How to install and run Ubuntu with Virtual Box:

1) Download and install VirtualBox -- (https://www.virtualbox.org/wiki/Downloads)

VirtualBox 5.1.32 (released January 15th 2018)

- Windows hosts ⇒x86/AMD64
- OS X hosts ⇒Intel Macs
- Solaris and OpenSolaris hosts ⇒AMD64
- Linux Hosts:
 - Ubuntu 16.10 ("Yakkety") ⇒i386 | ⇒AMD64
 - Ubuntu 16.04 ("Xenial") ⇒i386 | ⇒AMD64

 - Ubuntu 15.10 ("Wily") ⇔i386 | ⇔AMD64
 Ubuntu 14.04 ("Trusty") / 14.10 ("Utopic") / 15.04 ("Vivid") ⇔i386 | ⇔AMD64
 Ubuntu 12.04 ("Precise") ⇔i386 | ⇔AMD64

 - Debian 9 ("Stretch") ⇒i386 | ⇒AMD64
 - Debian 8 ("Jessie") ⇒i386 |⇒AMD64
 - Debian 7 ("Wheezy") ⇒i386 | ⇒AMD64 openSUSE 13.2 ("Harlequin") / Leap 42.1 ("Malachite") ⇒i386 | ⇒AMD64
 - Fedora 26 ⇔i386 | ⇔AMD64
 - Fedora 25 ⇔i386 | ⇔AMD64
 - Fedora 24 ⇔i386 | ⇔AMD64
 - Fedora 22 / 23 ⇒i386 | ⇒AMD64
 - Oracle Linux 7 ("OL7") / Red Hat Enterprise Linux 7 ("RHEL7") / CentOS7 ⇒AMD64
 - Oracle Linux 6 ("OL6") / Red Hat Enterprise Linux 6 ("RHEL6") / CentOS 6 ⇒i386 | ⇒AMD64
 - Oracle Linux 5 ("OL5") / Red Hat Enterprise Linux 5 ("RHEL5") / CentOS 5 ⇒i386 | ⇒AMD64
 - All distributions ⇒i386 | ⇒AMD64

2) Download Ubuntu image file (http://releases.ubuntu.com/16.04/)

There are two images available, each for a different type of computer:

64-bit PC (AMD64) desktop image

Choose this to take full advantage of computers based on the AMD64 or EM64T architecture (e.g., Athlon64, Opteron, EM64T Xeon, Core 2). If you have a non-64-bit processor made by AMD, or if you need full support for 32-bit code, use the i386 images instead. Choose this if you are at all unsure.

32-bit PC (i386) desktop image

For almost all PCs. This includes most machines with Intel/AMD/etc type processors and almost all computers that run Microsoft Windows, as well as newer Apple Macintosh systems based on Intel processors.

3) Windows: Place the file anywhere that is convenient.

4) Open up VirtualBox and either go to Machine-> New or click "New" button in the upper left.



5) Fill the next menu as follows (except the Machine Folder part), and hit next:

		?	\times
← Create Virtua	Machine		
Name and o	operating system		
Please choose a machine and se The name you o machine.	descriptive name and destination folder for the ect the type of operating system you intend to hoose will be used throughout VirtualBox to ide	e new virti install on ntify this	ual it.
Name:	CSE384		
Machine Folder:	C:\Users\Reyhaneh\VirtualBox VMs		\sim
Type:	Linux	•	⁶⁴
Version:	Ubuntu (64-bit)	•	
	Expert Mode Next	Can	cel

6) You will be prompted to allocate memory for your virtual machine the default/recommend amount is 1024MB. (You can change this later if you need) After deciding, hit next.

7) Now choose the second option "Create a virtual hard disk now" and hit create.

	?	×								
← Create Virtual Machine										
Hard disk										
If you wish you can add a virtual hard disk to the new machin create a new hard disk file or select one from the list or from a using the folder icon.	e. You can another loc	either ation								
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.										
The recommended size of the hard disk is 32.00 GB .										
O Do not add a virtual hard disk										
Oreate a virtual hard disk now										
Use an existing virtual hard disk file										
CSE384.vdi (Normal, 20.00 GB)		-								
Create	Car	ncel								

8) Then select VDI and hit next.

	?	\times
 Create Virtual Hard Disk 		
Hard disk file type		
Please choose the type of file that you would like to use for hard disk. If you do not need to use it with other virtualizat can leave this setting unchanged.	the new vir ion software	tual you
VDI (VirtualBox Disk Image)		
O VHD (Virtual Hard Disk)		
O VMDK (Virtual Machine Disk)		
Expert Mode Next	Ca	ancel

8) Then select "Dynamically allocated" and hit next.

	?	×
← Create Virtual Hard Disk		
Storage on physical hard disk		
Please choose whether the new virtual hard disk file should grow (dynamically allocated) or if it should be created at its maximum s size).	as it is u ize (fixe	used d
A dynamically allocated hard disk file will only use space on y hard disk as it fills up (up to a maximum fixed size), although it w again automatically when space on it is freed.	our phy: will not s	sical hrink
A fixed size hard disk file may take longer to create on some sy often faster to use.	stems bi	utis
Oynamically allocated		
○ Fixed size		
Next	Car	icel

9) Then select maximum amount of data that that your virtual machine can store and hit create.

