**Cloud Computing Lab**

**Nayab Khazin**

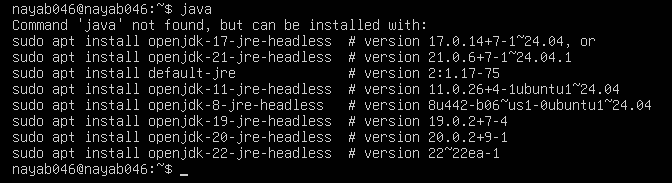
**BSE-V B**

**2023-BSE-046**

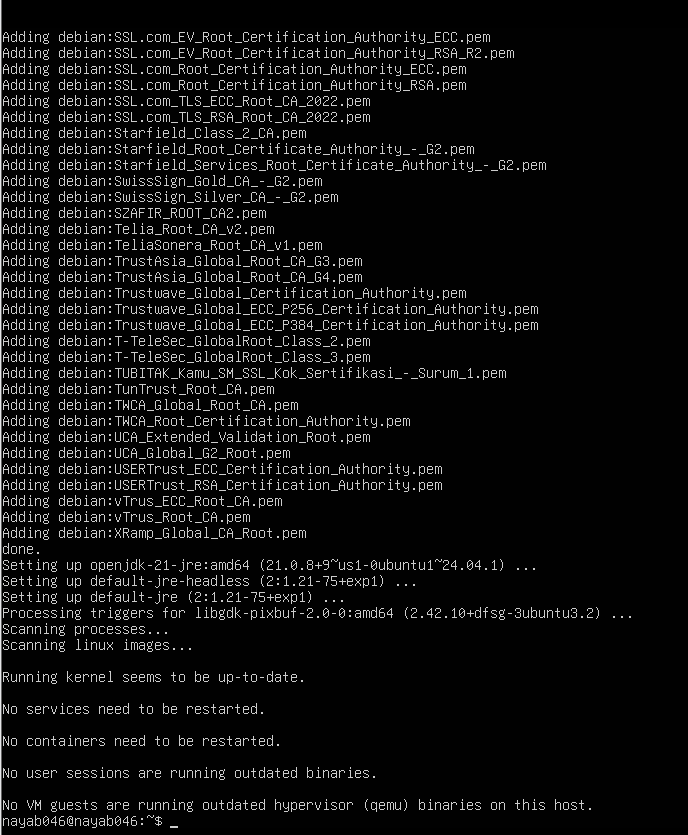
**LAB 05**

**Task 1 - Discover missing command & install Java using apt suggestion**

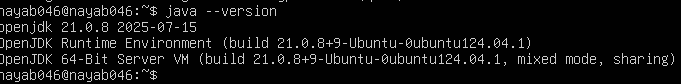
* task1\_java\_suggestion.png



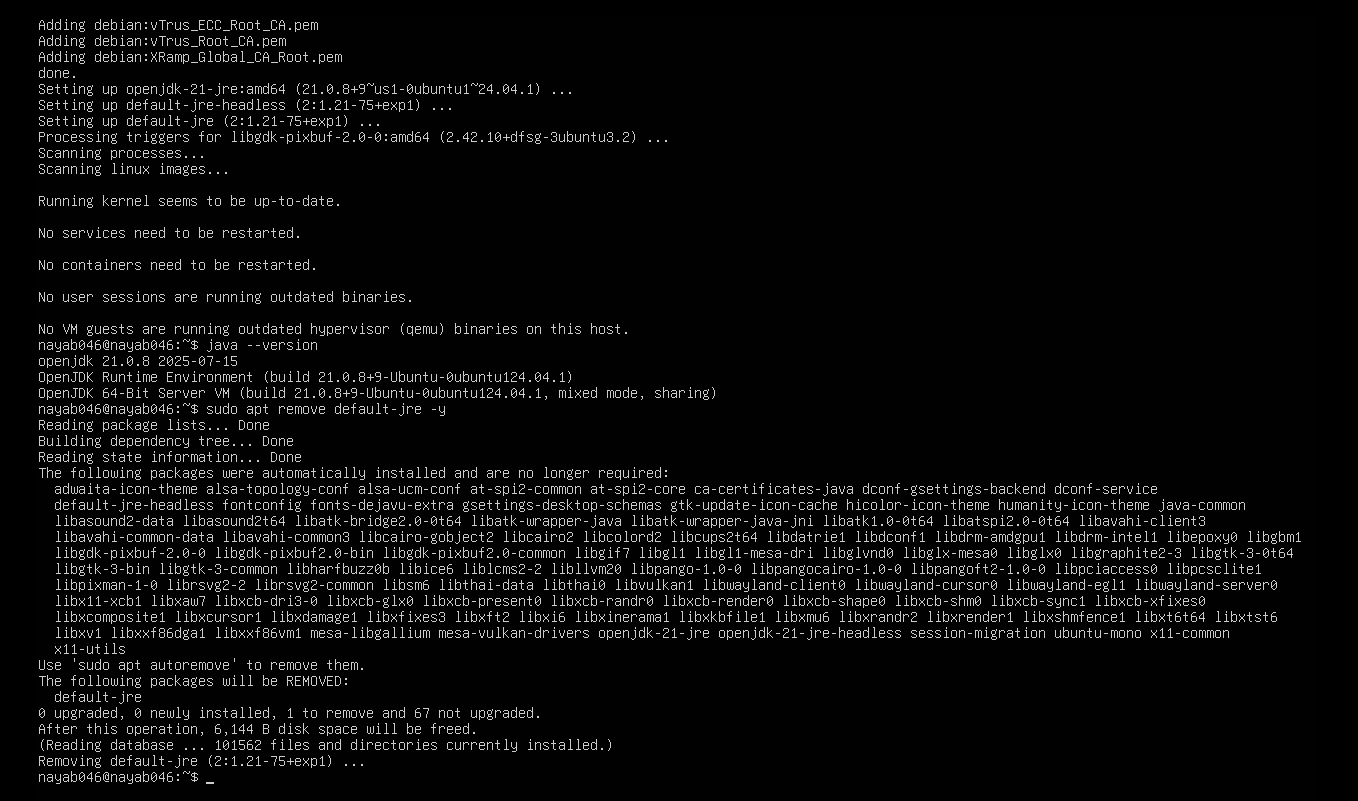
* task1\_java\_install.png



* task1\_java\_version.png



* task1\_java\_remove.png



* task1\_java\_not\_found.png

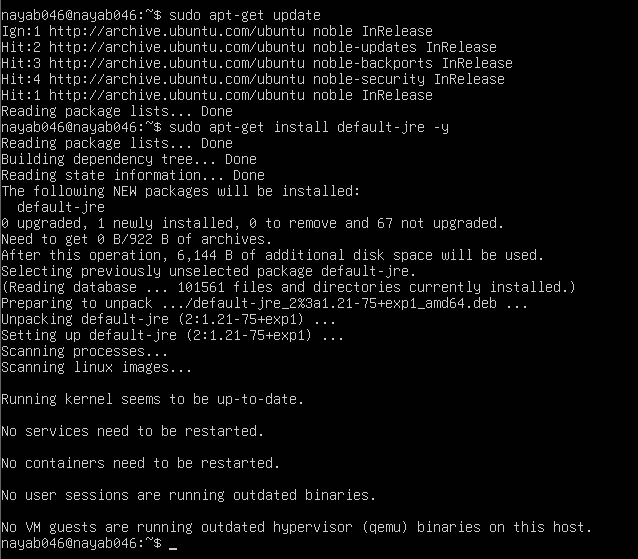


* task1\_hash\_clear.png

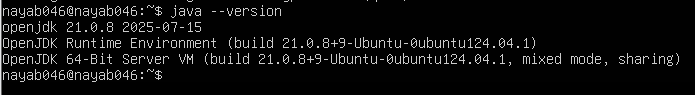


## Task 2 - Install & remove Java using apt-get (explicitly)

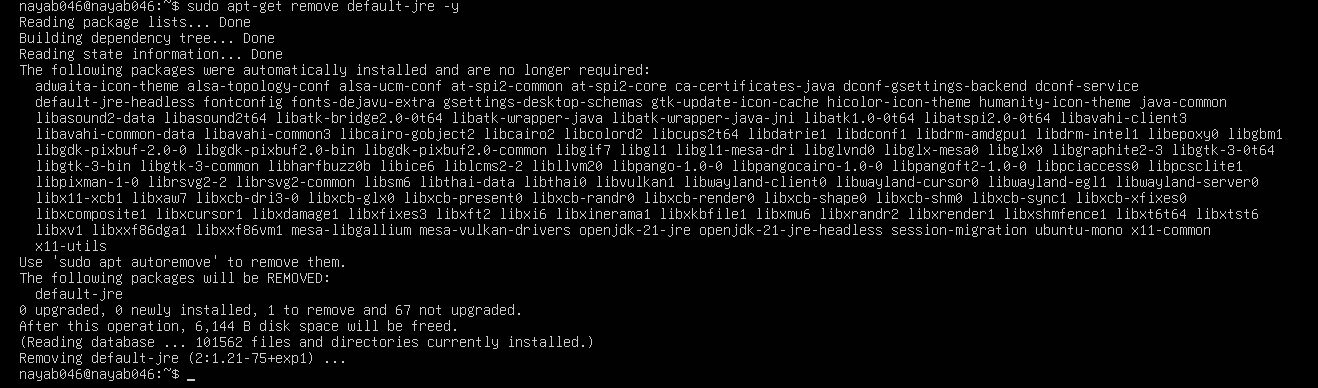
* task2\_aptget\_install.png



* task2\_java\_version\_after\_aptget.png



* task2\_aptget\_remove.png

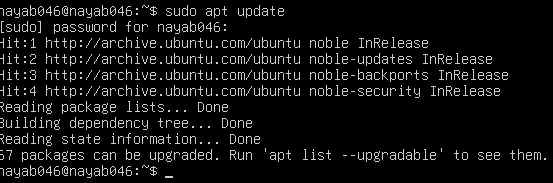


* task2\_hash\_after\_remove.png

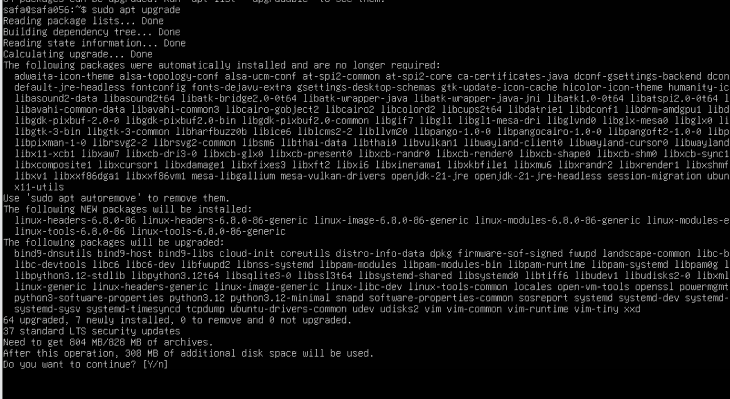


