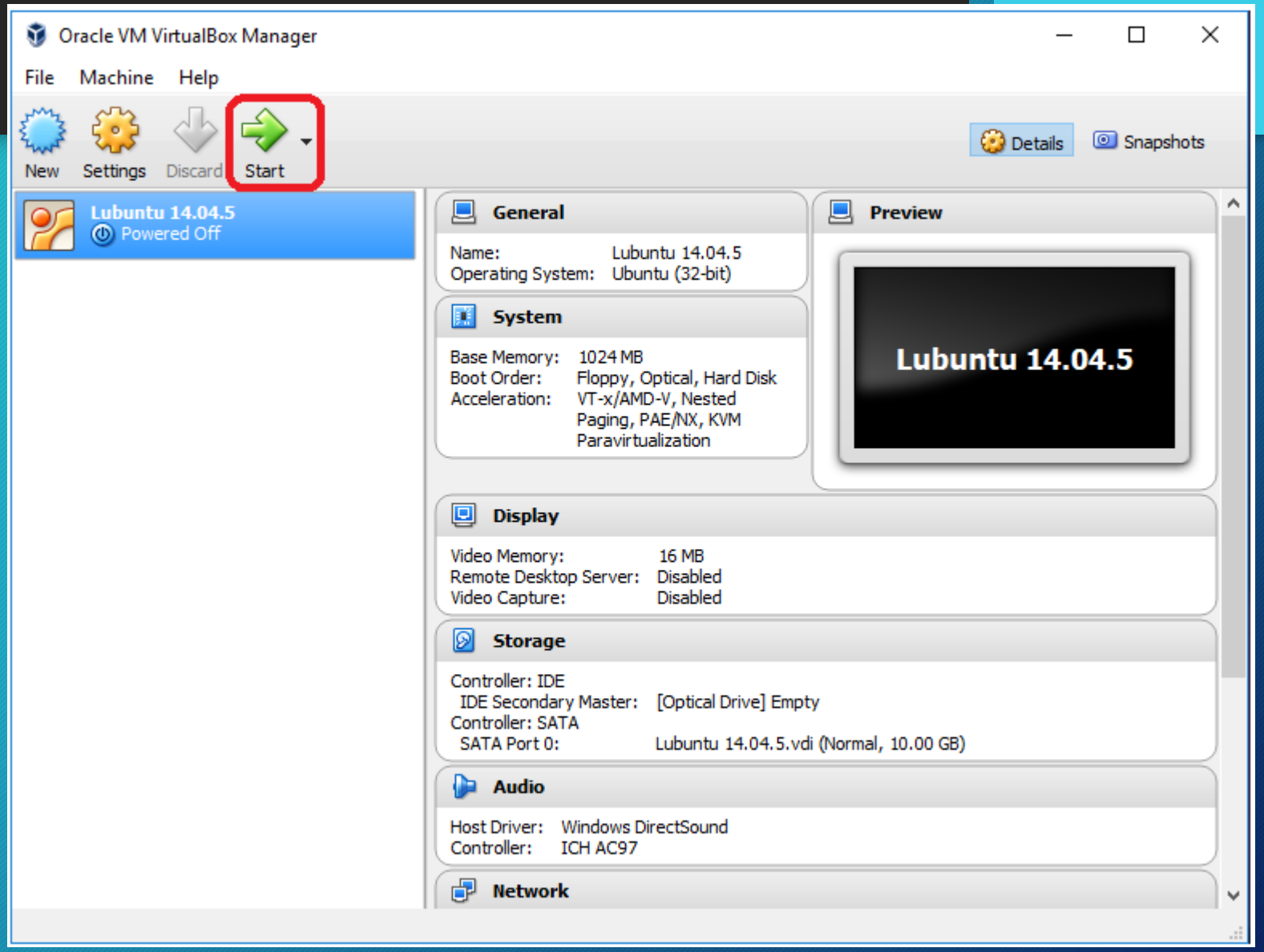

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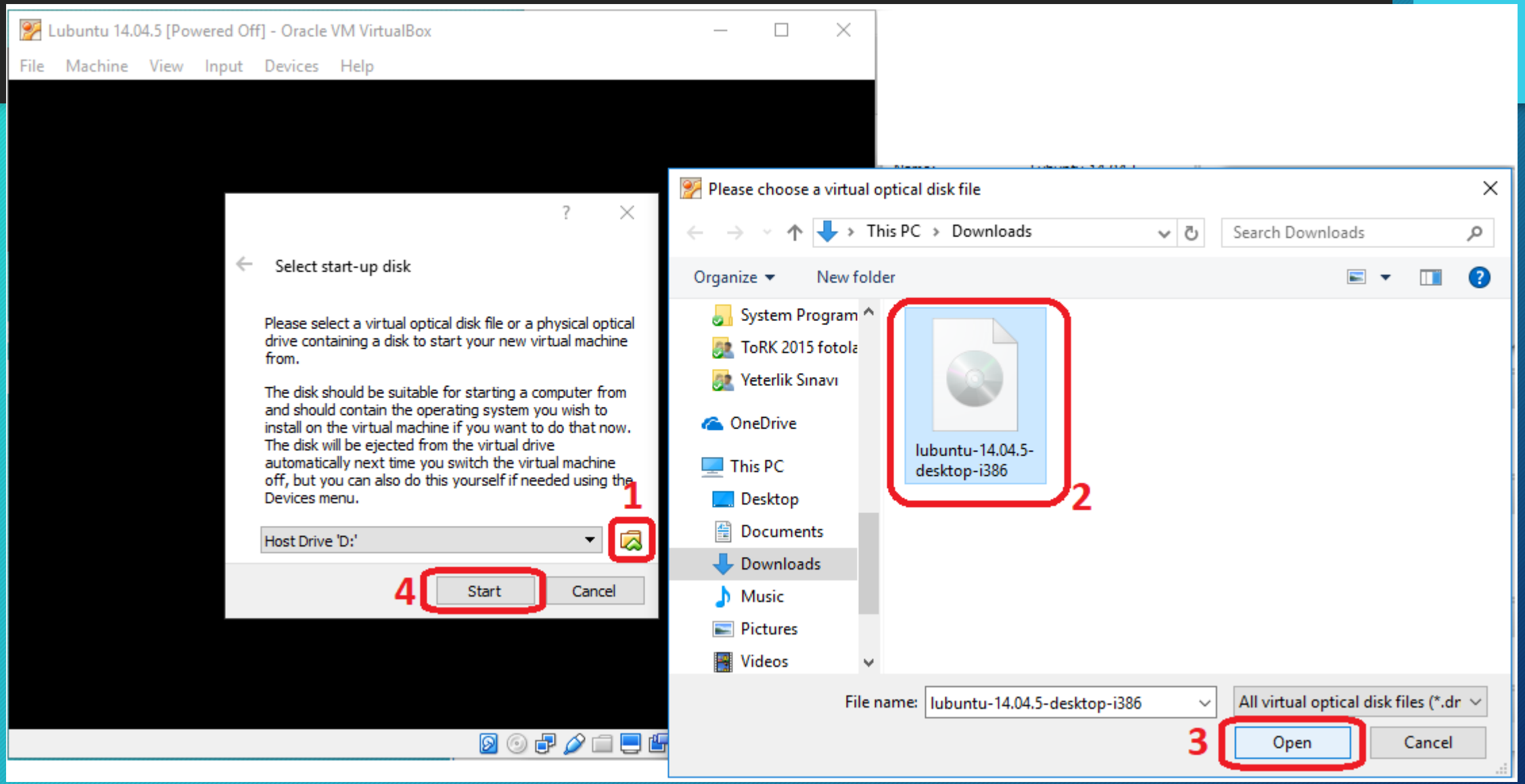

