

From GPS and Google Maps to Spatial Computing

Virtual Machine Setup Instruction

Toby J Li

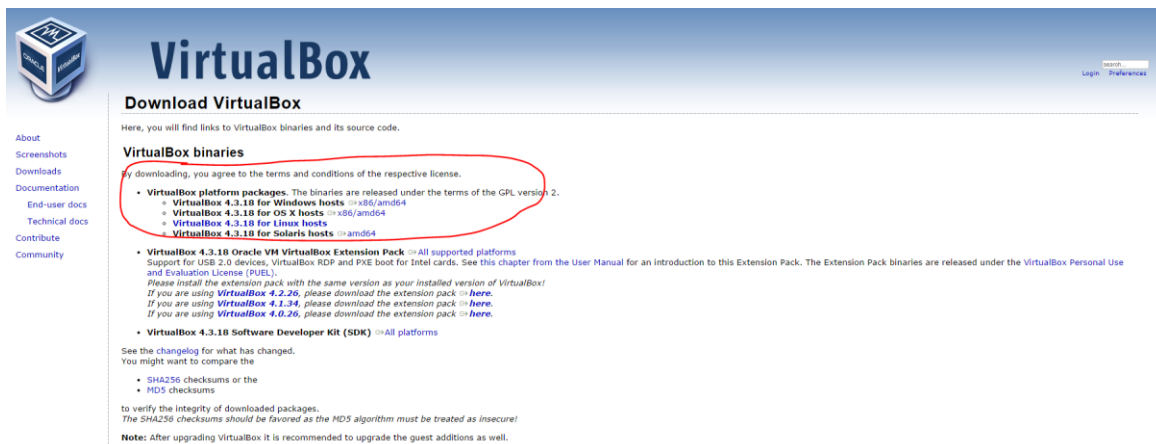
The following instructions will help you set up a virtual machine with the necessary programming environment to complete programming assignments in this course. A demo of how to set up the VM is also featured in the programming assignment instruction video in Module 5.

A virtual machine is like a sandbox, preloaded with an operating system and a programming environment. Anything you do inside the VM won't have any effect on files and systems outside the VM. So, you can feel free to play with the VM without worrying about damage your host. For your VM image, we've installed Ubuntu 14.04 (a light-weight version of Ubuntu), Java 7 JDK, Maven, PostgreSQL, PostGIS, WikiBrain, TileMill and IDEA IntelliJ for you. You are welcome to modify the environment based on your needs (like installing another IDE, or another SQL DBMS), however, we cannot provide any help or technical support in doing so.

This VM image is provided AS IS with ABSOLUTELY NO WARRANTY. We are not liable to anyone for damage arising out of the use or inability to use this VM image.

Step 1: [Download the VM image from the Coursera website](#) Module 5 page and uncompress the package.

Step 2: Download Oracle Virtualbox from [here](#). Choose the version corresponding to your operating system.



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.

- **VirtualBox platform packages.** The binaries are released under the terms of the GPL version 2.
 - [VirtualBox 4.3.18 for Windows hosts](#) → x86/amd64
 - [VirtualBox 4.3.18 for OS X hosts](#) → x86/amd64
 - [VirtualBox 4.3.18 for Linux hosts](#)
 - [VirtualBox 4.3.18 for Solaris hosts](#) → amd64
- **VirtualBox 4.3.18 Oracle VM VirtualBox Extension Pack** → All supported platforms
Support for USB 2.0 devices, VirtualBox RDP and PXE boot for Intel cards. See [this chapter](#) from the User Manual for an introduction to this Extension Pack. The Extension Pack binaries are released under the [VirtualBox Personal Use and Evaluation License \(PUEL\)](#).
Please install the extension pack with the same version as your installed version of VirtualBox!
If you are using **VirtualBox 4.2.26**, please download the extension pack → [here](#).
If you are using **VirtualBox 4.1.34**, please download the extension pack → [here](#).
If you are using **VirtualBox 4.0.26**, please download the extension pack → [here](#).
- **VirtualBox 4.3.18 Software Developer Kit (SDK)** → All platforms