## Task 3 - apt update vs apt upgrade - run & explain

* task3\_apt\_update.png



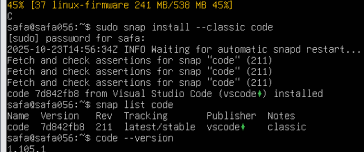
* task3\_apt\_upgrade.png



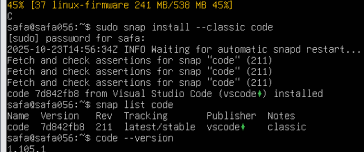
task3\_explanation.png

## Task 4 - Install Visual Studio Code via snap on CLI and verify (DO NOT remove Code)

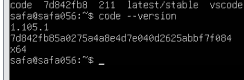
* task4\_snap\_install.png



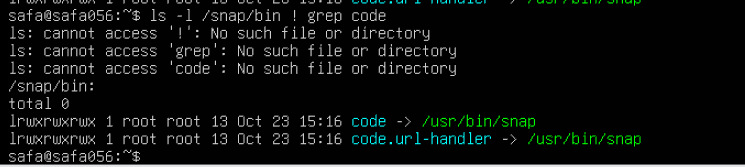
* task4\_snap\_list.png



* task4\_code\_version\_or\_info.png



* task4\_snap\_bin\_location.png

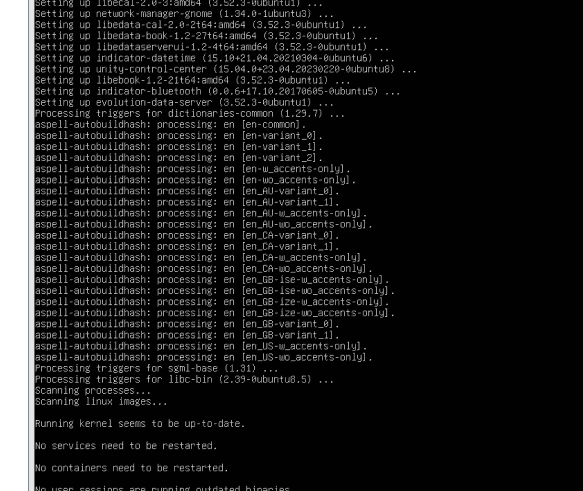


## Task 5 - Install XFCE GUI + XRDP - minimal desktop and remote access (GUI) and launch VS Code

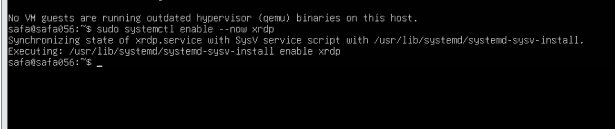
* task5\_update.png



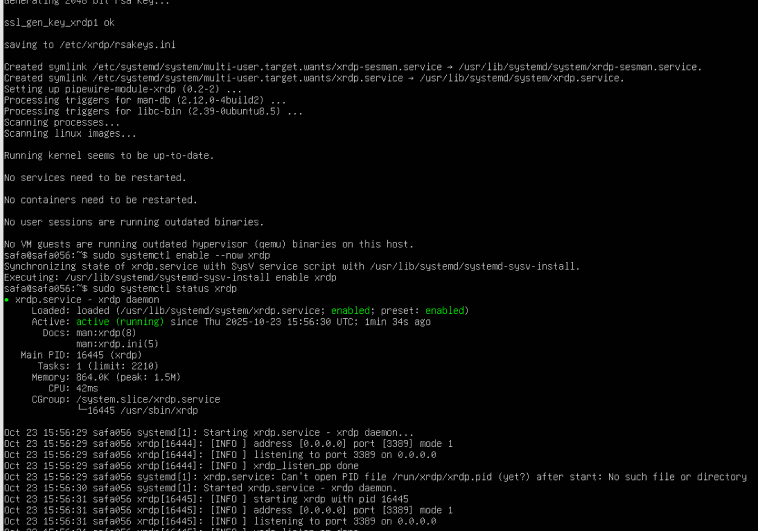
* task5\_xfce\_install.pn



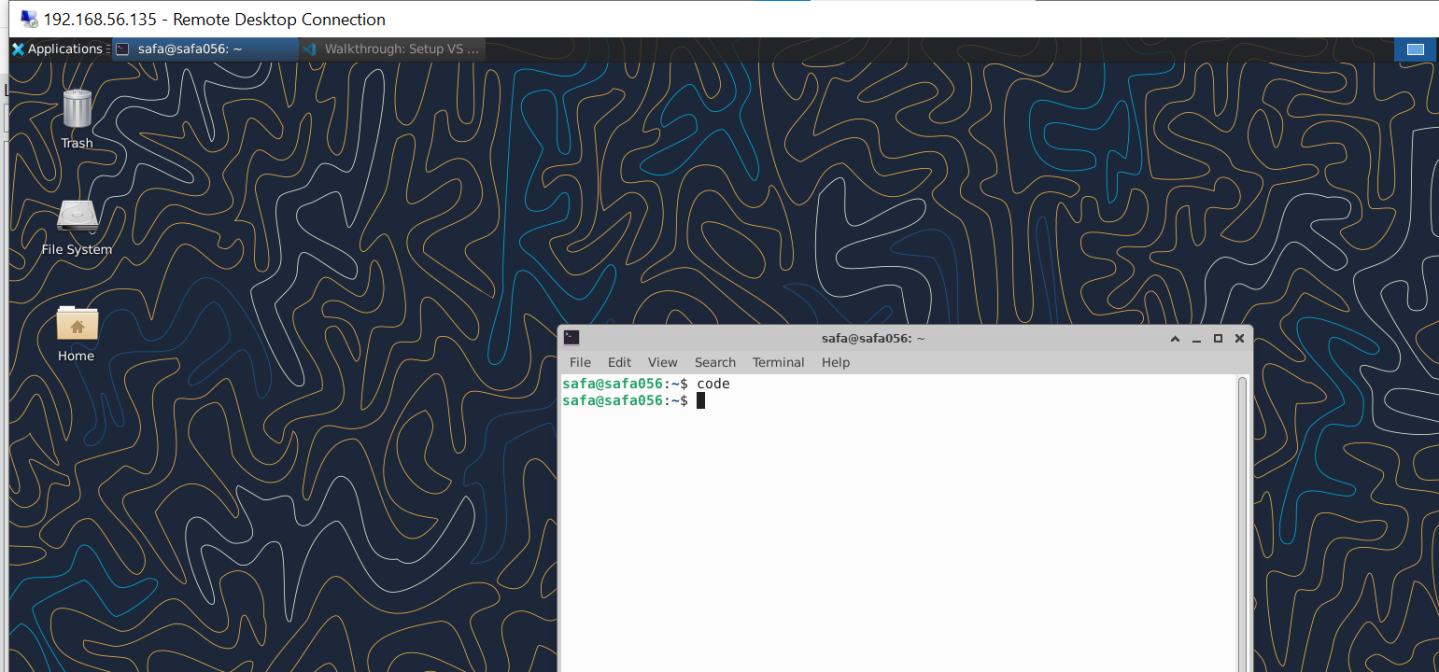
* task5\_xrdp\_enable.png



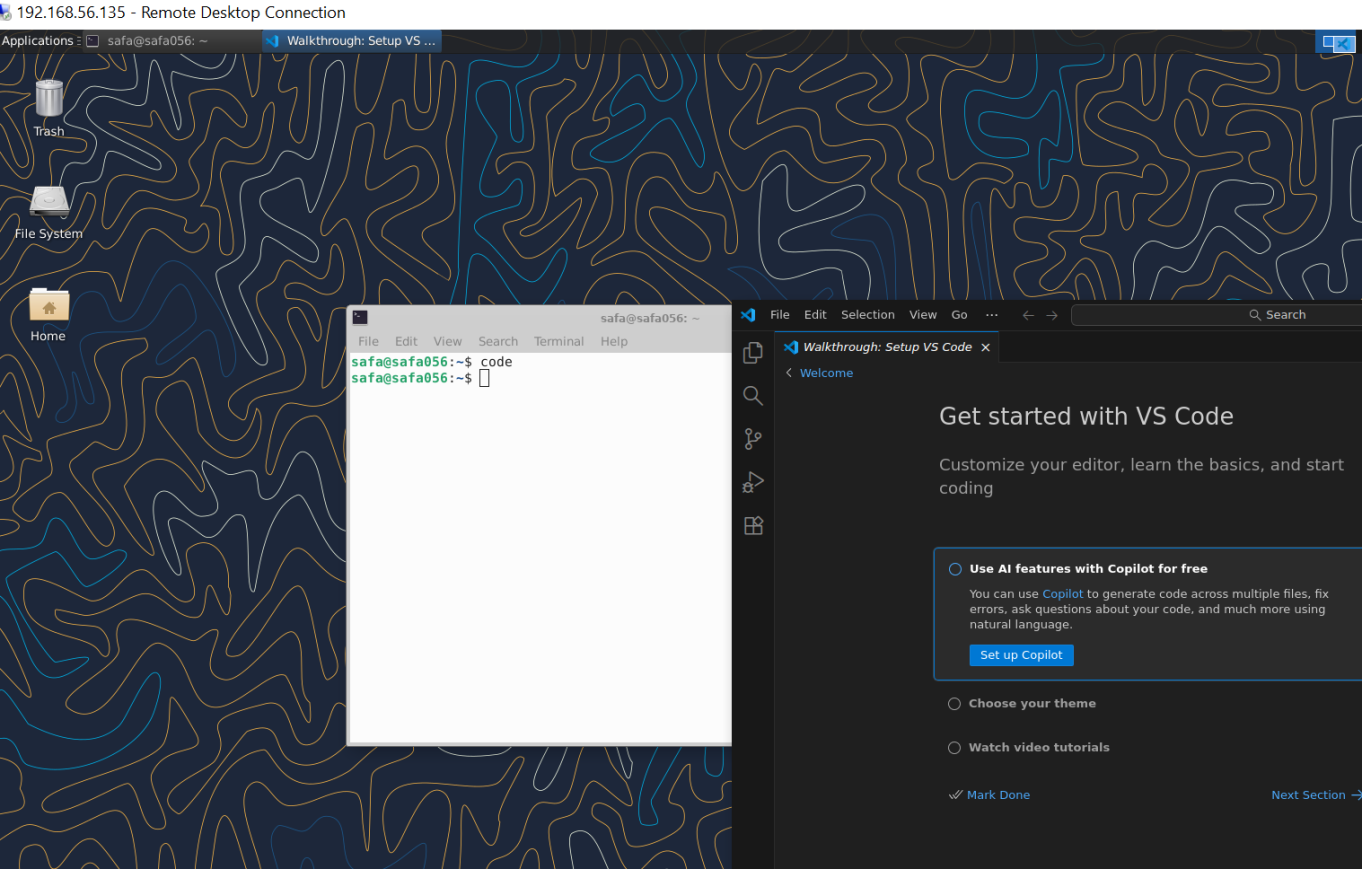
* task5\_xrdp\_status.png



