

Setting up your virtual environment. Part 1

1. Start by downloading and installing Oracle Virtual Box

<https://www.virtualbox.org/wiki/Downloads>



The screenshot shows the VirtualBox website's download page. The browser's address bar displays the URL <https://www.virtualbox.org/wiki/Downloads>. On the left, a sidebar contains navigation links: About, Screenshots, Downloads, Documentation (with sub-links for End-user docs and Technical docs), Contribute, and Community. The main content area features the VirtualBox logo, a large heading 'Download VirtualBox', and a paragraph stating that links to binaries and source code will be found there. Below this is a section for 'VirtualBox binaries' with a warning about license terms and a link to 'VirtualBox 5.1 builds'. A section for 'VirtualBox 5.2.18 platform packages' lists links for Windows, OS X, Linux, and Solaris hosts. A note at the bottom advises upgrading guest additions after upgrading VirtualBox.

← → ↻ Secure <https://www.virtualbox.org/wiki/Downloads>



VirtualBox

Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 5.1 packages, see [VirtualBox 5.1 builds](#). Consider upgrading.

VirtualBox 5.2.18 platform packages

- [Windows hosts](#)
- [OS X hosts](#)
- [Linux distributions](#)
- [Solaris hosts](#)

The binaries are released under the terms of the GPL version 2.

See the [changelog](#) for what has changed.

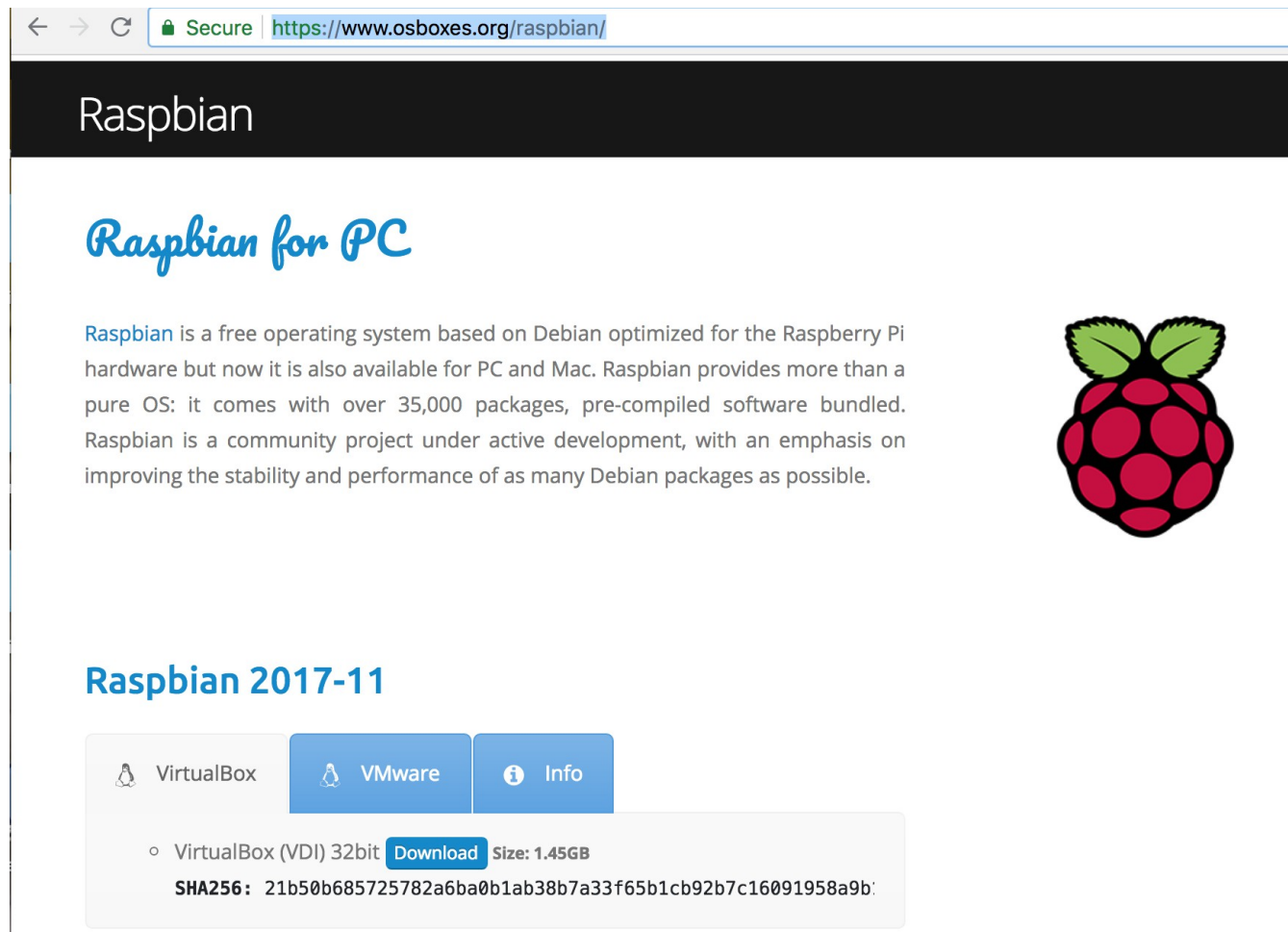
You might want to compare the checksums to verify the integrity of downloaded packages. *The SHA256 algorithm must be treated as insecure!*