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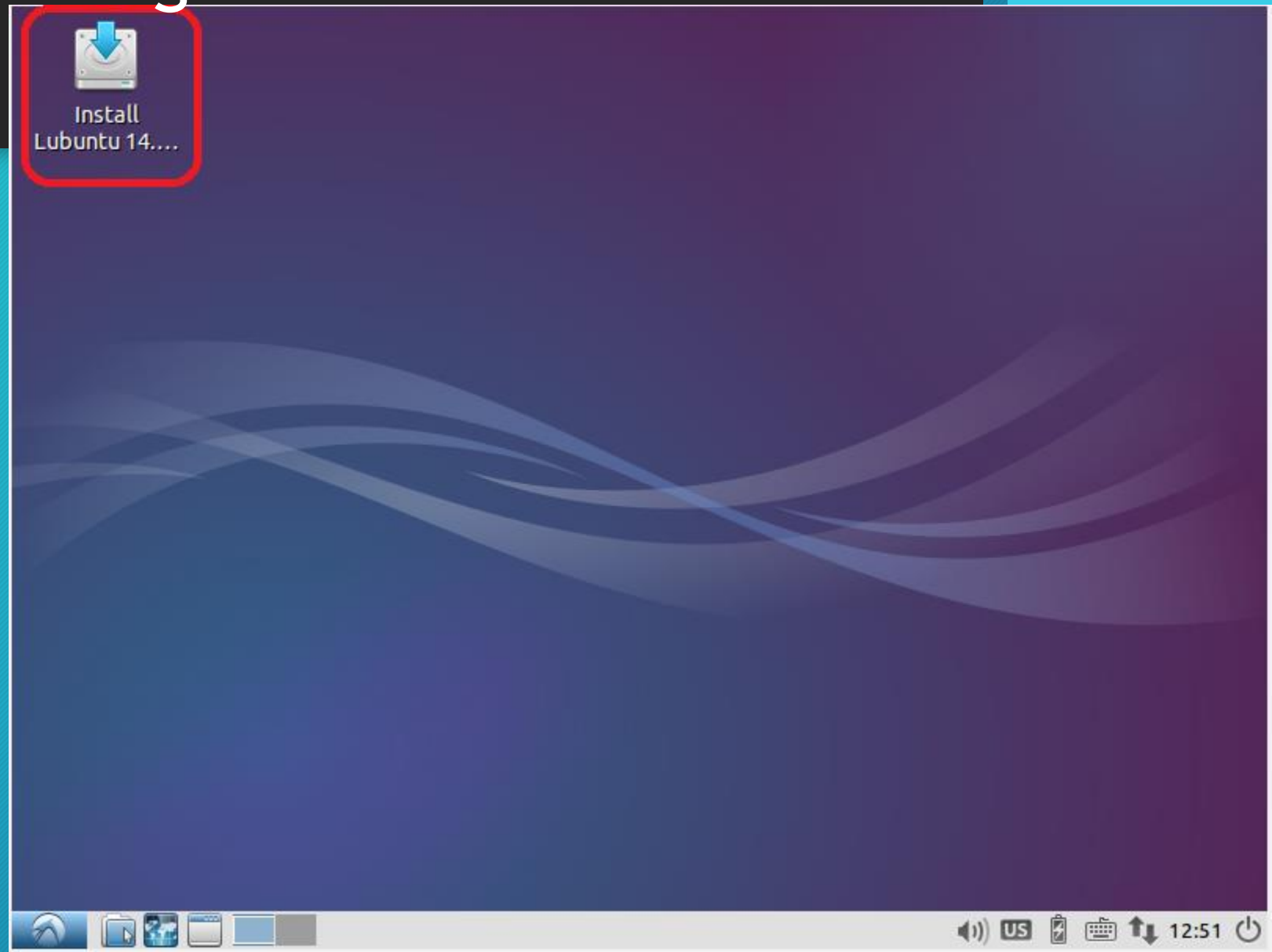

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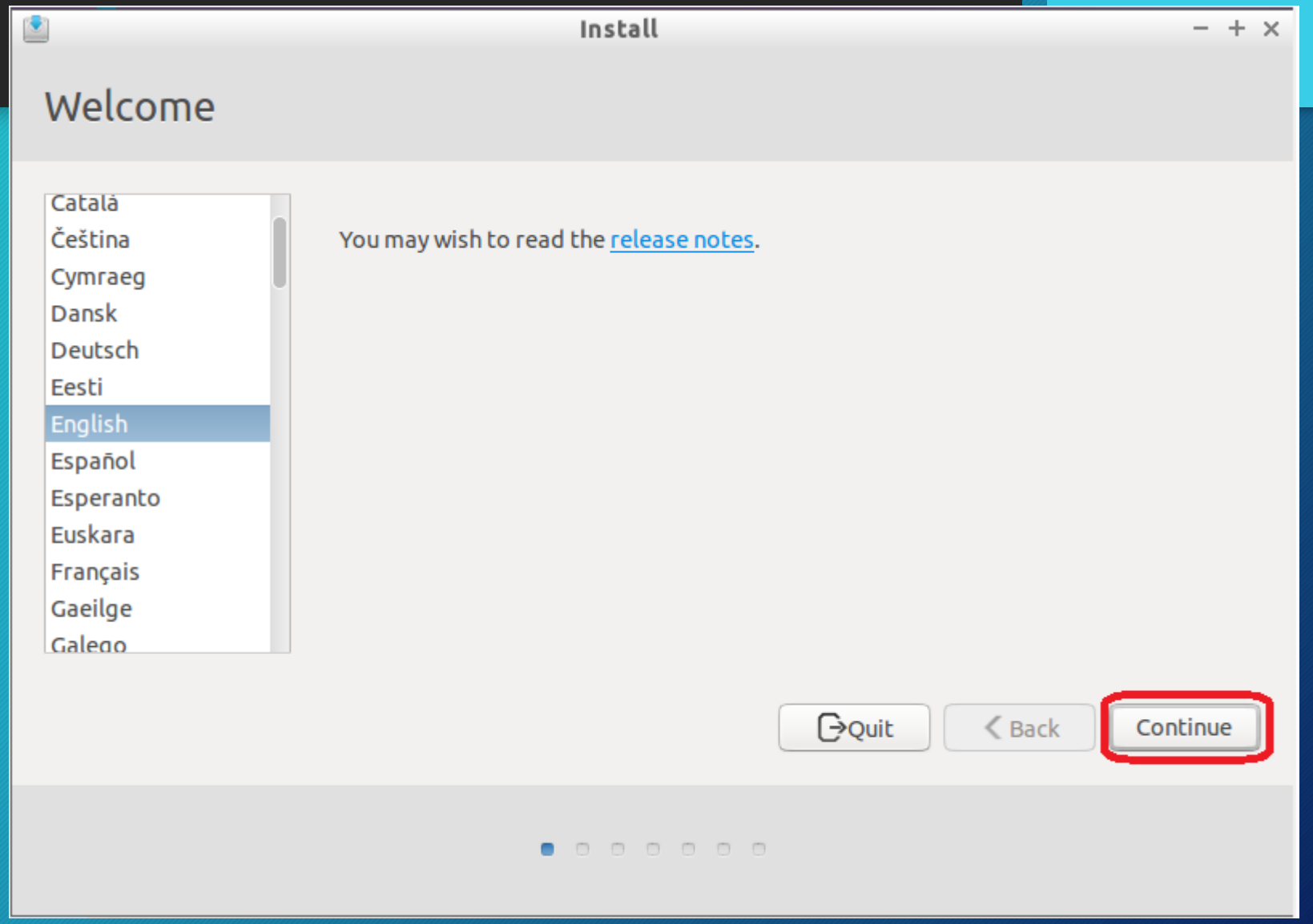