* task5\_rdp\_connect.png

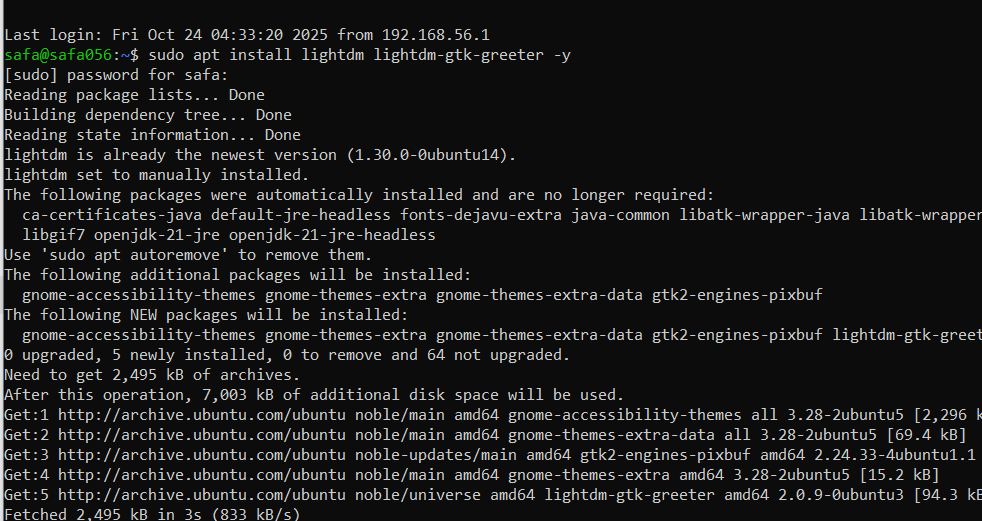


* task5\_vscode\_launch.png

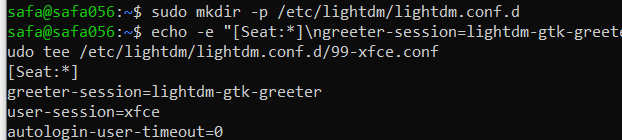


## Task 6 - Install lightdm-gtk-greeter and GUI verification - start GUI, open VS Code, take snapshot, then end (GUI)

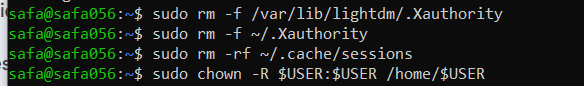
* task6\_lightdm\_install.png



* task6\_lightdm\_config.png



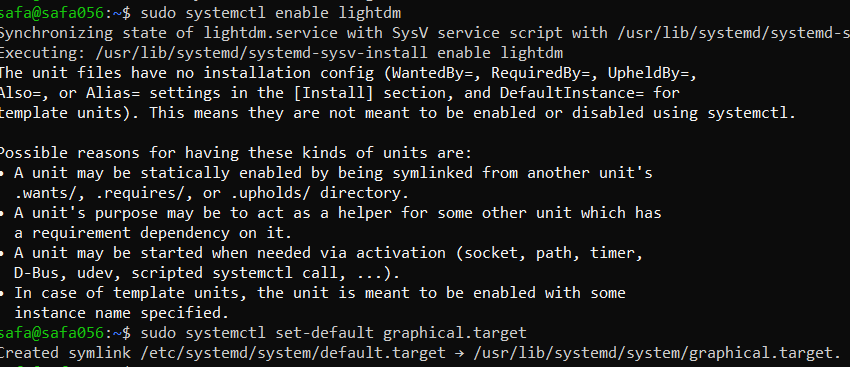
* task6\_lightdm\_cleanup.png



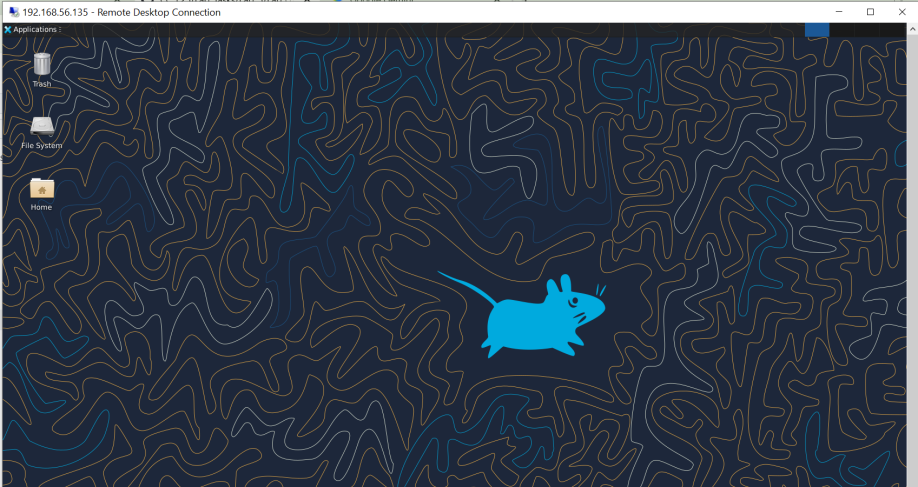
* task6\_lightdm\_restart.png



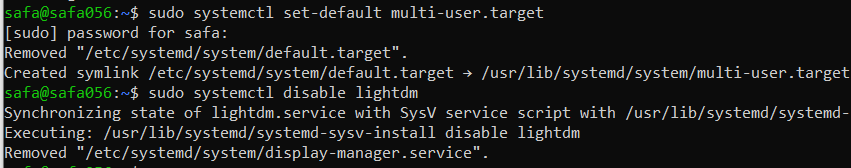
* task6\_gui\_enable\_boot.png



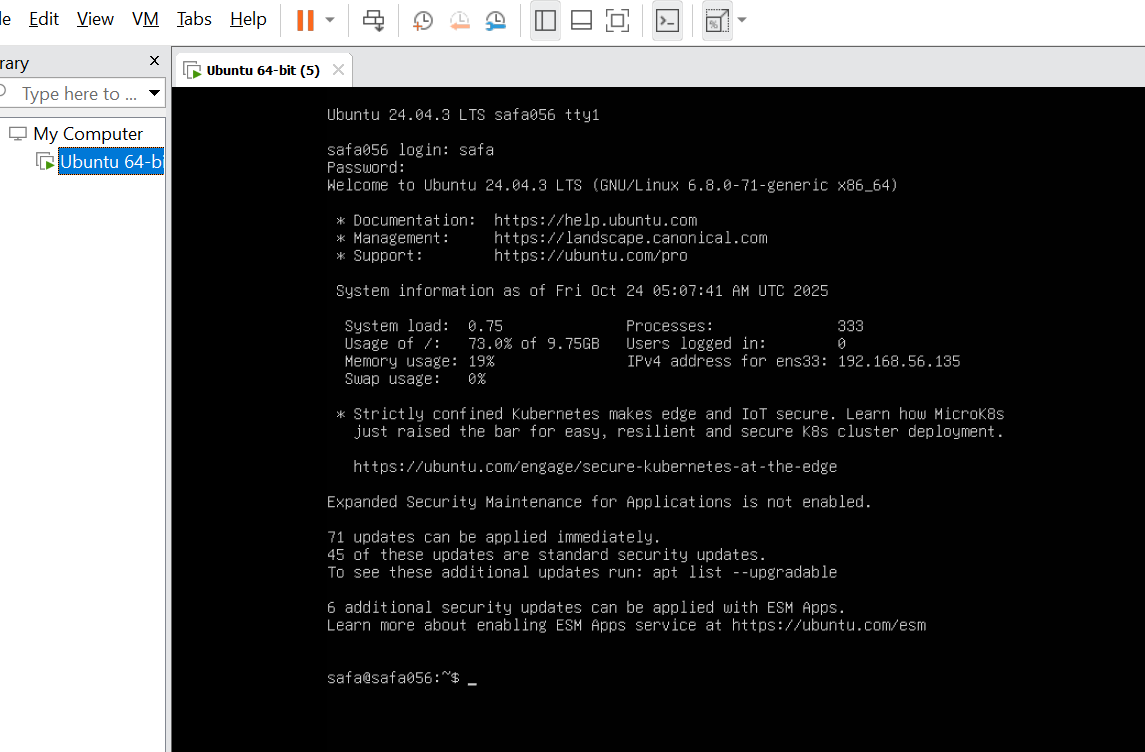
* task6\_after\_reboot\_gui.png



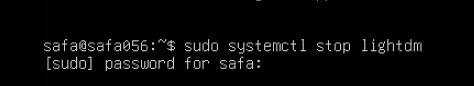
* task6\_gui\_disable\_boot.png



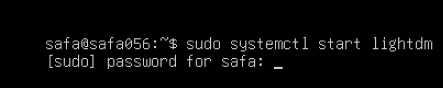
* task6\_after\_reboot\_cli.png



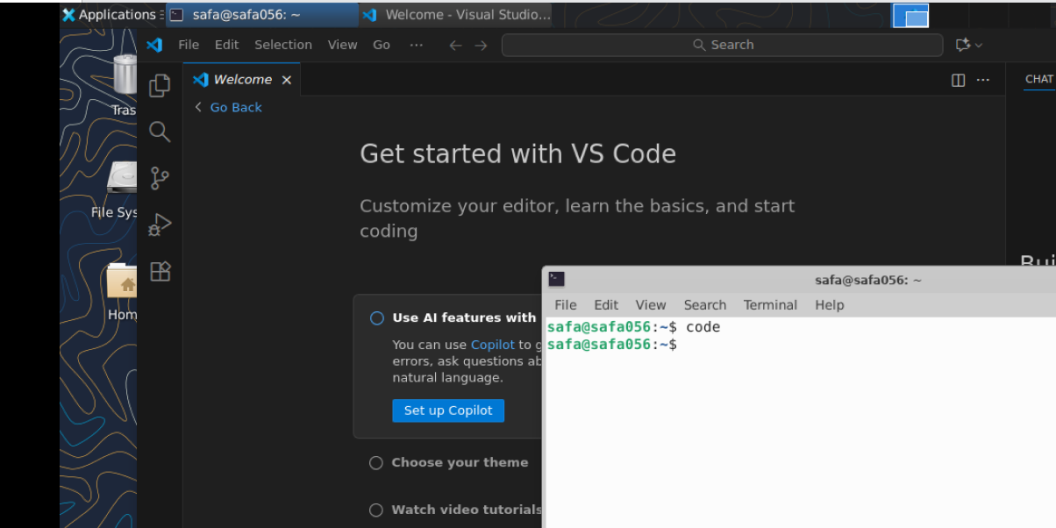
* task6\_gui\_stop.png



* task6\_gui\_start\_command.png

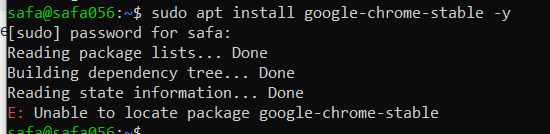