- [SHA256 checksums](#), [MD5 checksums](#)

Note: After upgrading VirtualBox it is recommended to upgrade the guest additions as well.

2. Next, download the Raspbian virtual disk image:

<https://www.osboxes.org/raspbian/>

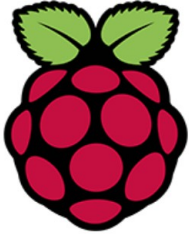


The screenshot shows a web browser window with the address bar displaying "Secure https://www.osboxes.org/raspbian/". The page has a black header with the word "Raspbian" in white. Below the header, the title "Raspbian for PC" is written in a blue, cursive font. A paragraph of text describes Raspbian as a free operating system based on Debian, optimized for Raspberry Pi hardware but also available for PC and Mac. It mentions over 35,000 packages and pre-compiled software. To the right of the text is a large, stylized red raspberry logo with two green leaves. Below the text, the section "Raspbian 2017-11" is highlighted in blue. Under this section, there are three buttons: "VirtualBox" (with a penguin icon), "VMware" (with a VM icon), and "Info" (with an 'i' icon). Below these buttons, a download link for "VirtualBox (VDI) 32bit" is shown, with a "Download" button and the size "1.45GB". At the bottom, the SHA256 hash is displayed: "SHA256: 21b50b685725782a6ba0b1ab38b7a33f65b1cb92b7c16091958a9b".


Raspbian


Raspbian for PC


Raspbian is a free operating system based on Debian optimized for the Raspberry Pi hardware but now it is also available for PC and Mac. Raspbian provides more than a pure OS: it comes with over 35,000 packages, pre-compiled software bundled. Raspbian is a community project under active development, with an emphasis on improving the stability and performance of as many Debian packages as possible.