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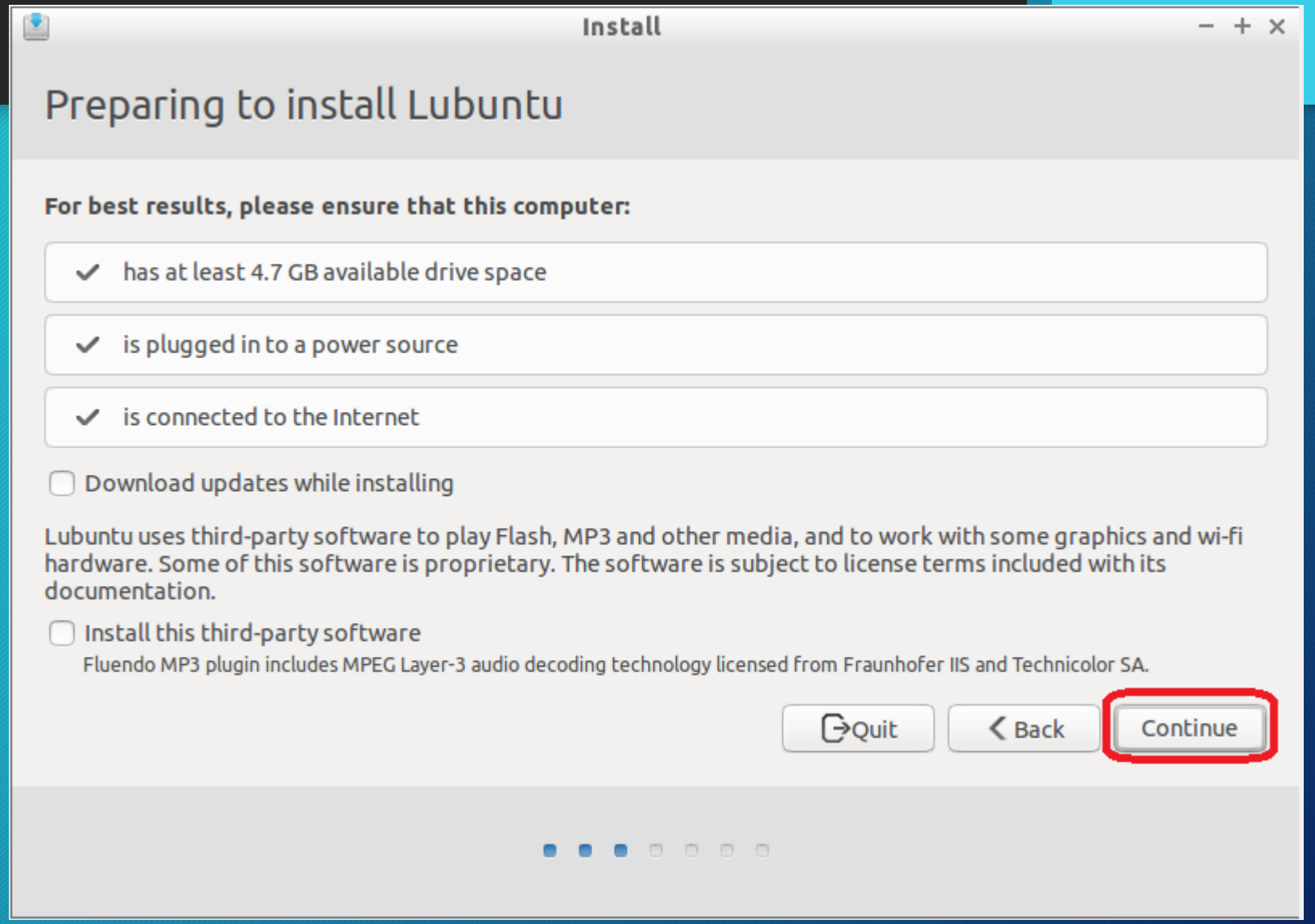

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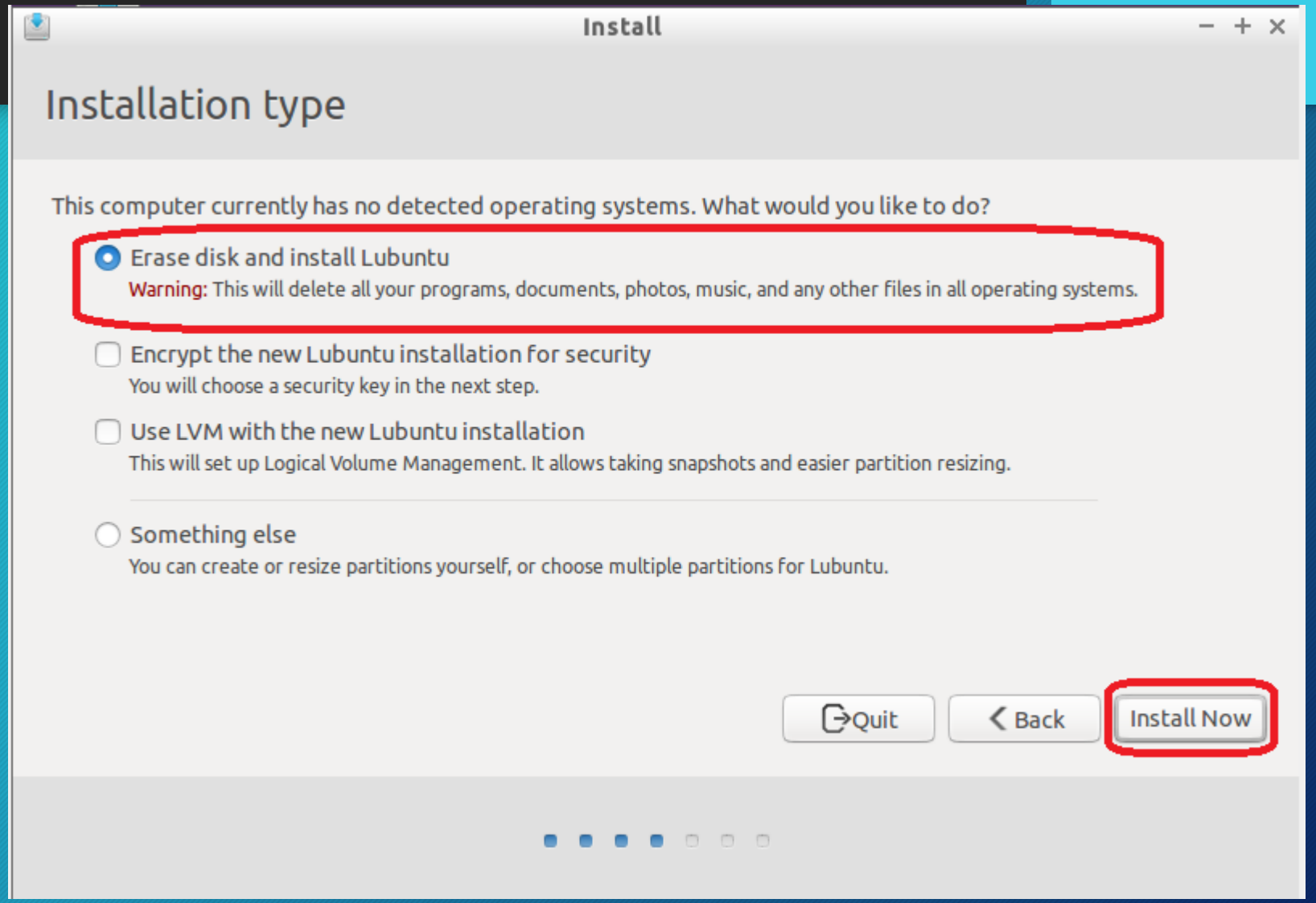