* task6\_vscode\_launch.png

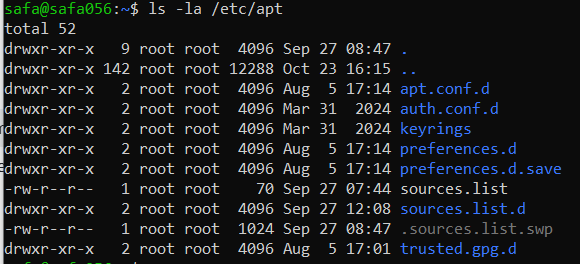


## Task 7 - Install Google Chrome by adding its apt source & key (Chrome)

* task7\_install\_chrome\_error.png



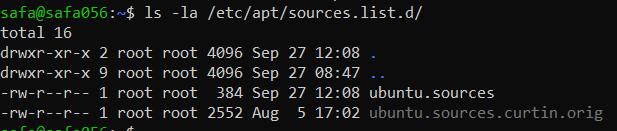
* task7\_ls\_etc\_apt.png



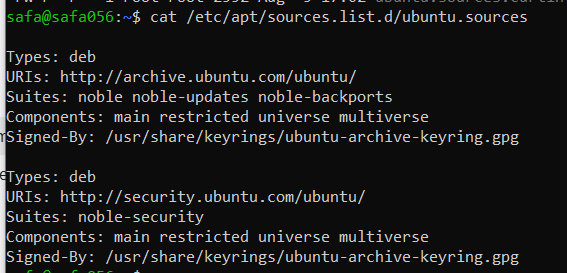
* task7\_cat\_sources\_list.png



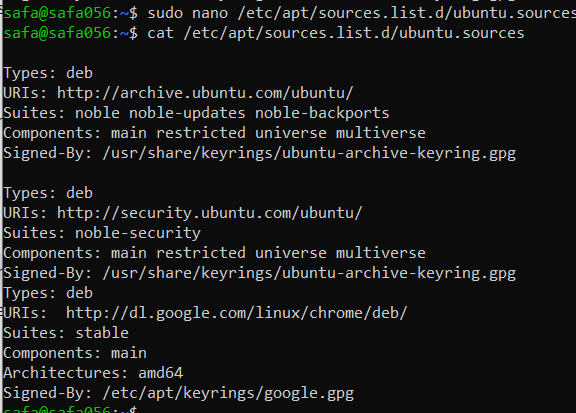
* task7\_ls\_sources\_list\_d.png



* task7\_cat\_ubuntu\_sources.png



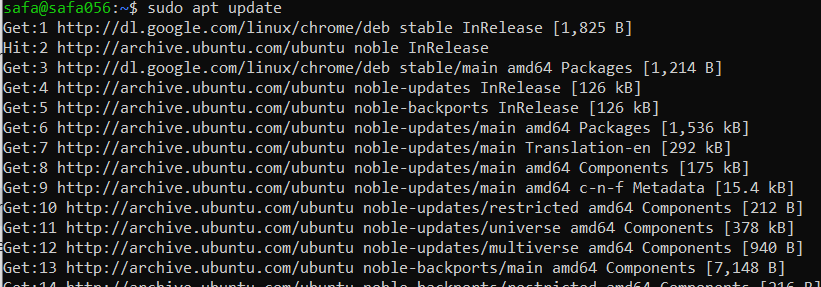
* task7\_edit\_ubuntu\_sources.png



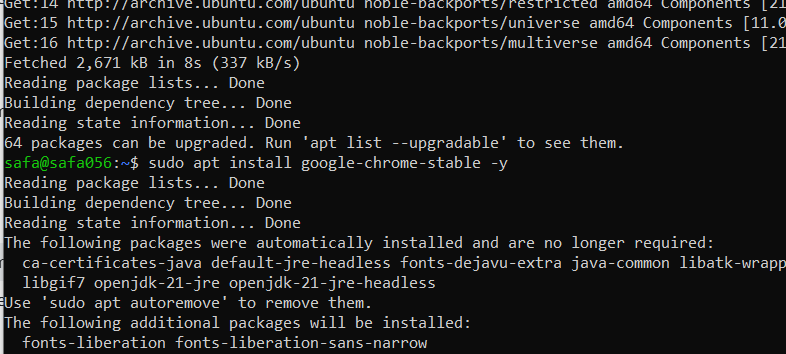
* task7\_add\_key.png



* task7\_apt\_update.png



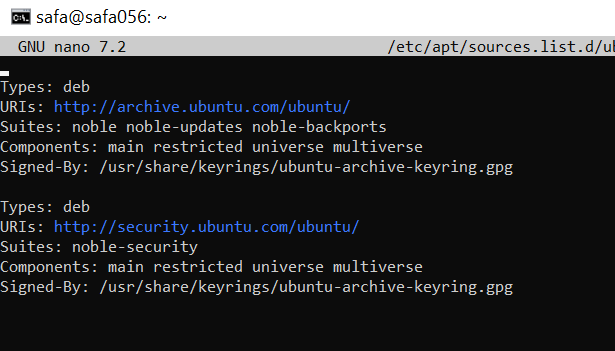
* task7\_install\_chrome.png



* task7\_alternate\_remove.png



* task7\_alternate\_edit.png



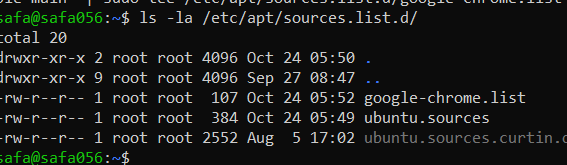
* task7\_remove\_key.png



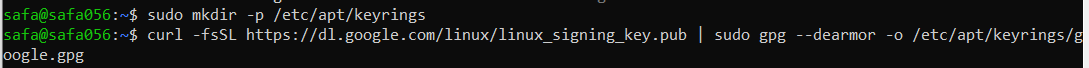
* task7\_create\_google\_chrome\_list.png