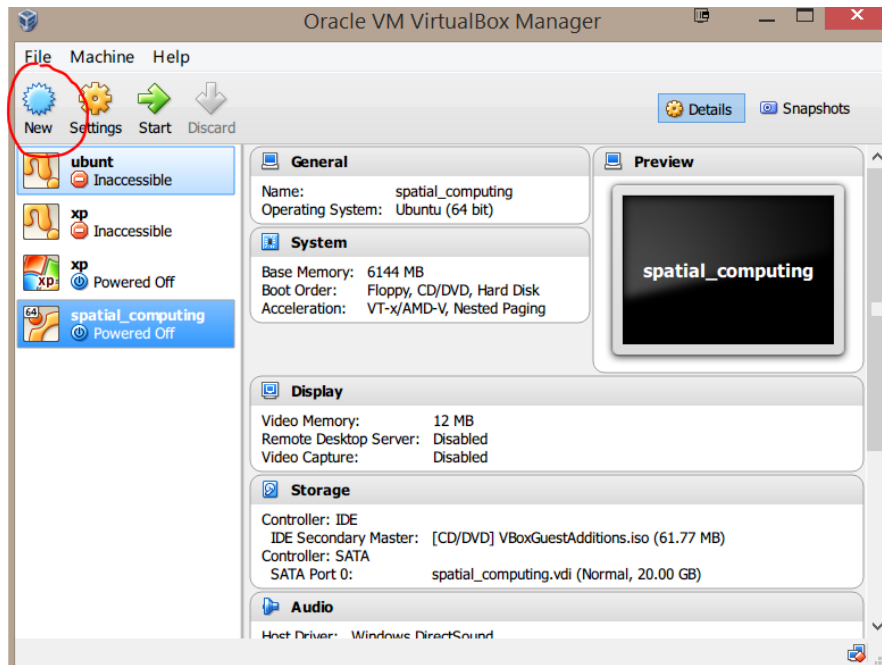
See the [changelog](#) for what has changed.
You might want to compare the

- SHA256 checksums or the
- MD5 checksums

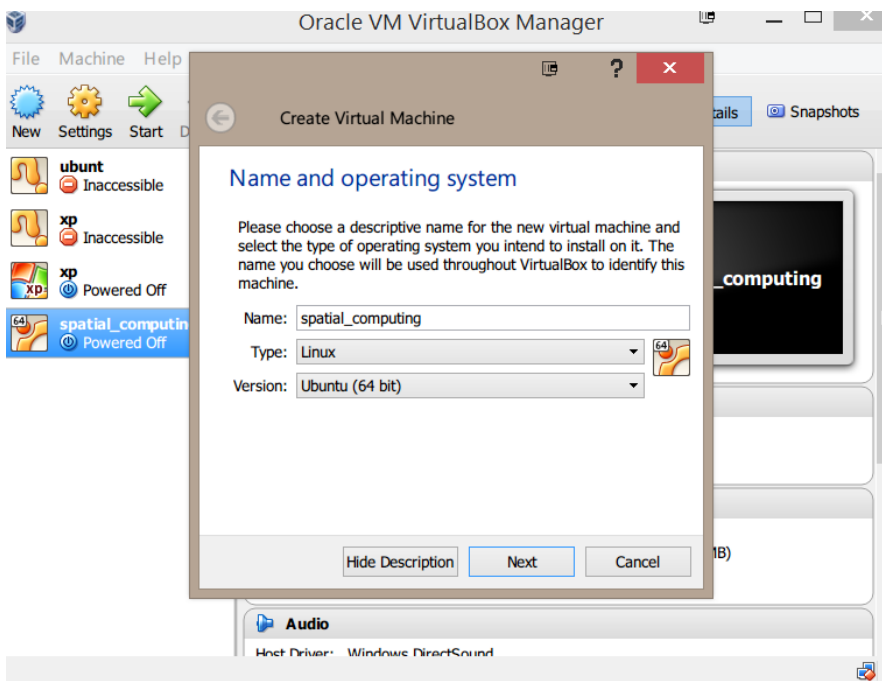
to verify the integrity of downloaded packages.
The SHA256 checksums should be favored as the MD5 algorithm must be treated as insecure!

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

Step 3: Open Virtualbox and click “Create” on the upper left corner.