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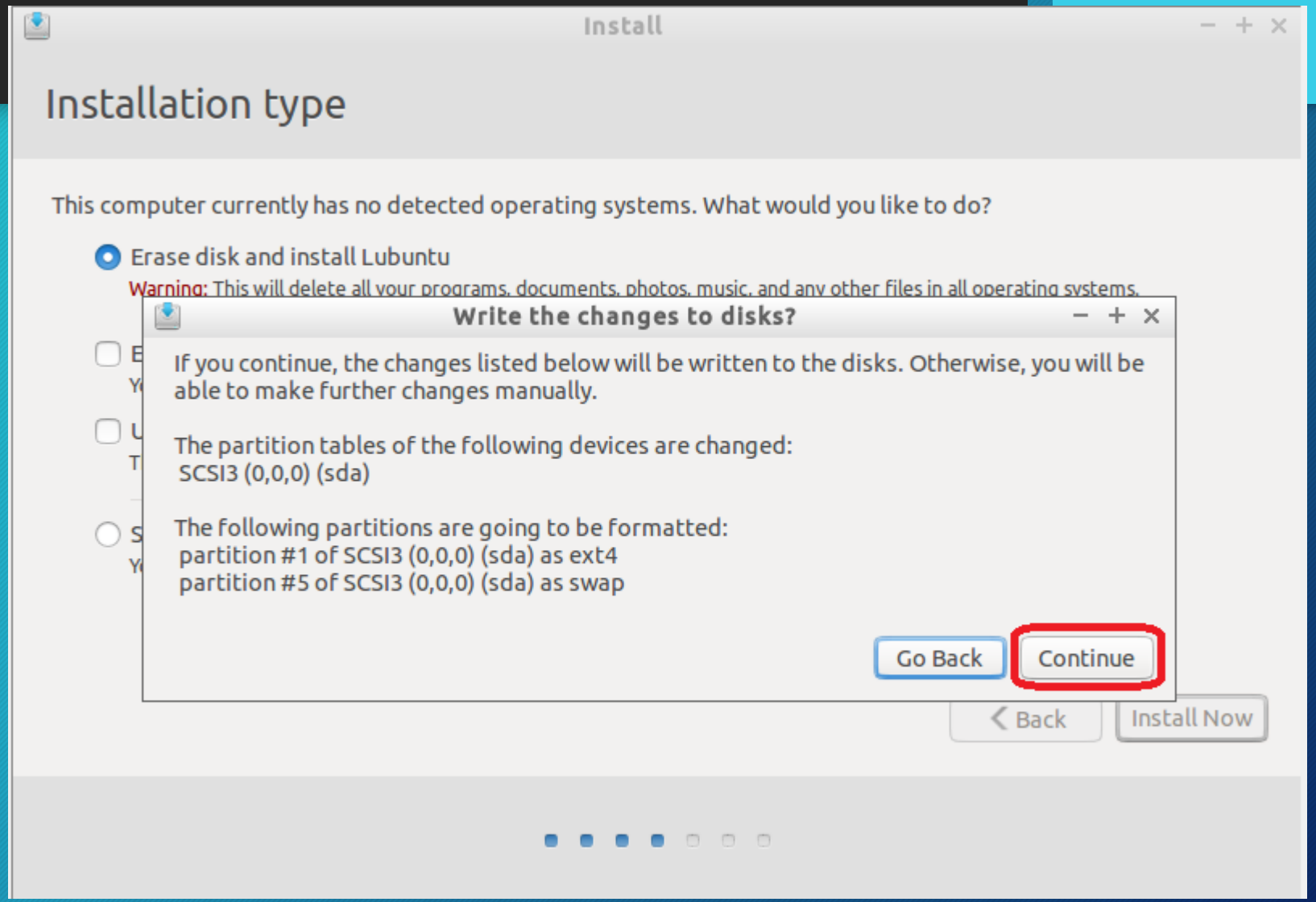

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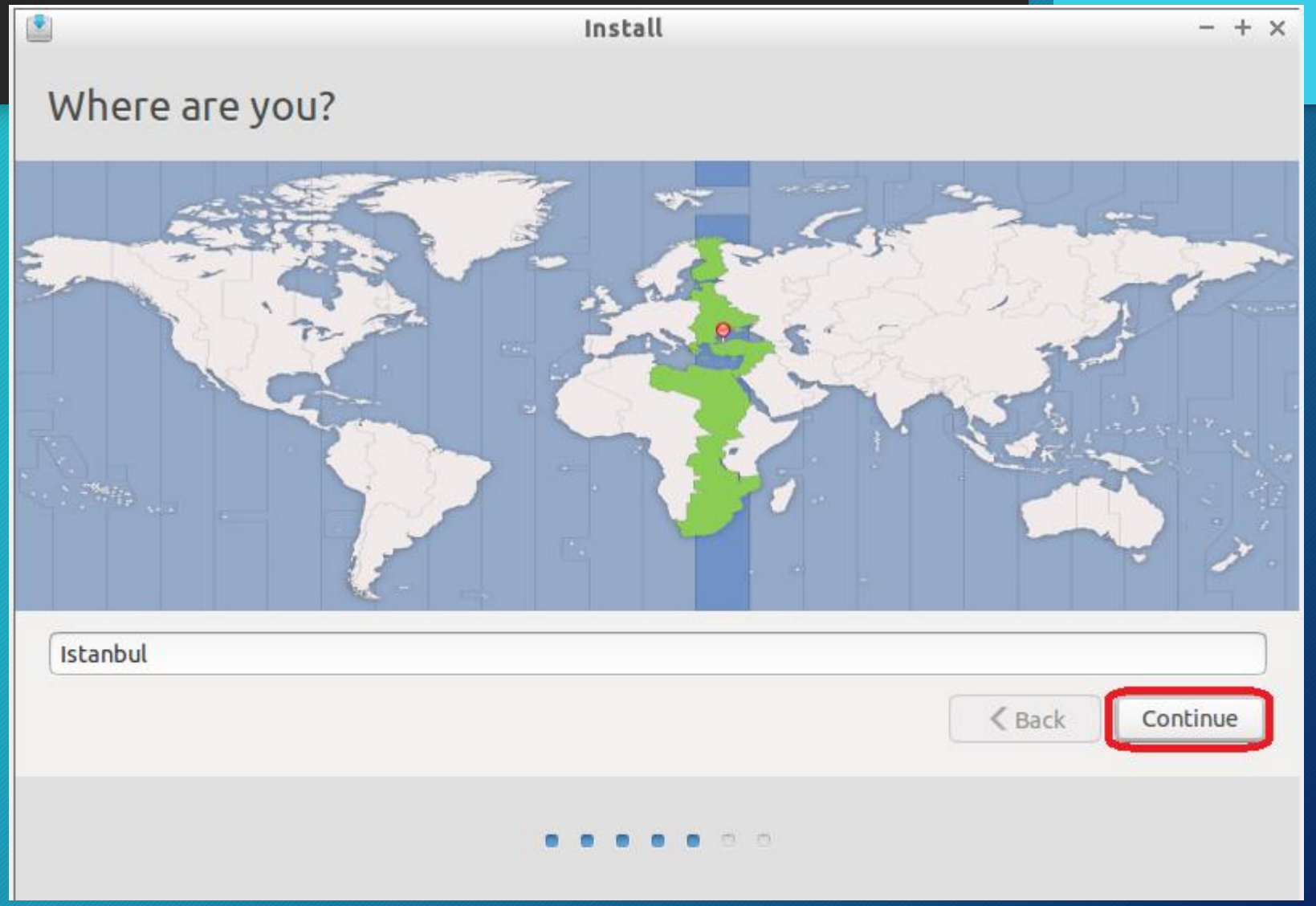