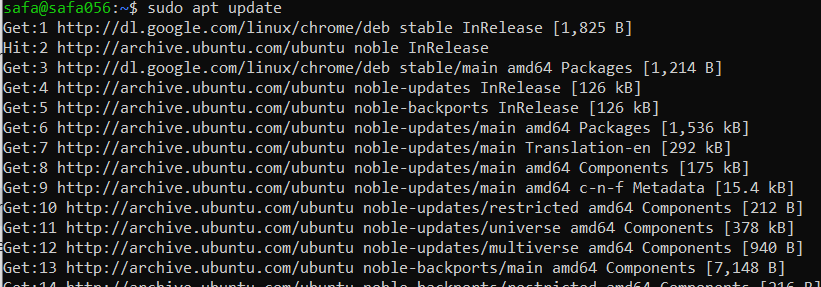
* task7\_list\_sources\_after\_create.png



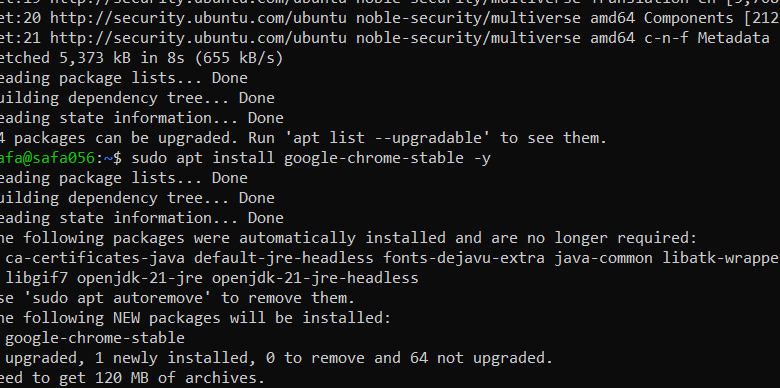
* task7\_add\_key\_alt.png



* task7\_apt\_update\_alt.png

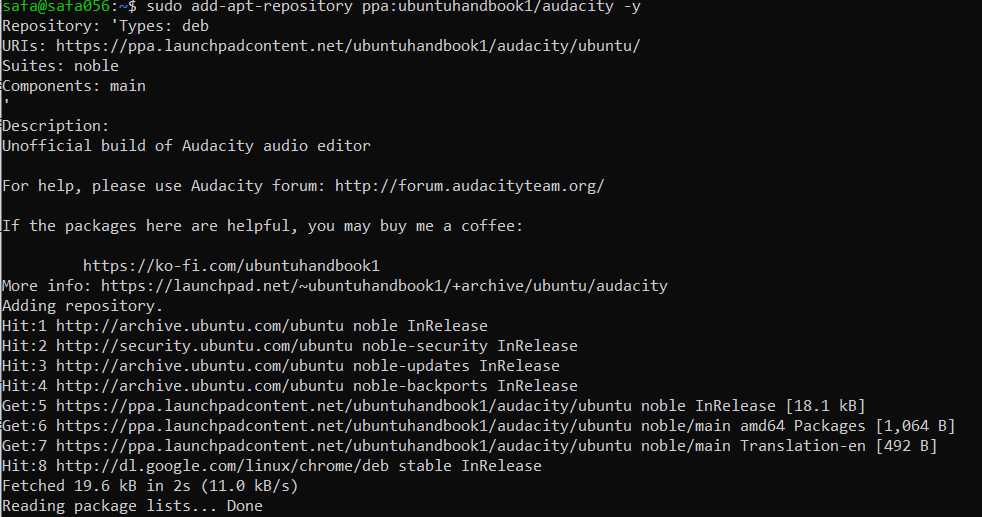


* task7\_install\_chrome\_alt.png

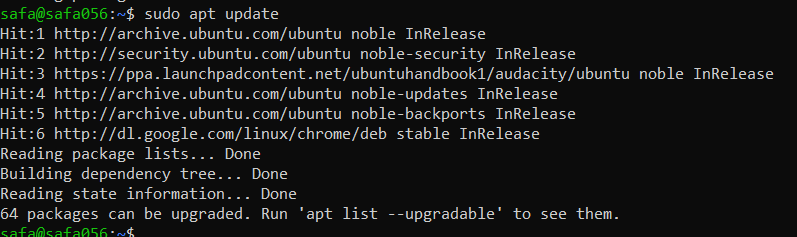


## Task 8 - Install applications via PPA (Audacity & OBS) and launch

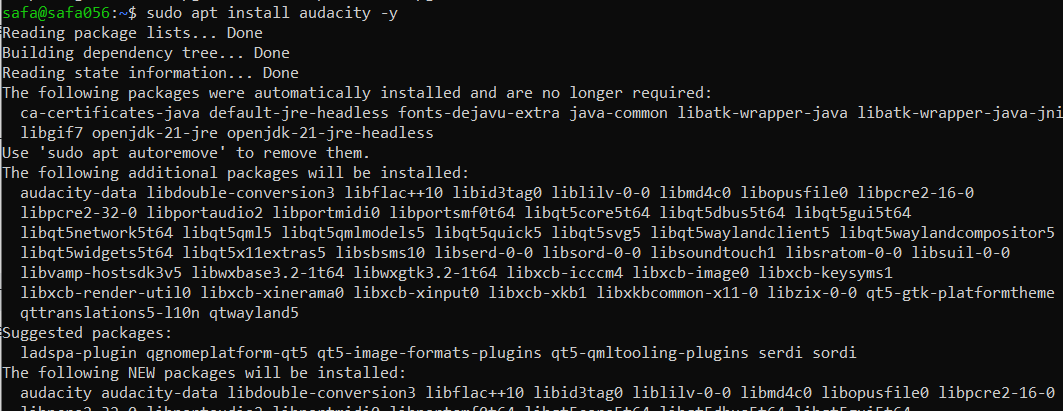
* task8\_add\_ppa\_audacity.png



* task8\_apt\_update\_audacity.png



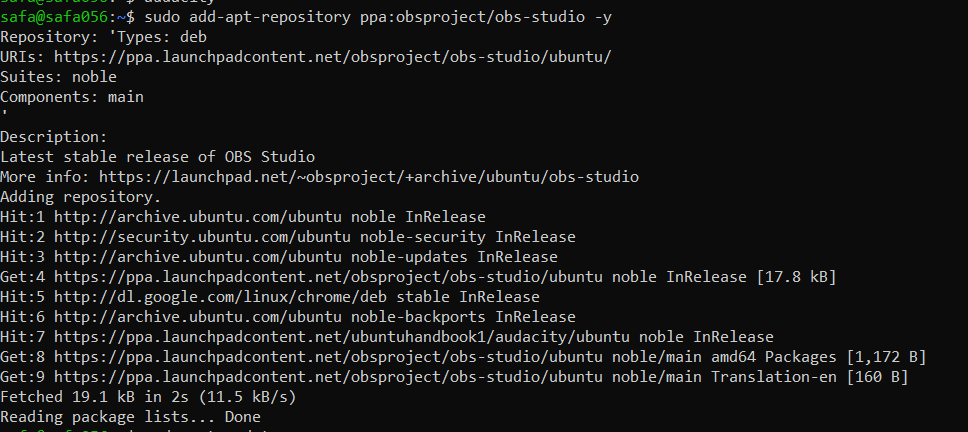
* task8\_install\_audacity.png



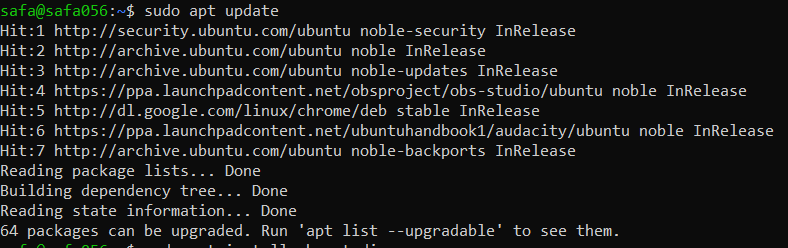
* task8\_audacity\_launch.png or task8\_audacity\_version.png