		?	×
←	Create Virtual Hard Disk		
	File location and size		
	Please type the name of the new virtual hard disk file into the be on the folder icon to select a different folder to create the file in	ox below	or click
	CSE384] 🗔 🛛
	Select the size of the virtual hard disk in megabytes. This size is amount of file data that a virtual machine will be able to store or	the limit 1 the har	on the d disk.
		20	0.00 GB
	4.00 MB 2.00 TB		
	Create	Car	ncel

10) In this step the virtual machine is created. You should start it as is shown in the following picture.



11) Navigate to the folder that you downloaded Ubuntu image and hit start. Now you can start installing Ubuntu.

🌠 CSE384 [Powered Off] - Ora	cle VM Virtu	IalBox							\times
File Machine View Input	Devices	Help							
You have the Auto capture key	/board optio	n turned on	ı. This will ca	ause the Virt	tual Mac	hine to au	tomatically (apture	8 🕅
					?	×			
~	Select st	art-up disk							
	Please sele drive conta from.	ct a virtual d iining a disk	optical disk to start you	file or a phy ur new virtu	sical opt al machir	ical ne			
	The disk sh should con the virtual be ejected switch the yourself if	ould be suit tain the ope machine if y from the vir virtual mach needed usin	able for sta rating syste you want to rtual drive a nine off, but ng the Device	nting a comp em you wish do that nov automatically t you can als ces menu.	outer fro to insta v. The di v next tir so do thi	m and II on sk will me you s			
	ubuntu-16	.04.5-deskto	op-amd64 (1).iso (1.54	GB) 🔻	- 😞			
				Start	Can	ncel			
10/19/2018 5:17 PM	Applica	tion	20	206 KB	00 🗗	<u>/</u>	■ 🖁 🖾 🤇	🖗 🛃 Rigl	ht Ctrl

12) Click on install Ubuntu.



14) Click on the first choice and hit continue.

Machine View Input	t Devices Help	
ve the Auto capture key	yboard option turned on. This will cause the Virtual Machine to automatically capture the keyboard every time the VM window is activated and make it unavailable to other applications running on your host machine: when the keyboard is	3 %
tual Machine reports that t	he guest OS supports mouse pointer integration. This means that you do not need to capture the mouse pointer to be able to use it in your guest OS all mouse actions you perform when the mouse pointer is over the Virtual	88
	Install (as superuser)	
	Preparing to install Ubuntu	
	C Download updates while installing Ubuntu	
	This saves time after installation. Install third-party software for graphics and Wi-Fi hardware, Flash, MP3 and other media	
	This software is subject to license terms included with its documentation. Some is proprietary.	
	Fluendo MP3 plugin includes MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Technicolor SA.	
	Quit Back Continue	

15) Click on the first choice and hit install now. Then follow the steps as it is shown in the following pictures:





CIS300 [Running] - Oracle VM VirtualBox File Machine View Input Devices Help	
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically 4	capture the keyboard every time the VM window is activated and make it unavailable to other applications running on your host machine: when the keyboard is 🔘 🚫
The Virtual Machine reports that the guest OS supports mouse pointer integration. This means that you do	o not need to capture the mouse pointer to be able to use it in your guest OS all mouse actions you perform when the mouse pointer is over the Virtual 🛛 🔞
Install (as superuser)	
Keyboard layout	
Choose your keyboard layout:	
English (Chana) English (Nigeria) English (South Africa) English (UK) English (UK) Esperanto Esperanto Estonian Faroese Filipino	English (US) English (US) - Cherokee English (US) - English (Colemak) English (US) - English (Dvorak alternative international no dead keys) English (US) - English (Dvorak, international with dead keys) English (US) - English (Macintosh) English (US) - English (Macintosh) English (US) - English (Programmer Dvorak) English (US) - English (US, alternative international)
Type here to test your keyboard	
Detect Keyboard Layout	Back Continue
	•••••
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16) In this step, you should choose your username and password.

S CIS300 [Running] - Oracle VM VirtualBox	
File Machine View Input Devices Help	
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically capture the	keyboard every time the VM window is activated and make it unavailable to other applications running on your host machine: when the keyboard is 🙆 🕅
The Virtual Machine reports that the guest OS supports mouse pointer integration. This means that you do not need to	capiture the mouse pointer to be able to use it in your guest OS all mouse actions you perform when the mouse pointer is over the Virtual
Install (as superuser)	
Who are you?	
Your name: Your computer's name: T Pick a username: Choose a password: Confirm your password: C	Reyhaneh reyhaneh-VirtualBox Ite name it uses when it talks to other computers. reyhaneh Good password Good password Log in automatically Require my password to log in Encrypt my home folder
	Back Continue

17) This step takes some minutes to install Ubuntu. After installation the system restarts and you can log in with your username and password.



CIS300 [Ru	n <mark>ning]</mark> - Or	acle VM V	irtualBo	оx									F 34	-	(- 10	1.00	-												l	- 0	1 23
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You have the	Auto captu	re keybo	ard opt	ion turn	ed on. Tl	his will ca	ause the	Virtual I	Machine	to auton	natically	captur	e the ke	yboard e	every tim	e the VM	window	is activa	ated and	make it	unavailal	ble to ot	ner appli	ations r	unning o	n your h	ost macł	nine: wh	en the ke	yboard i	s 🙁 📎
The Virtual Ma	chine report	s that the g	uest OS	suppor	ts mou	se poin	ter inte	gratio	n. This m	eans tha	at you di	o not ne	ed to <i>ca</i> ,	<i>oture</i> the	e mouse	pointer t	o be able	e to use	it in you	r guest C	DS all n	nouse ac	tions you	perform	n when t	he mous	e pointe	r is over	the Virtu	al	8
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