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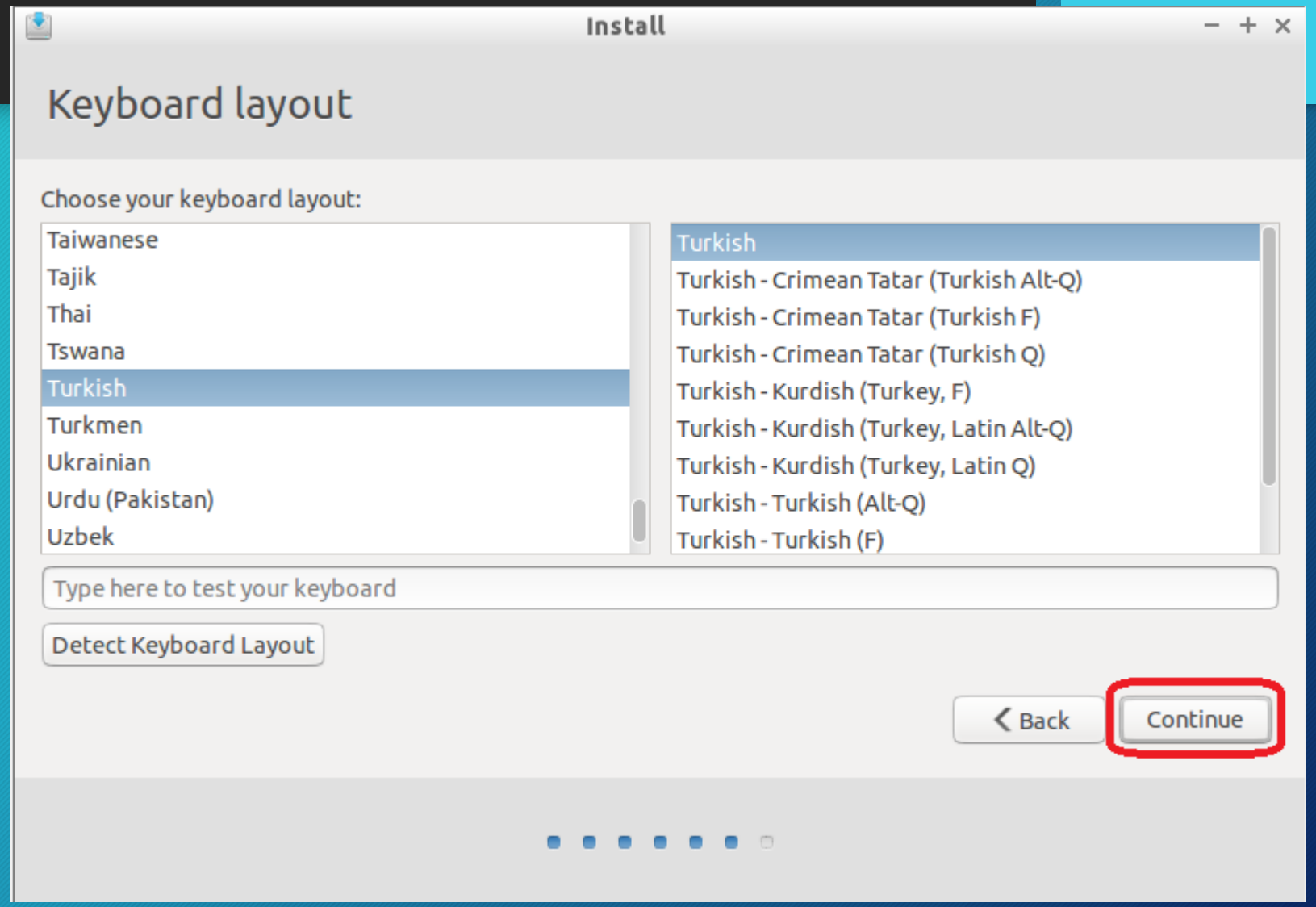

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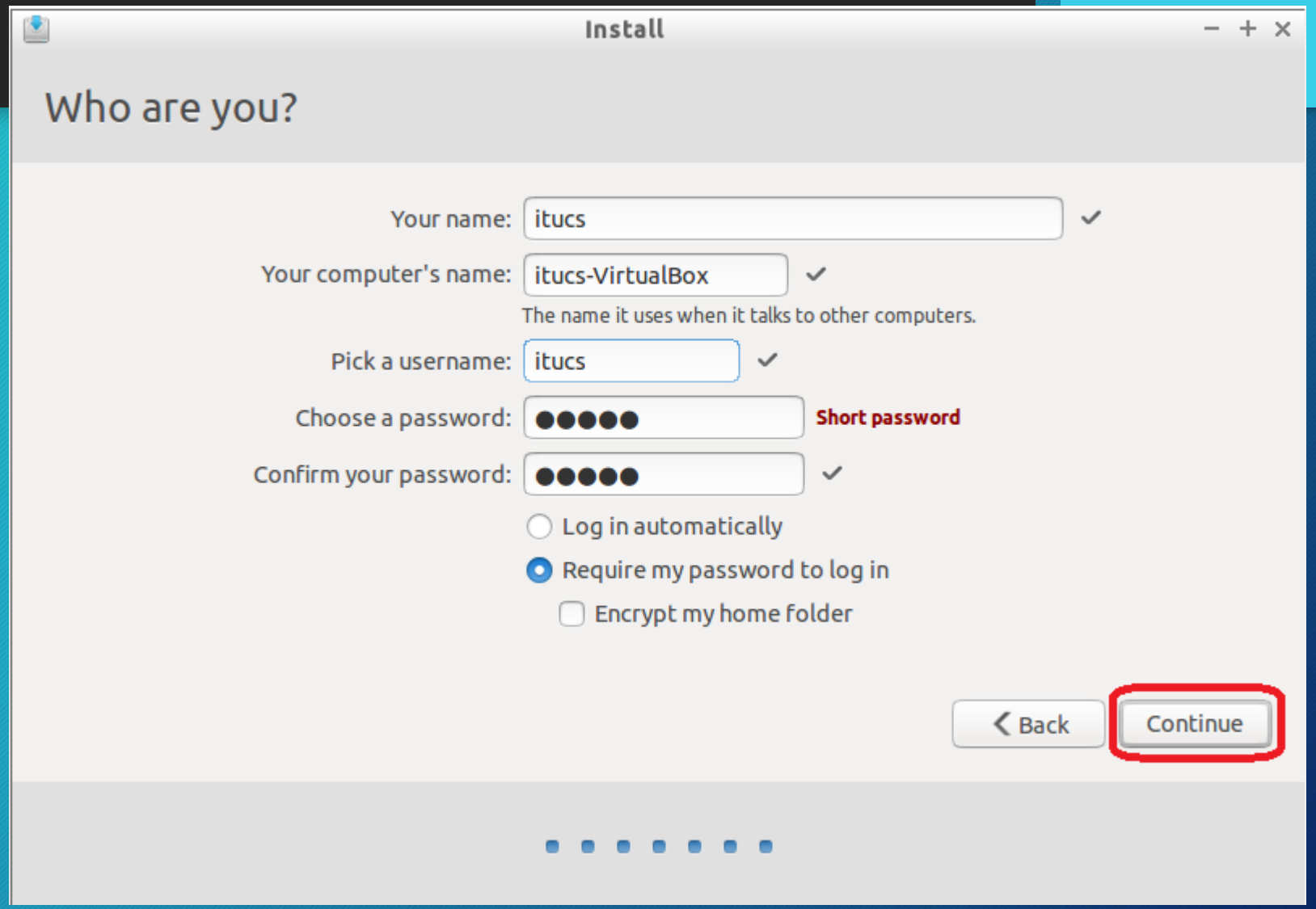
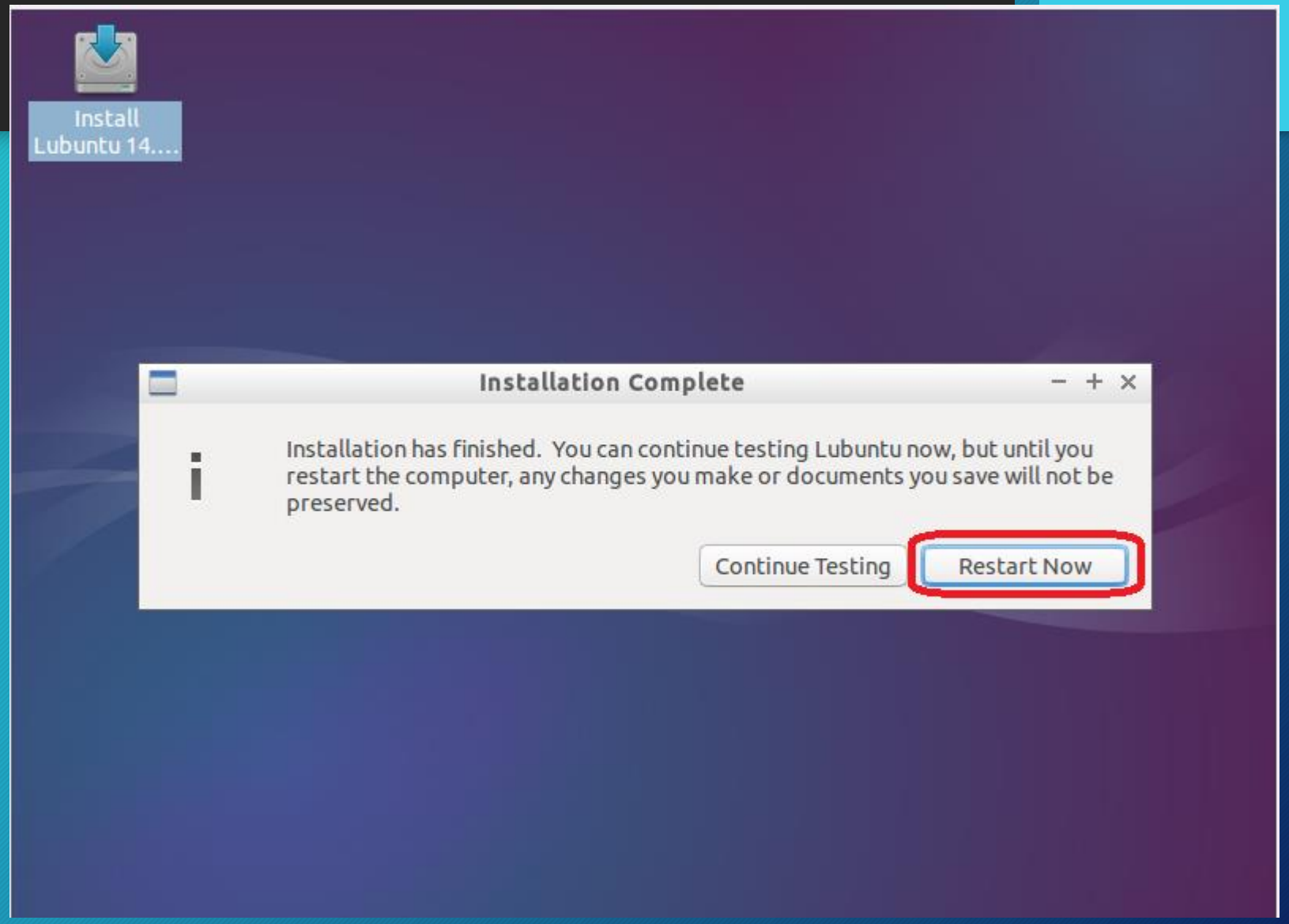