Raspbian 2017-11

 VirtualBox

 VMware

 Info

◦ VirtualBox (VDI) 32bit

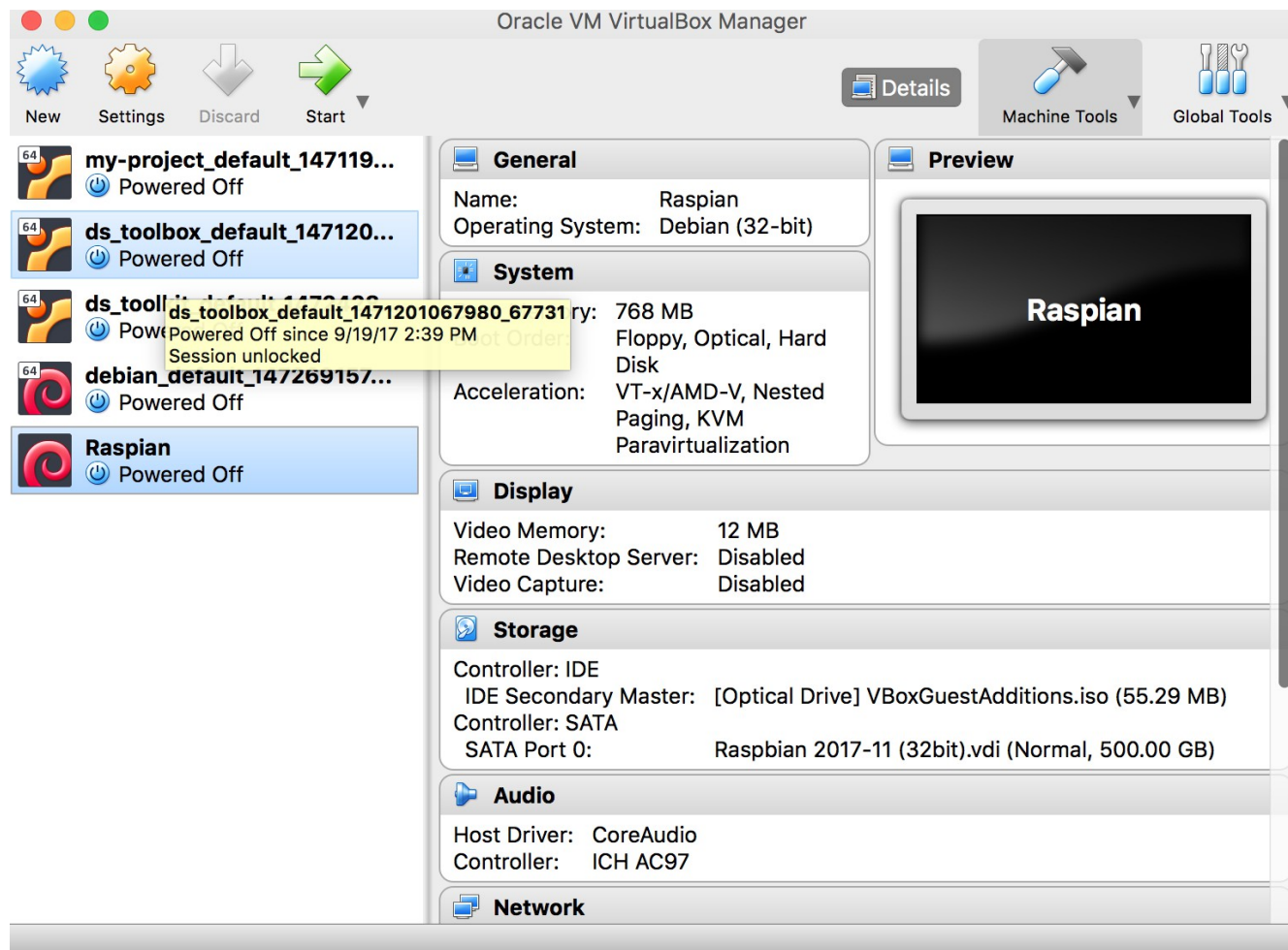
Download

Size: 1.45GB

SHA256: 21b50b685725782a6ba0b1ab38b7a33f65b1cb92b7c16091958a9b

3. Decompress the Raspbian vdi file you downloaded. Raspbian_2017-11-VB-32bit.7z Annoyingly it's been compressed with 7zip, so you may need WinRar to open it on Windows, or an app from the app store. Decompressing gets you a file called Raspbian 2017-11 (32bit).vdi That's the file we will use in virtual box.

4. Launch virtualbox. It will look a bit like this one:



You won't have so many (or any) virtual machines yet, but the one at the bottom, the one that says “Raspbian” is the one we want to build. I've already built one for the class, but I will build another to illustrate how it is done. This screenshot is from a Mac, Windows will look a bit different, but that is mostly the window decorations. The procedure to complete our new machine is the same.