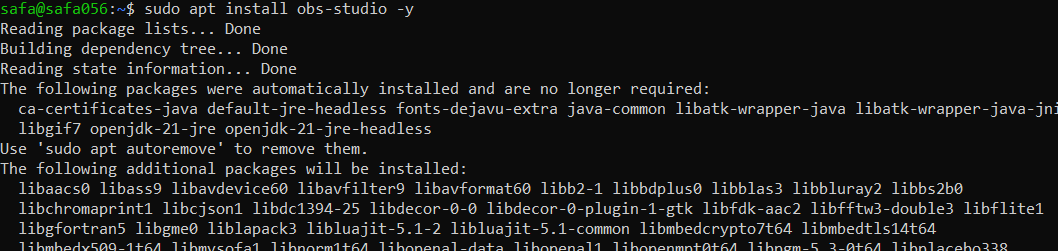
* task8\_add\_ppa\_obs.png



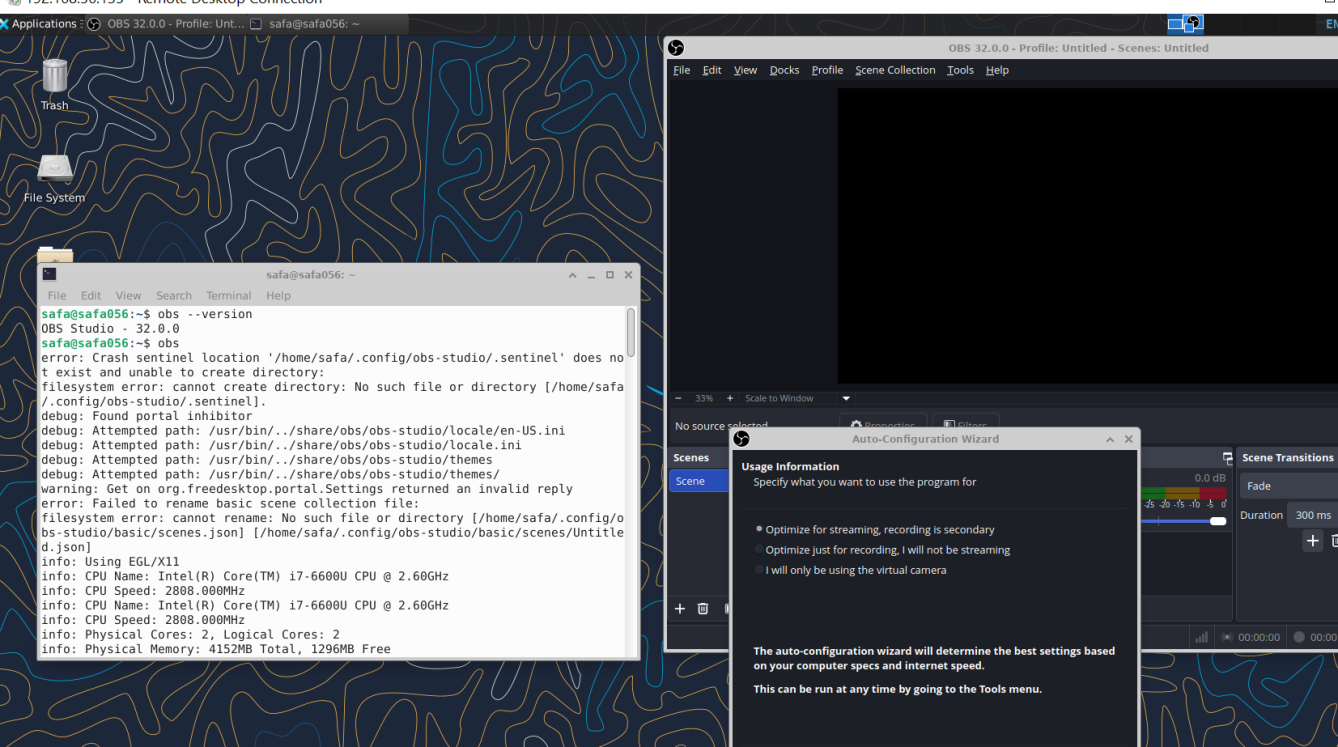
* task8\_apt\_update\_obs.png



* task8\_install\_obs.png

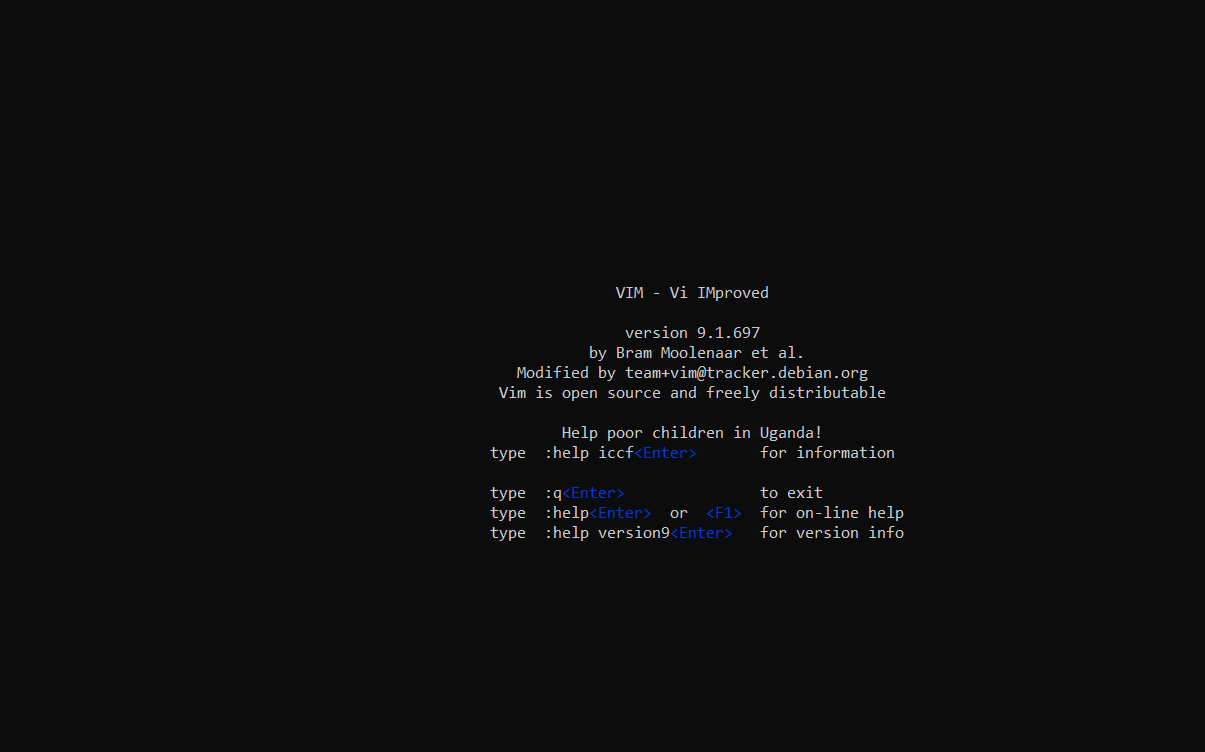


* task8\_obs\_launch.png or task8\_obs\_version.png

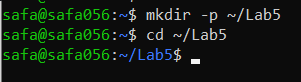


## Task 9 - Create a Kubernetes sample YAML using vim

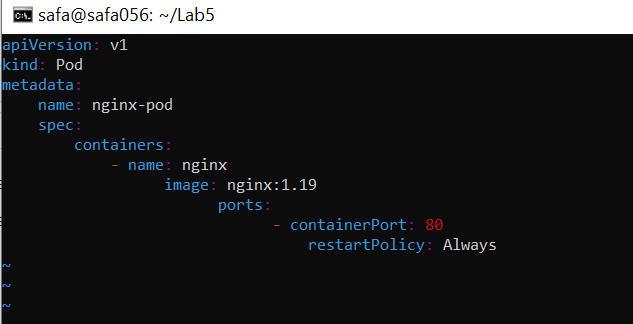
* task9\_vim\_check.png



* task9\_mkdir\_cd.png



* task9\_vim\_edit.png

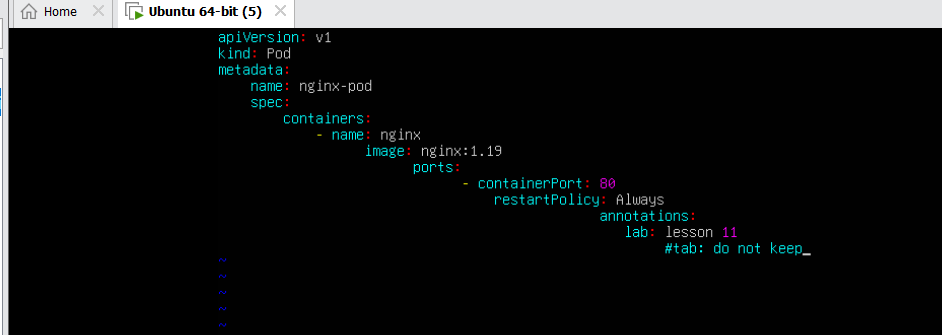