Installing Lubuntu using VirtualBox

4. Install Lubuntu on virtual machine
   - Wait until the installation is complete

Installing Lubuntu using VirtualBox

4. Install Lubuntu on virtual machine



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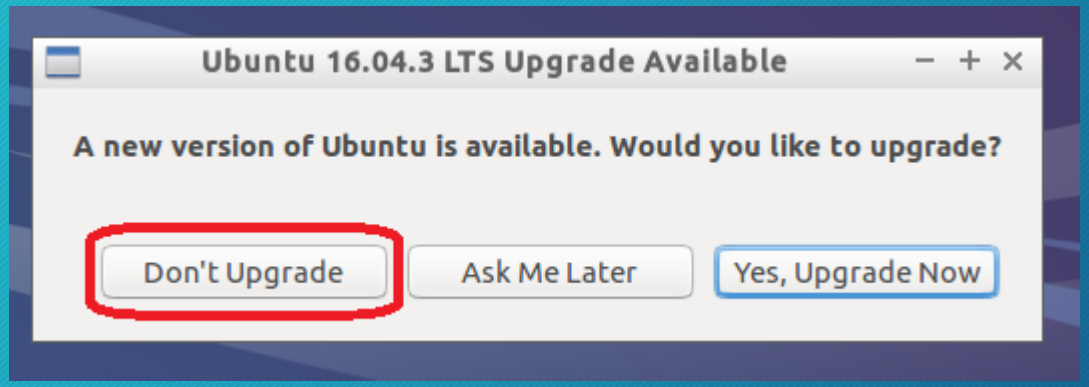
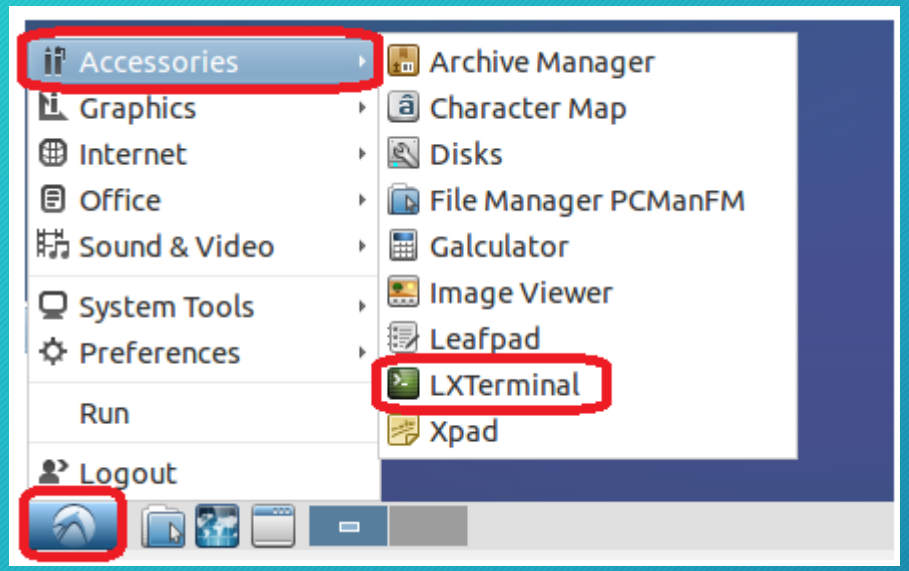


Installing Lubuntu using VirtualBox

5. Install required software for the course:
   - manpages-dev
   - g++
   - patch
   - strace
   - ltrace
   - linux-headers-$(uname -r)
   - linux-source
   - kernel-package
   - fakeroot
   - libncurses5-dev
   - libfuse-dev

