# Debian Linux Distribution Installation Report

The installation process of a virtual machine contains many steps that factor into how your machine operates and where the installation is located. In my installation report, I will be installing a Debian distribution virtual machine using Oracle VM VirtualBox, and documenting the steps taken to correctly install this machine with proper setup. Throughout and after the installation, I will also be changing the hostname, running the ping command, and running the fork bomb command to crash the system.

A screenshot of a computer

Description automatically generated

* The first step that was taken to install the Debian virtual machine was going to Debian.org and navigating to the download section to create a download of the machine’s iso image to my system. With this download, I will be able to create and run a Debian Linux distribution using the Oracle VM VirtualBox hypervisor.

A computer screen shot of a computer screen

Description automatically generated

* After installing a file of the Debian virtual machine to my system, I drag the iso image file from my file explorer to my desktop to easily navigate to it through my hypervisor. Using the Oracle VM VirtualBox hypervisor, I selected to create a new virtual machine. In this step, I am asked to create a name for the machine, select a location to store this folder, and add the iso image of the Linux distribution I am using which is Debian. I give the machine a simple name to know it’s mine, and I select the desktop to store the folder for the machine. Also, I can navigate easily to the iso image to add it for the machine since it was on my desktop.

A computer screen shot of a computer

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* The next step in the installation process is to create a username and password for the account of my virtual machine which is what I will use to log in. Here I am also able to change the hostname as stated for one of the things I will be doing to KIANMOJAMI. I also keep the default domain name and can move on to the next step.

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* After creating a username and password and changing the hostname, I am asked to specify the base memory and cores I want to use for this virtual machine. Since I will not be doing much other than running a couple of commands, I keep these options defaulted. If I were to use this machine for higher-priority tasks that use up lots of storage and put more strain on the computer, I would increase both numbers. After that, I also created a virtual hard disk to store the machine in because I did not already have one created. I also use the default option here because I do not have too much allocated to it, and I do not plan to store a lot in it.

A computer screen shot of a computer screen

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* When I am done going through all these steps, I am shown a summary of the steps that were taken to install this machine. I am shown each selection I made for each step, and I can go through each one to make sure everything is exactly what I want it to be. After I have made sure each selection is what I want it to be, I can click to finish it and I have now created my virtual machine.

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* The virtual machine I have created is now able to be booted in the Oracle VM VirtualBox hypervisor by selecting it and clicking start. After startup, I am put through an installation process to fully install the Debian distribution of Linux which will allow me to fully use it. This step takes about 10-15 minutes, and it will reboot your system once it is fully finished installing everything.

A screenshot of a computer

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* Once the installation process is complete, I can log in to my Debian virtual machine using the username and password I had created in the earlier steps of installation. After logging in, I go through some steps for setup, and I can fully use the Debian virtual machine.

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* The last step of the setup process is selecting the language of my system and keyboard, choosing if I want to share location and data, and connecting any of my accounts that I want to share. After these short steps, the setup process is fully complete, and I am now able to start using my Debian virtual machine.

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* As stated in a previous step of installation, I wanted to change the hostname of the virtual machine to KIANMOJAMI. I did that when installing the machine, and I can verify that this change worked by opening the command terminal and looking after the @ which verifies that it worked. Using the command terminal, I can also run the ping and fork bomb command here.

A screenshot of a computer

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* The first command I want to run is the ping command to send pings with bytes of data from my IP address to the IP address of nvcc.edu. I type the command with -c 4 to create a count of 4 pings to nvcc.edu. The command was successful and each of the four pings were able to be successfully transmitted and received with zero percent packet loss.

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* The second command I want to run is the fork bomb command which is commonly used as a denial-of-service attack that crashes the system of a computer. Using the command :(){ :|:& };: I can send a successful fork bomb to the system of my virtual machine which will eventually crash the whole system. The second screenshot shows what happens to the terminal after using this command which slows down the whole system until restarted, or the command is stopped.

The process to install a virtual machine to my system involves a moderate number of steps that aren’t too difficult to navigate which makes the process enjoyable for average users. I was able to successfully install and use a Debian distribution of Linux using the Oracle VM VirtualBox hypervisor. Throughout the installation, I was able to change the hostname of the machine to KIANMOJAMI which was verified through the command terminal. Also in the command terminal, I was able to successfully run the ping command to send pings to nvcc.edu with zero percent packet loss, and the fork bomb command to crash my system.