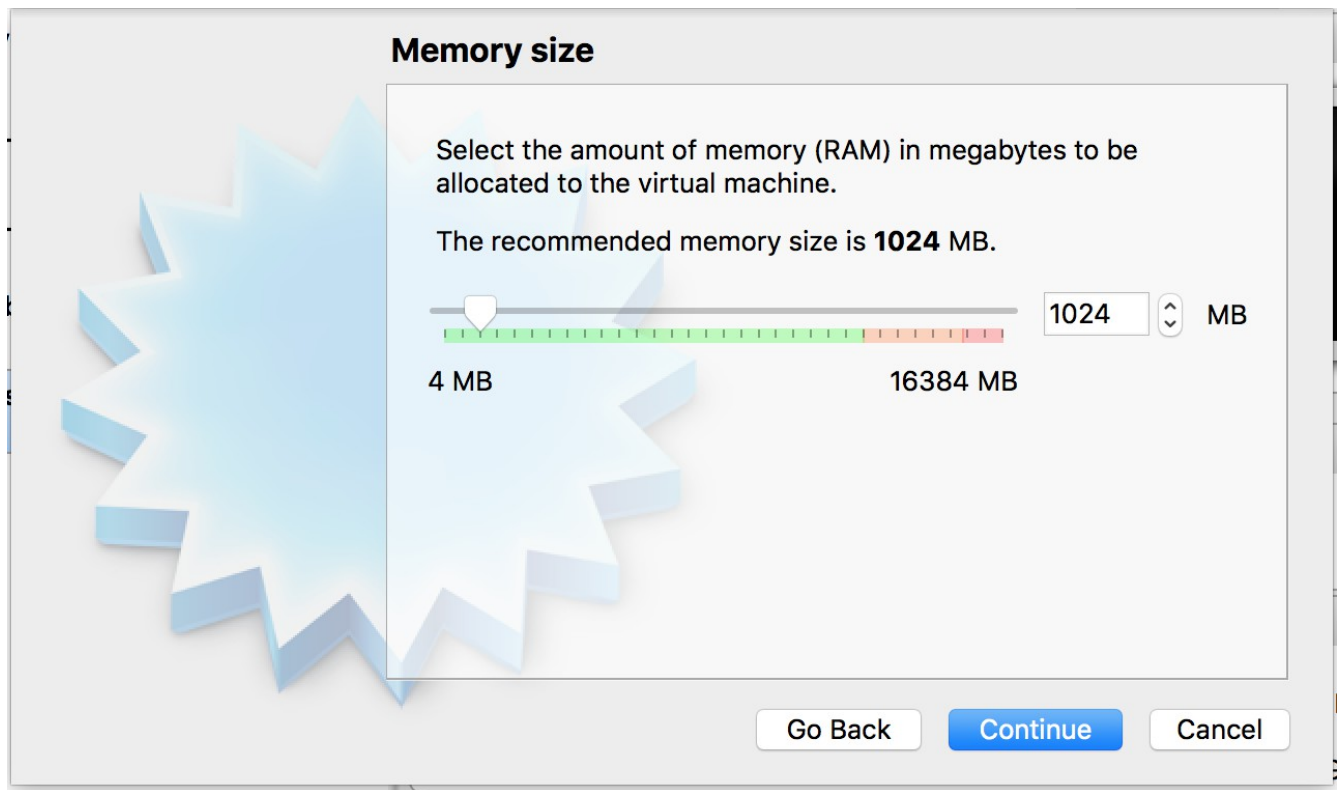
5. Click on New. Complete the resulting dialog so it looks like this:



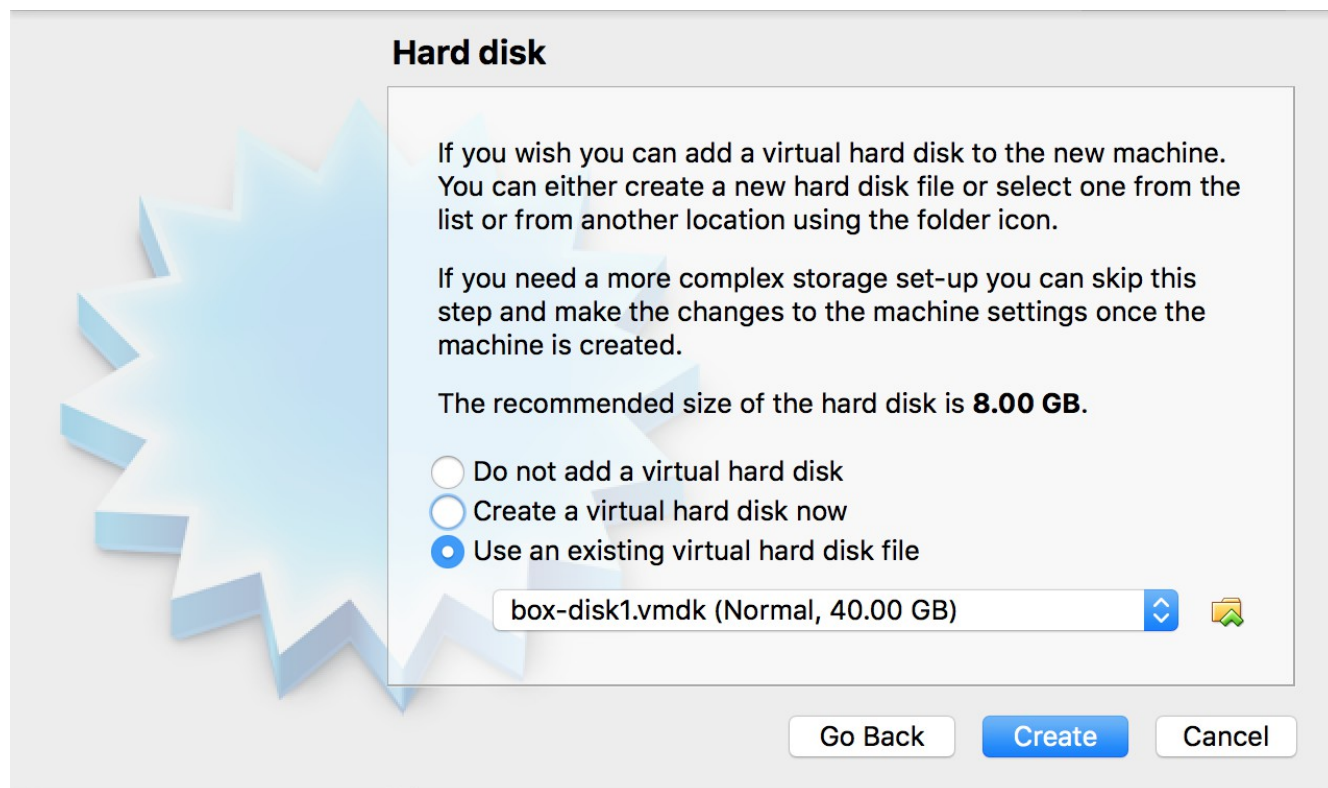
(Just name yours Raspian. I added the Raspian2 because I already have one box set up).