Installing Lubuntu using VirtualBox

5. Install required software for the course:
   - Open terminal

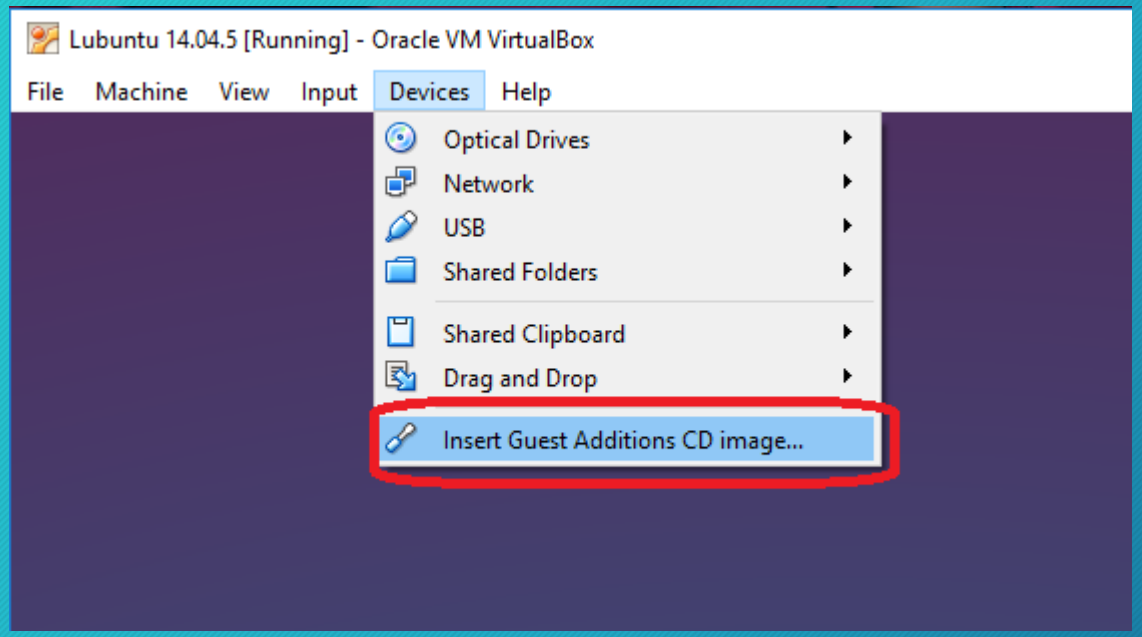


Installing Lubuntu using VirtualBox

5. Install required software for the course:
   - Update package lists
     - sudo apt-get update
   - Install required packages
     - sudo apt-get install manpages-dev g++ patch strace ltrace linux-headers-$(uname -r) linux-source kernel-package fakeroot libncurses5-dev libfuse-dev
   - Install a code editor
     - sudo apt-get install geany

Installing VirtualBox Guest Additions

- Guest additions are necessary to be able to share files between your host operating system and virtual operating system.



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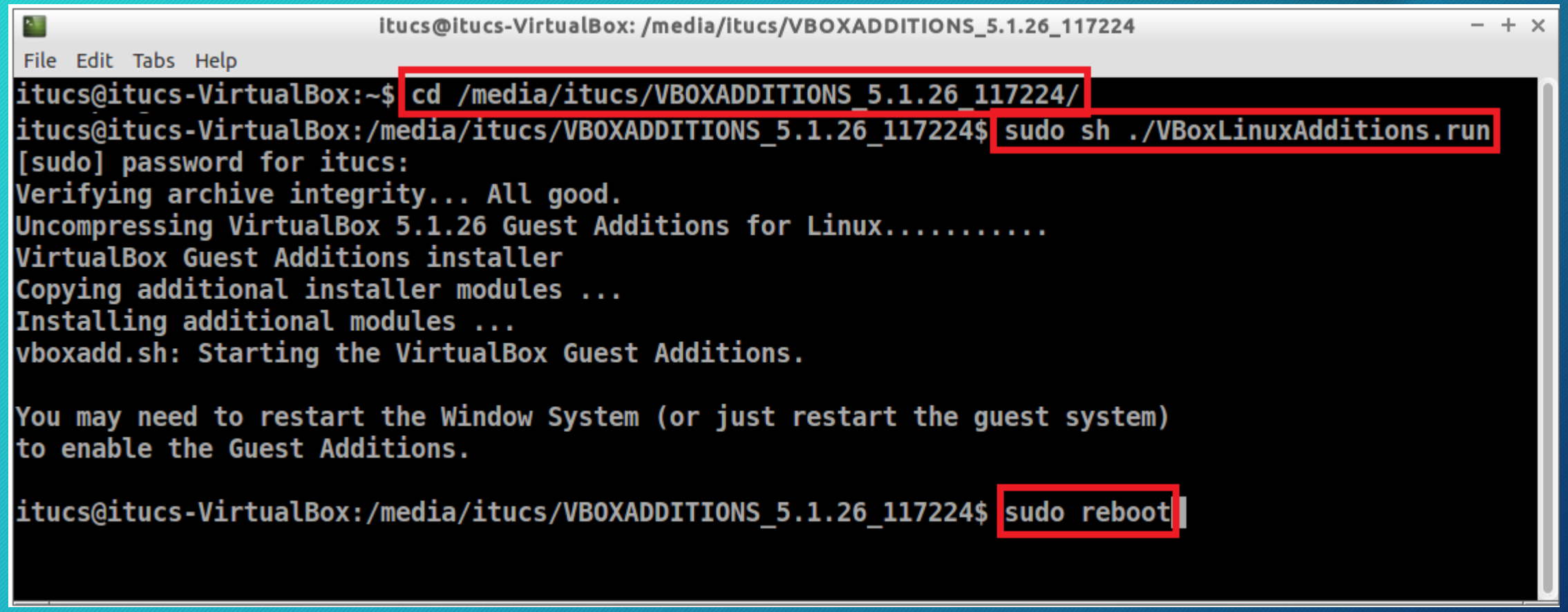
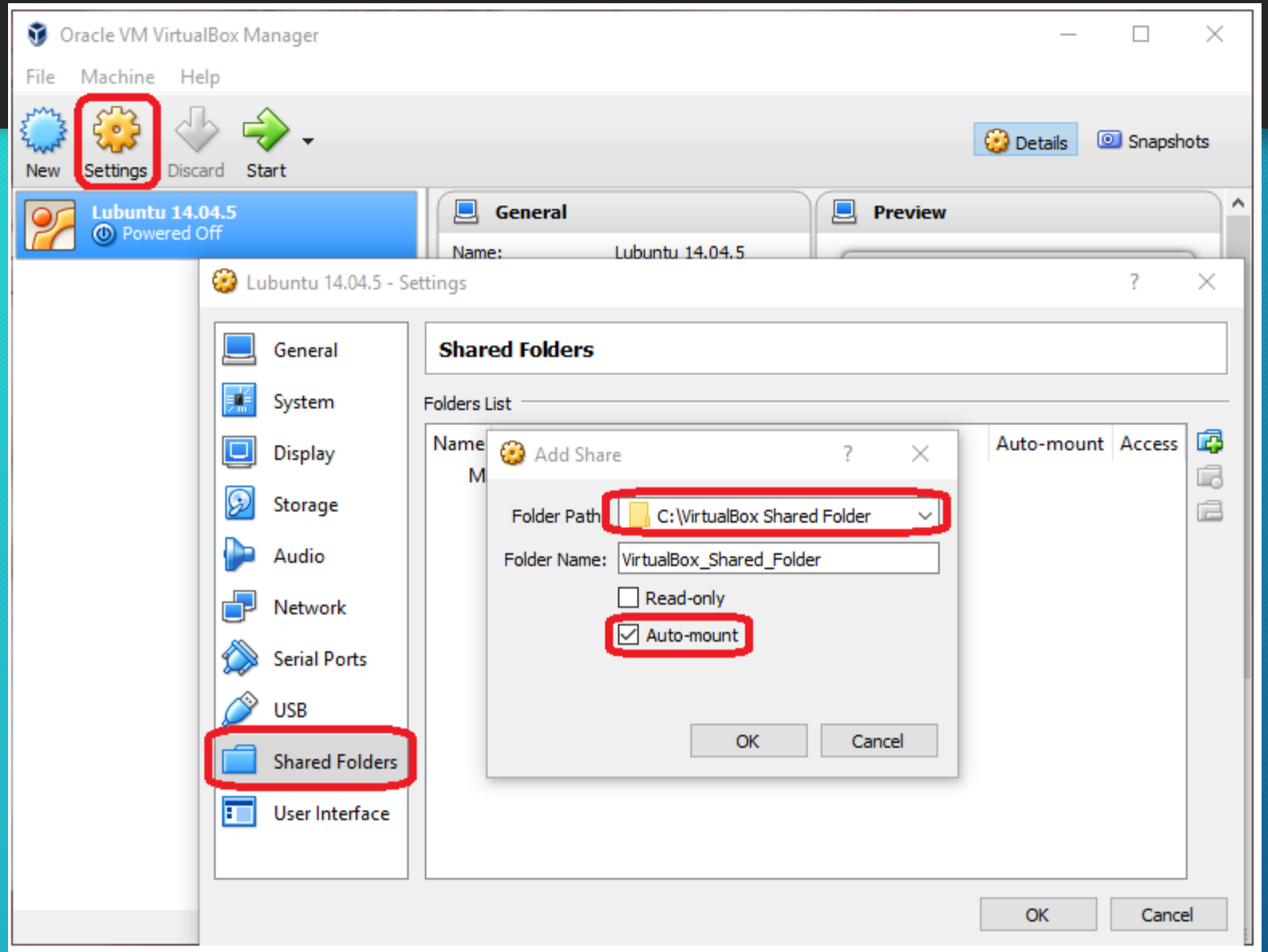
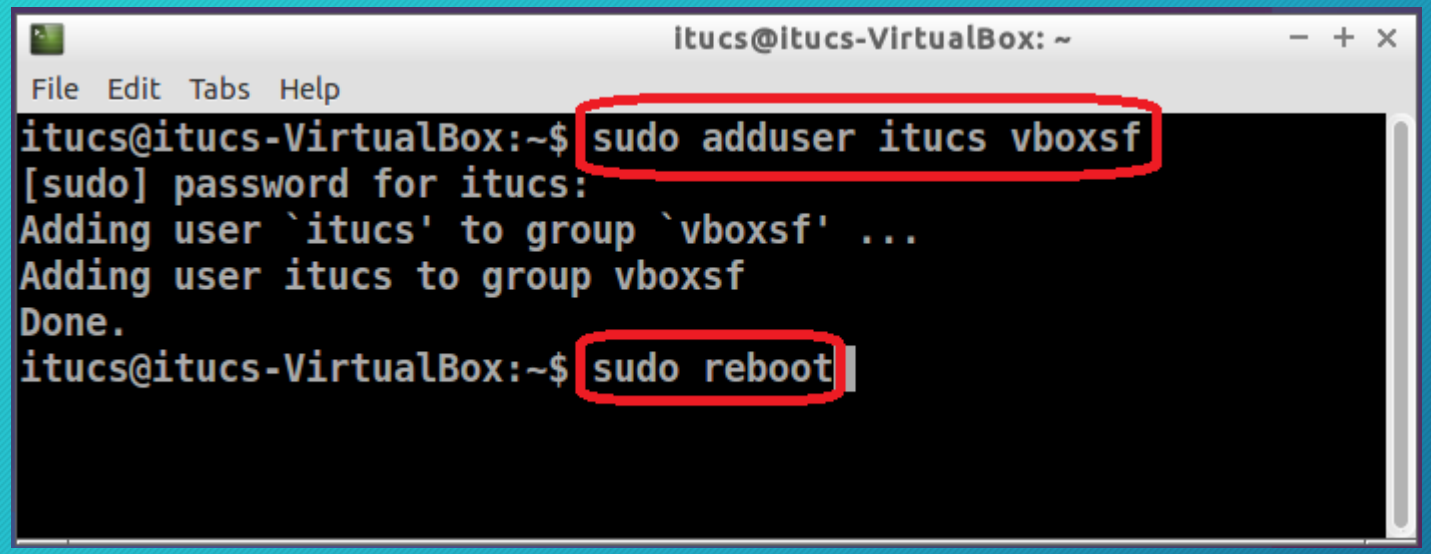


