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| --- | --- | --- | --- | --- | --- | --- | --- |
| Test ID | Step | Test Description | Procedure | Input | Expected Result | Actual Output | Pass or Fail (P/F) |
| 1 | 0 | Download redhat linux (RHEL 7.7 or newer) |  |  |  |  |  |
| 1 | 1 |  | Go to the redhat linux website and download the RHEL 7.7 | <https://www.redhat.com/en/technologies/linux-platforms/enterprise-linux> | The Redhat download website will load |  |  |
| 1 | 2 |  | Click the Download button under the Enterprise version | Button Click for the boot-dvd | RHEL will start the download |  |  |
| Test ID | Step | Test Description | Procedure | Input | Expected Result | Actual Output | Pass or Fail (P/F) |
| 2 | 0 | Install VirtualBox 6.0 |  |  |  |  |  |
| 2 | 1 |  | Go to VirtualBox website | <https://www.virtualbox.org/wiki/Downloads> | The VirtualBox 6.0 download website will load |  |  |
| 2 | 2 |  | Download VirtualBox |  | VirtualBox start downloading |  |  |
| 2 | 3 |  | Install VirtualBox | Find in home os file system (Should be in the download folder) and follow the installation process. | When finish should say install complete. |  |  |
| Test ID | Step | Test Description | Procedure | Input | Expected Result | Actual Output | Pass or Fail (P/F) |
| 3 | 0 | Installing Redhat via VirtualBox |  |  |  |  |  |
| 3 | 1 |  | Open VirtualBox and hit New |  | Open a window “Create Virtual Machine,” asking for the name of the virtual machine, where to save the virtual machine, the type, and version. |  |  |
| 3 | 2 |  | In “Create Virtual Machine” window | In name, name your machine. (If the name is redhat, the type and version will change accordingly). Hit Next | The page will change and ask for memory size |  |  |
| 3 | 3 |  | In Memory Size page | Give a good amount of Memory so that your home OS can run as well. Hit Next. | The page will change Hard Disk |  |  |
| 3 | 4 |  | In Hard Disk page | Select “Create a virtual hard disk now.” Hit create. | A new window will appear “Hard disk file type” |  |  |
| 3 | 5 |  | In window “Hard Disk file type” | Select “VHD (Virtual Hard Disk)” and hit Expert Mode | The page will change and ask for storage space allocation |  |  |
| 3 | 6 |  | In the current page | Allocate 20 GB under File Size slider, Select “VHD (Virtual Hard Disk)” under Hard disk file type, select “Dynamically allocated” under Storage on a physical hard disk. Hit Create. | A new machine with the name you have given will appear on the left column. |  |  |
| 3 | 7 |  | In the VirtualBox main menu | Open your machine. | Open a new window “Select start-up disk”, asking for an OS to emulate. |  |  |
| 3 | 8 |  | In “Select start-up disk” window | Hit the folder with the green up-arrow, select the RedHat os, and hit Start | The RedHat install process will start. |  |  |
| 3 | 9 |  | Wait till the RedHat will ask you for your language preference. | Select your language preference. Hit Next. | The page will change to see the file source, network, hard disk storage, and many more.. |  |  |
| 3 | 10 |  | In the current page, there should be one error for the storage location. | The select storage location option | Open the setting for storage for the storage location. |  |  |
| 3 | 11 |  | In storage location | Select the hard drive (The hard drive space is the same amount that you gave to the machine). Leave the page. | Be sent to the main page. |  | If you can not go back then it could be that the size you gave it during setting up the virtual machine is too small. |
| 3 | 12 |  | In Main page of Before Install | Set up the internet connection. | Allows you to connect you to the internet after install process. |  |  |
| 3 | 13 |  | In Main page of Before Install | After all issues are settled. Click Install. | The install process will start. |  |  |
| 3 | 14 |  | In the install page | Create the user account and root account | Wait till install is finished. |  |  |
| 3 | 15 |  | When install is finished. | Hit Reboot. Close the window of the virtual Machine. | The machine window will close. |  |  |
| 3 | 16 |  | In window of VirtualBox | Go to the setting of the machine, go to storage, remove the RedHat OS boot-dvd from the CD drive. | When you restart the machine, it load the login window and not the install window. |  |  |
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| 4 | 0 | Download Motif and x11 packages in redhat linux |  |  |  |  |  |
| 4 | 1 |  | Open the terminal in Redhat | Type “subscription-manager register” and provide your redhat credential (The ones you used to get the redhat os) | Should print out “System is register with account [username]” |  |  |
| 4 | 2 |  | In the same terminal | Type ”subscription-manager attach --auto” | Print out the repository that you are subscribed to. |  |  |
| 4 | 3 |  | In the same terminal | Type “sudo yum install \*x11\* and next your credential for the account of the os. | Print that all package were successfully downloaded. |  |  |
| 4 | 4 |  | In the same terminal | Type “sudo yum install \*motif\* and next your credential for the account of the os. | Print that all package were successfully downloaded. |  |  |
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| 5 | 0 | Installing Google Test |  |  |  |  |  |
| 5 | 1 |  | In the terminal window as a user. | Type “sudo yum install \*make\*” | Install successfully. |  |  |
| 5 | 2 |  | In the terminal window as a user. | Type “sudo yum install \*openssl\*” | Install successfully. |  |  |
| 5 | 3 |  | Install Cmake in redhat | Go to Cmake download page in your virtual machine  <https://cmake.org/download/> | Load the download page of Cmake.org |  |  |
| 5 | 4 |  | Download Cmake | Click the tar.gz file of the latest version of cmake | Download the cmake folder. |  |  |
| 5 | 5 |  | Extract the files of Cmake | Depend on your redhat OS, it either going to ask you where to extract the files or where to save the tar.gz file. Either way extract the files. | The files are extracted. |  |  |
| 5 | 6 |  | After you extracted the files | Go to the folder with the extracted files. | Be in Cmake folder |  |  |
| 5 | 7 |  | In the Cmake folder | Open the terminal at the Cmake directory. | The current working directory is the Cmake extracted file |  |  |
| 5 | 8 |  | In Cmake directory in the terminal | Type “./configure” | Successful operation. |  |  |
| 5 | 9 |  | After the command ``./configure” | Install cmake | Successful operation. |  |  |
| 5 | 9\* |  | After the command  “./bootstrap” | Install all necessary libraries for cmake | Successful operation |  |  |
| 5 | 10 |  | Download the GoogleTest from GitHub | Go to <https://github.com/google/googletest> and download the zip file | Download successful in the redhat environment. |  |  |
| 5 | 11 |  | Extract File of Google Test | Depend on your redhat OS, it either going to ask you where to extract the files or where to save the tar.gz file. Either way extract the files. | The files are extracted. |  |  |
| 5 | 12 |  | Open the GoogleTest in the terminal | In the terminal have the current directory be the google test extracted files | The current directory is where you put the extracted files. |  |  |
| 5 | 13 |  |  |  |  |  |  |
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