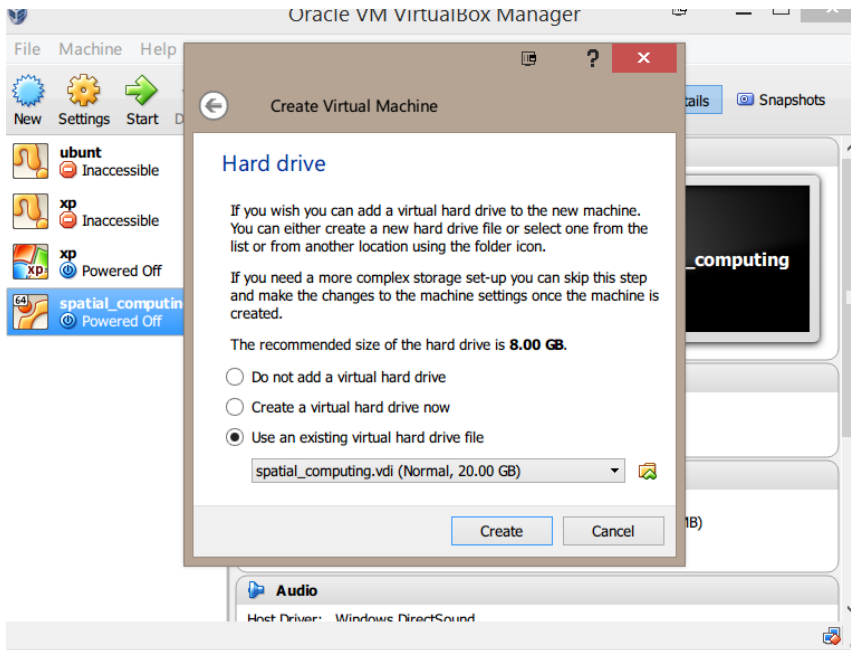


Step 4: Name the VM whatever you like. The type should be “Linux” and the version should be “Ubuntu (64 bit)”.
Enable VT-x (Virtualization) in your BIOS if you can’t see 64-bit option in the menu.

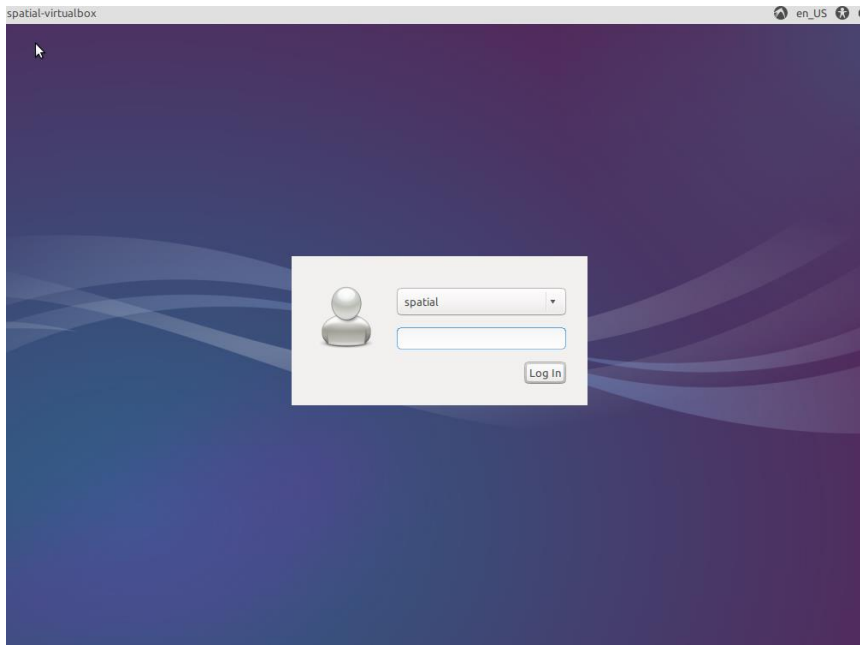


Step 5: Give the VM at least 1GB of memory space.

Step 6: Choose “Use an existing virtual hard drive file” and select the VM image you’ve just downloaded.



Step 7: Start the VM you’ve just installed. **Log in to the system with the username and the password both “spatial”.**



Step 8: Execute “IDEA IntelliJ” on the desktop. WikiBrain should load automatically. Run “QueryExample”, if you are able to see the results coming out, you are ready to go!