Creating a Shared Folder



Creating a Shared Folder

- Add your user to VirtualBox shared folder group for giving access



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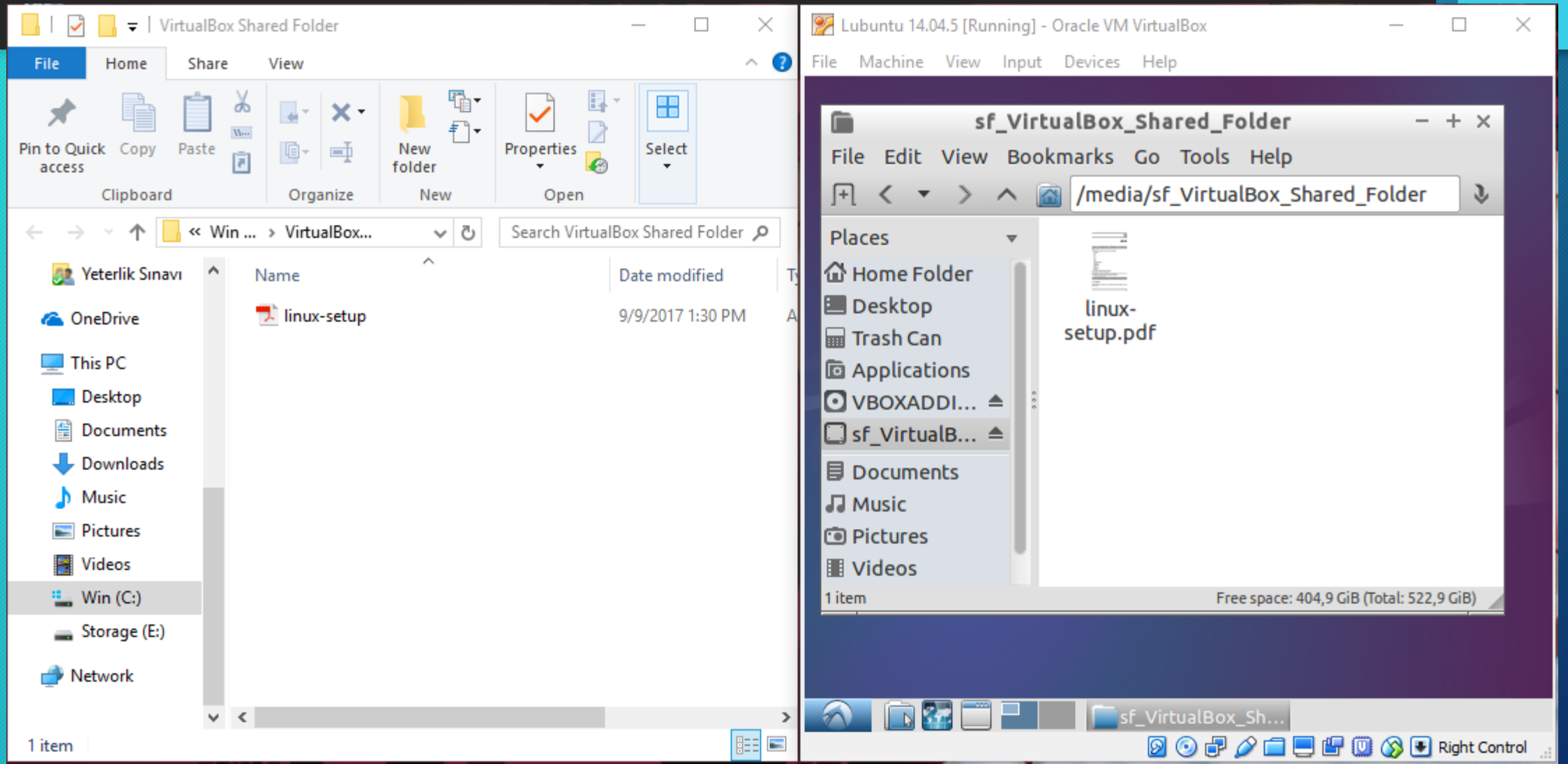

Sharing Clipboard Between Host OS and Virtual OS