6. Click Continue.

7. And continue past this one:

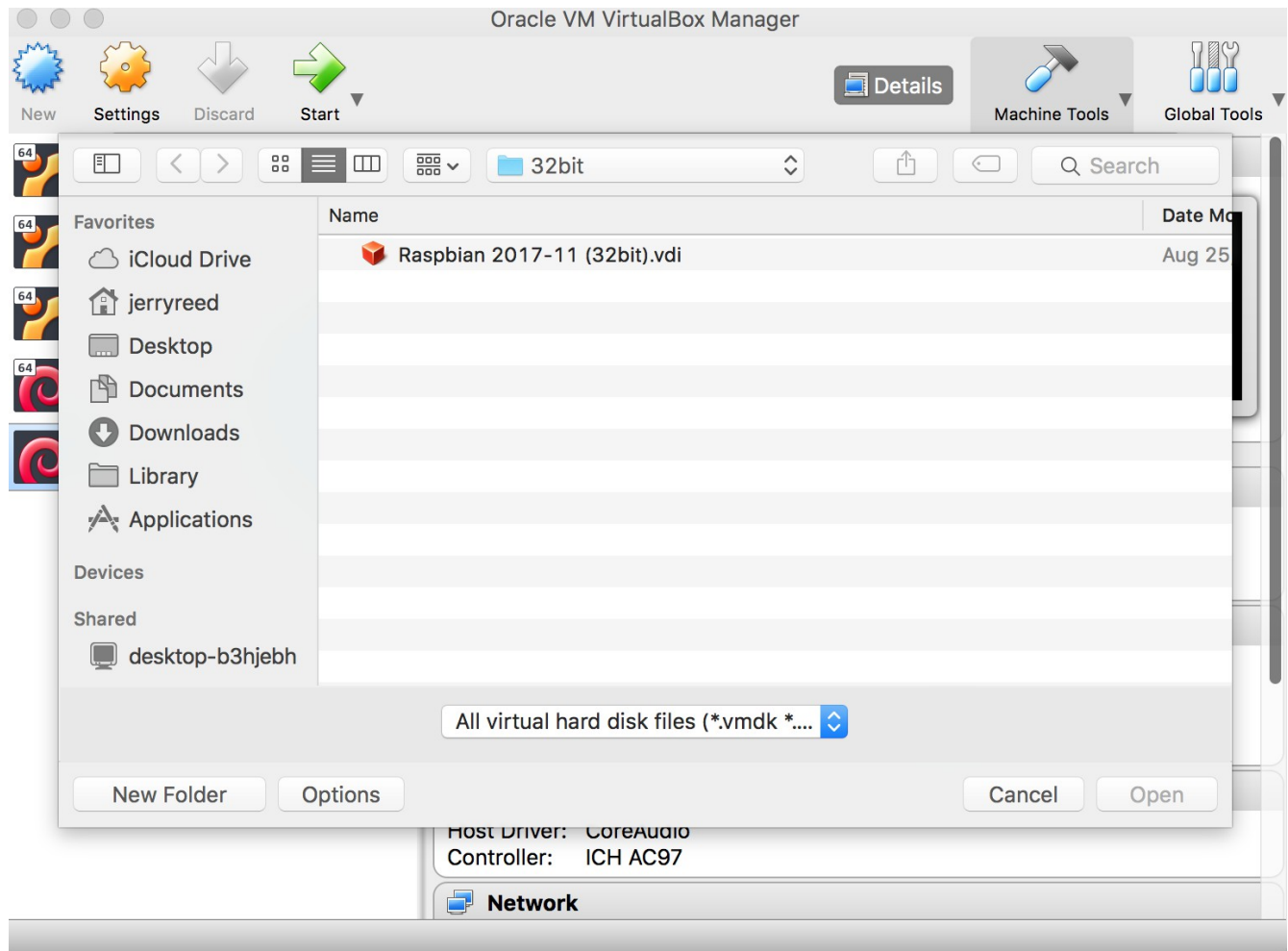


8. Then you will see this dialog:



I've selected "Use an existing virtual hard disk file". Click on