## Task 10 - Edit the Kubernetes YAML - add annotation, verify, then discard temporary change

* task10\_verify\_annotation.png



* task10\_verify\_entering\_temp\_data.png

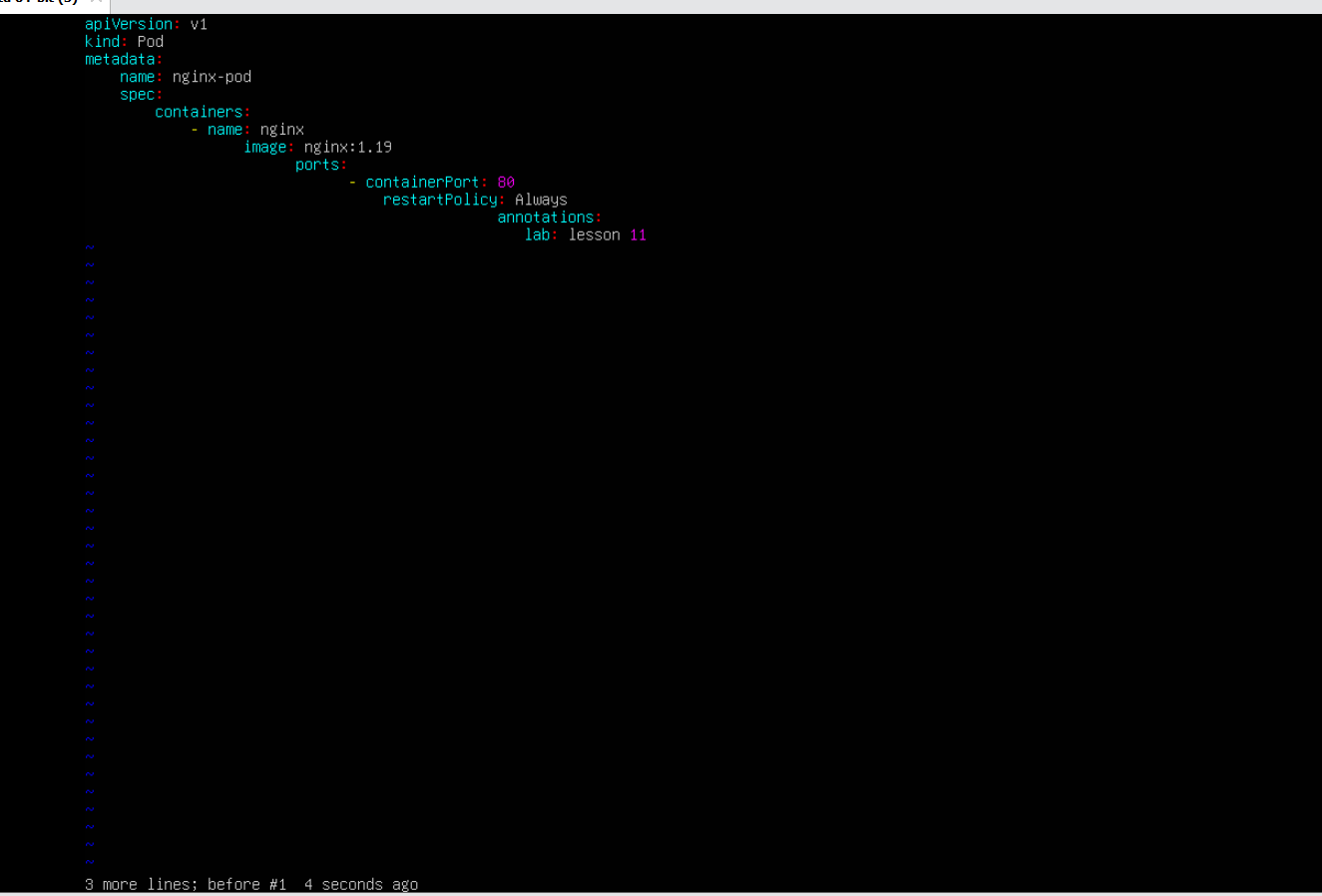


* task10\_verify\_no\_temp\_comment.png



**Task 11 - Vim editing practice - delete, undo, numeric deletes, and navigation**

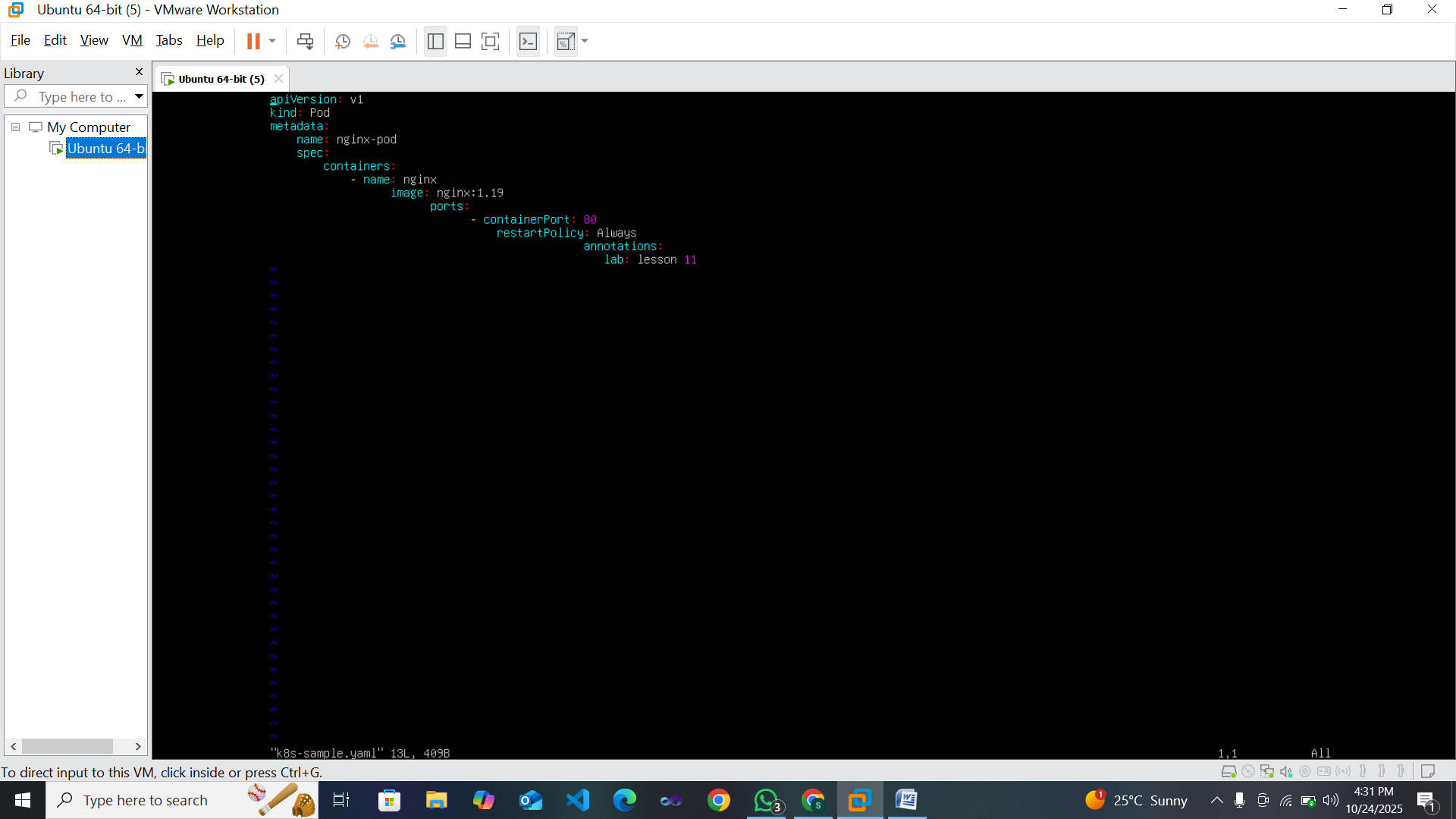
* task11\_dd\_delete\_and\_undo.png



* task11\_delete3\_and\_undo.png



* task11\_line1.png

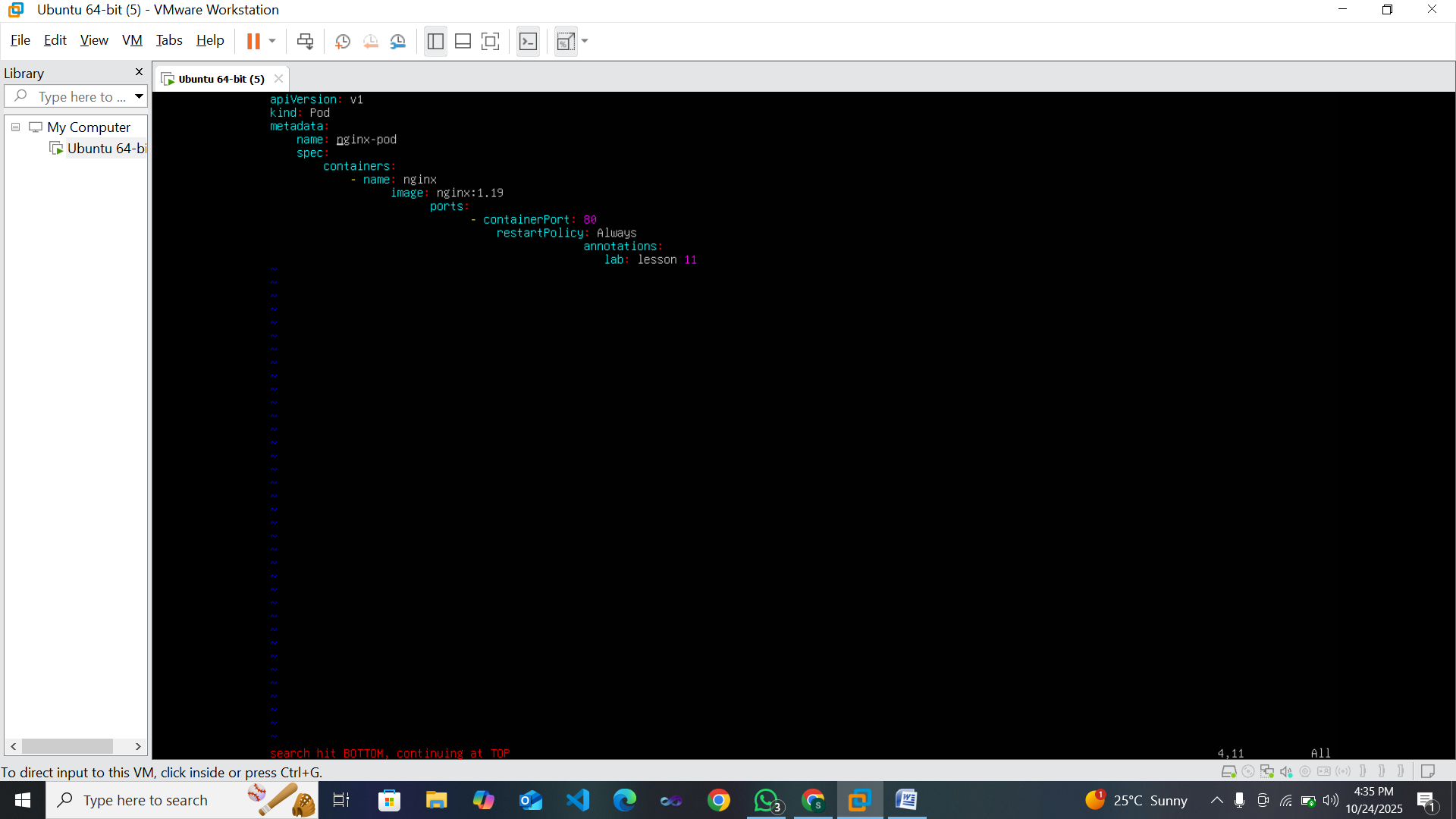


* task11\_navigation.png

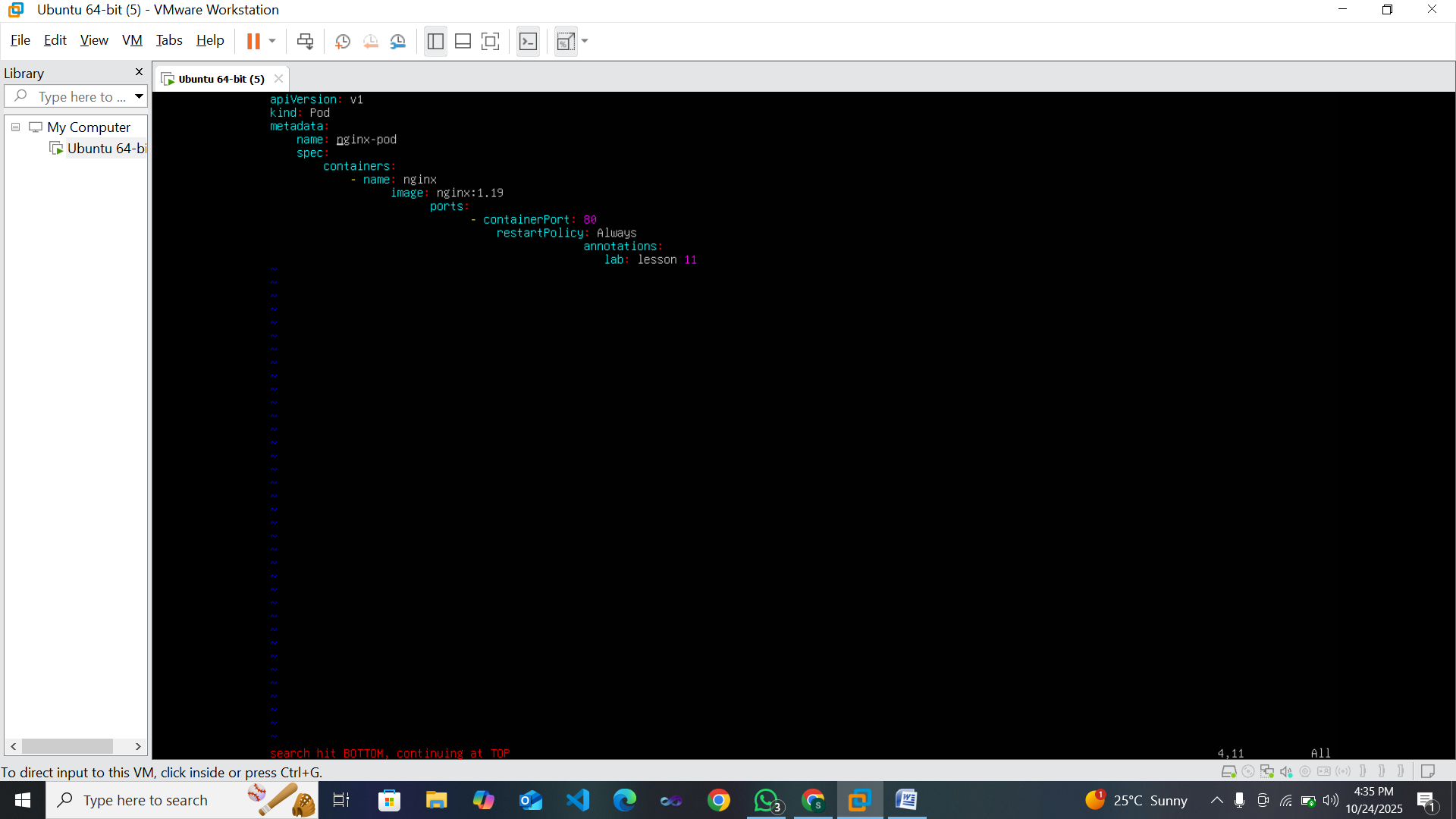


**Task 12 - Vim search, add matches, substitute, undo**

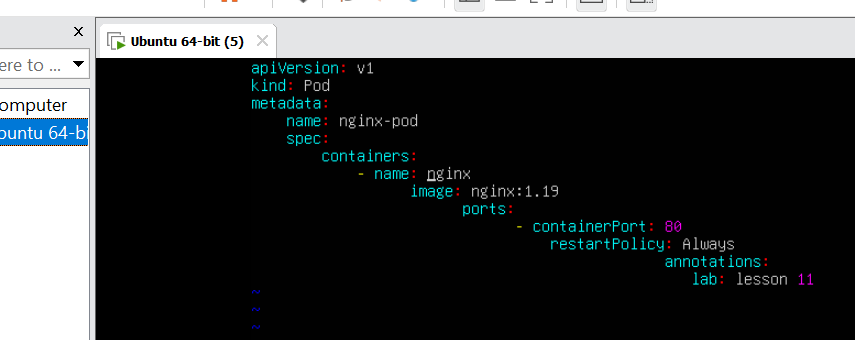
* task12\_search\_nginx.png



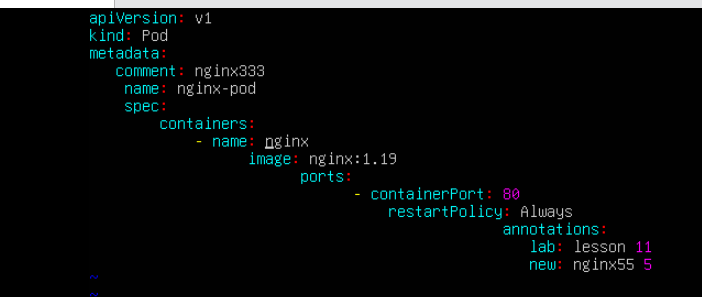
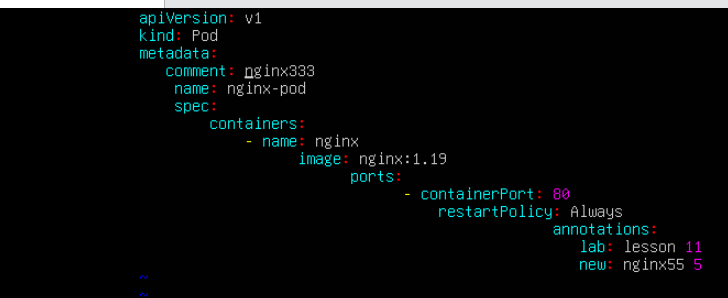
* task12\_n\_and\_N\_navigation.png

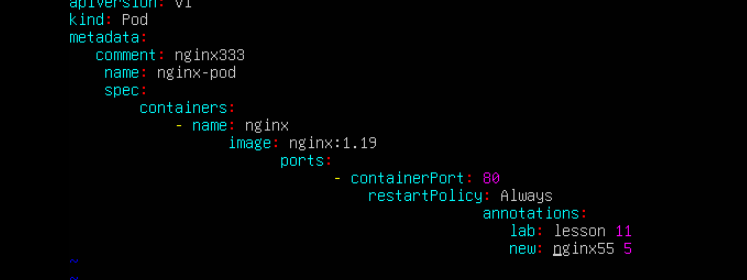


* task12\_added\_occurrences.png



* task12\_cycle\_matches.png





* task12\_substitute\_result.png



* task12\_undo\_and\_quit.png