the tiny, subtle folder icon just above Cancel, and navigate to the location on your host machine where you decompressed the Raspian vdi file.

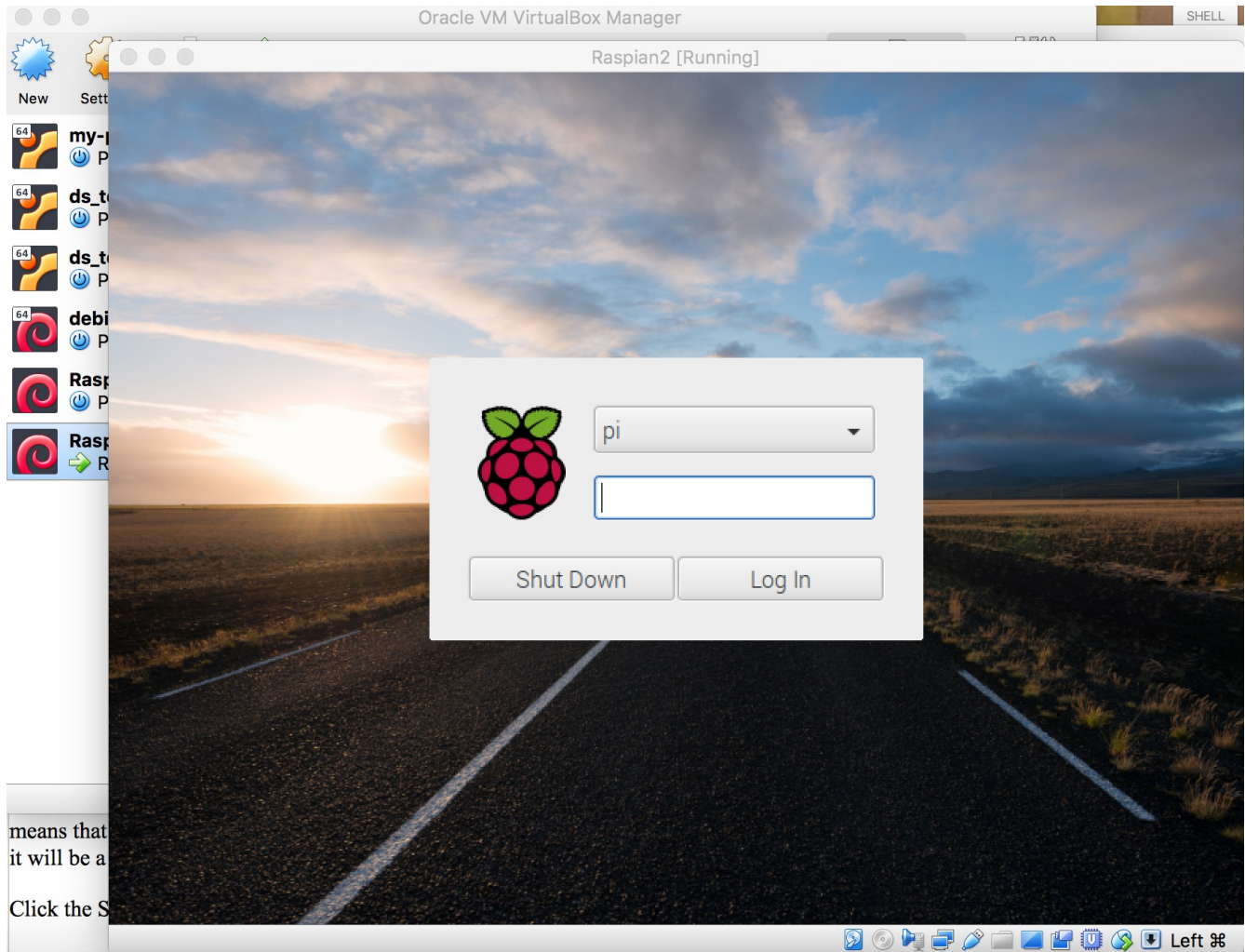
Here's mine:



9. Click on the vdi file and then click Open. Then click Create. Don't worry about the 500GB – that means that your virtual disk COULD grow to 500GB if you go crazy with adding stuff, but in practice it will be a whole lot smaller.

10. Click the Start arrow/button to boot the machine.

If everything goes well, and after you wait through a couple of scary-looking screens, you should see the initial Raspian GUI, like this:

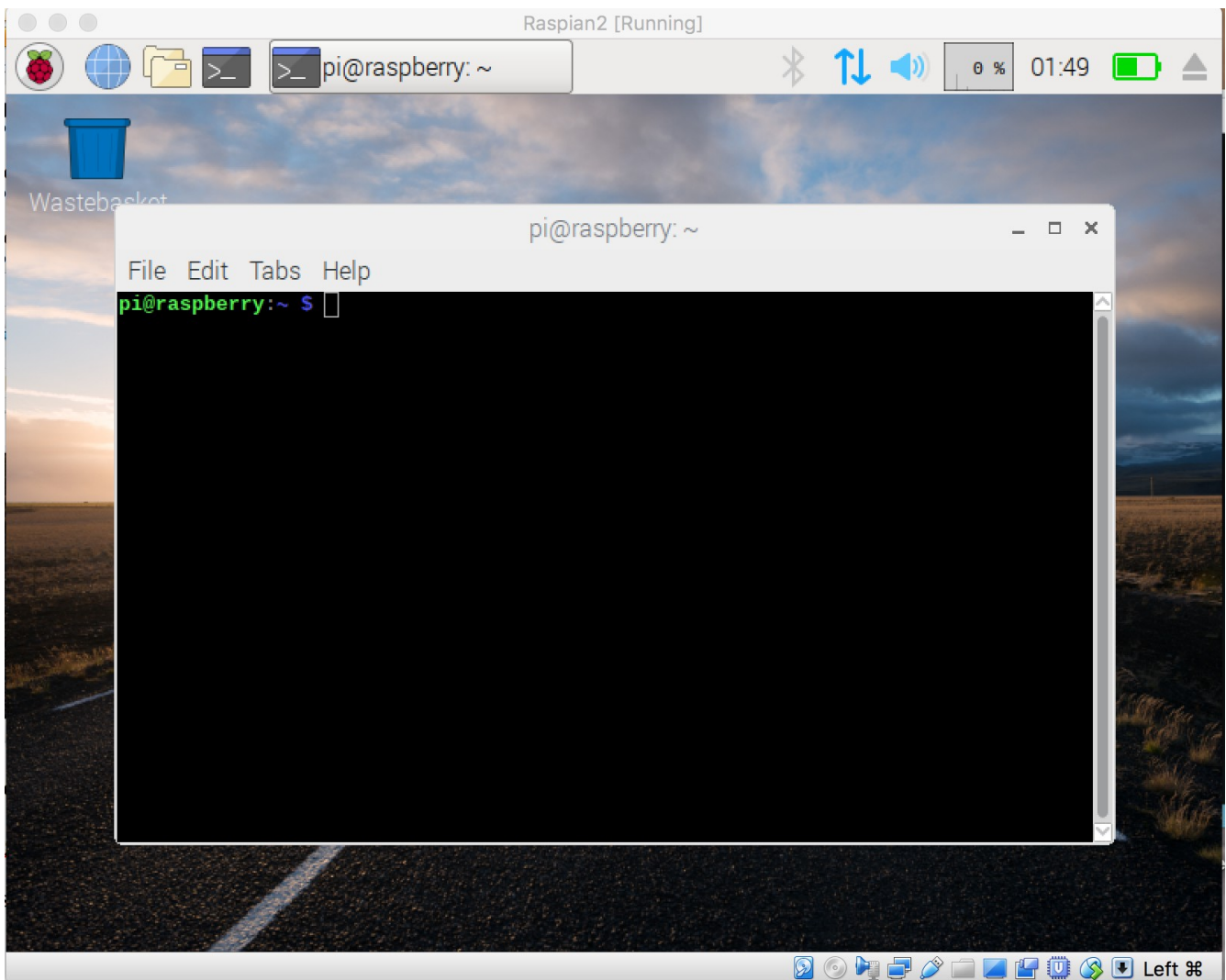


11. The password is:

osboxes.org

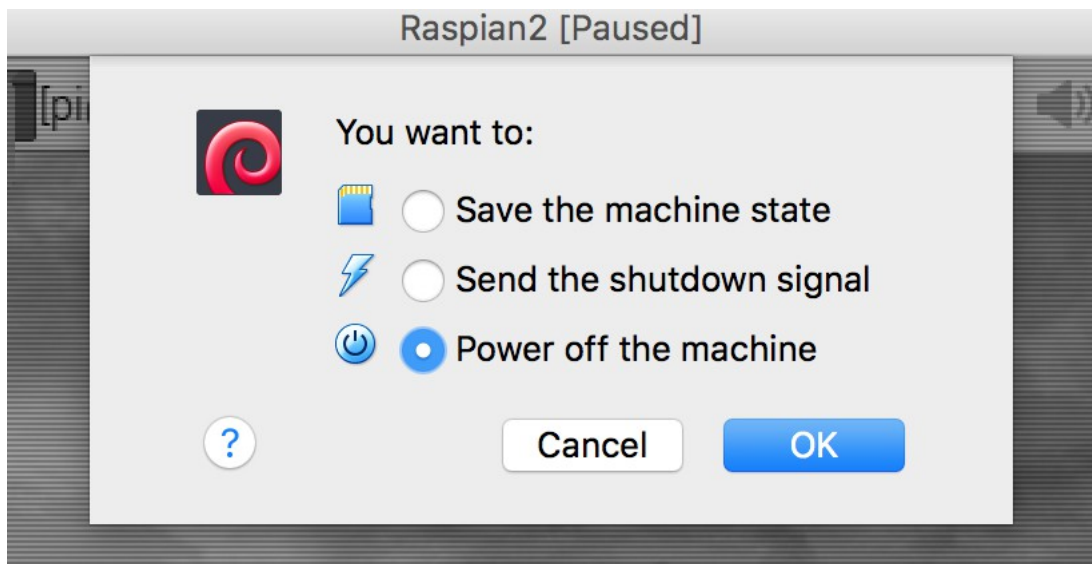
You can change it if you like, but you are responsible for remembering it.

After you successfully log in, and click on the terminal icon, you should see this:



That's the terminal command line we'll be learning to use in this class.

12. To stop the VM when you are done, click the close gadget in the VM window and you'll see this dialog:



13. Select “Save the machine state”, and click OK. The VM will shutdown, saving all your current work, and you will be returned to the virtual box application.