Software and Cybersecurity Lab

CS445 Lab10

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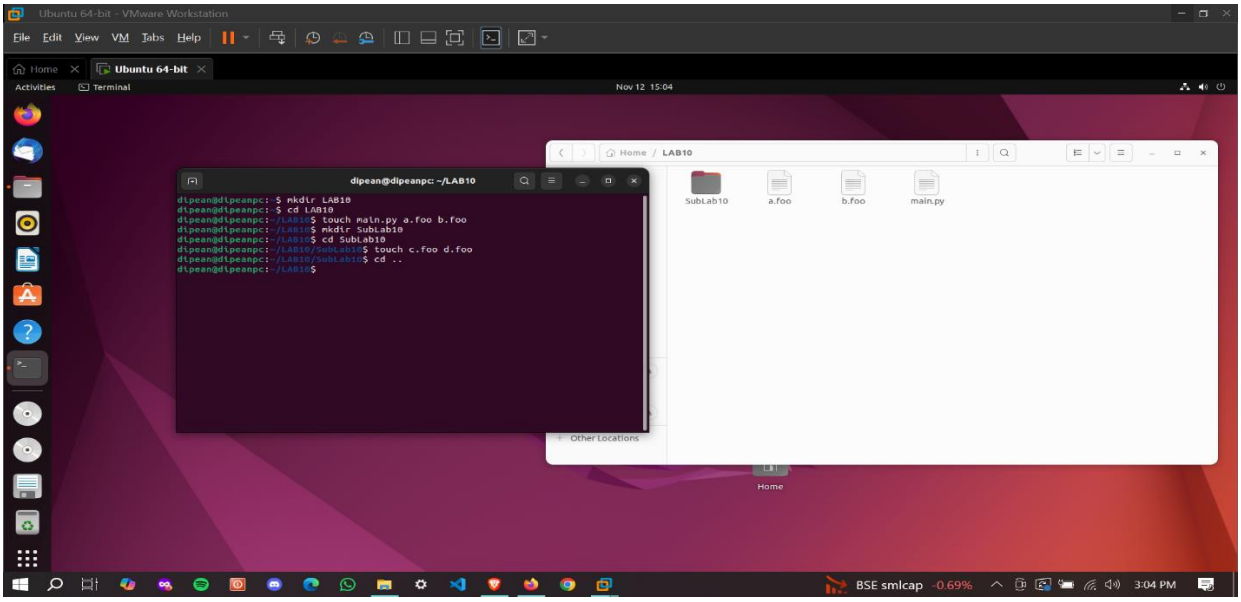
Task: Creation and implementation of a Self-Replicating virus.

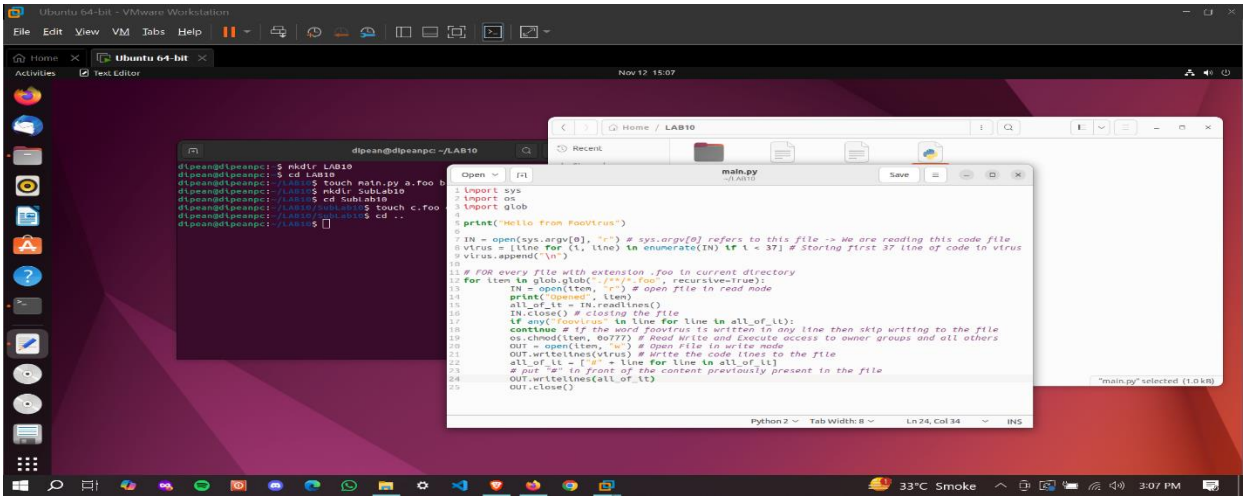
In this lab, a self-replicating virus (python file) is created and executed. How the virus self-replicates and spreads out and infects the targeted files is observed in output.

OS: Linux (Ubuntu)

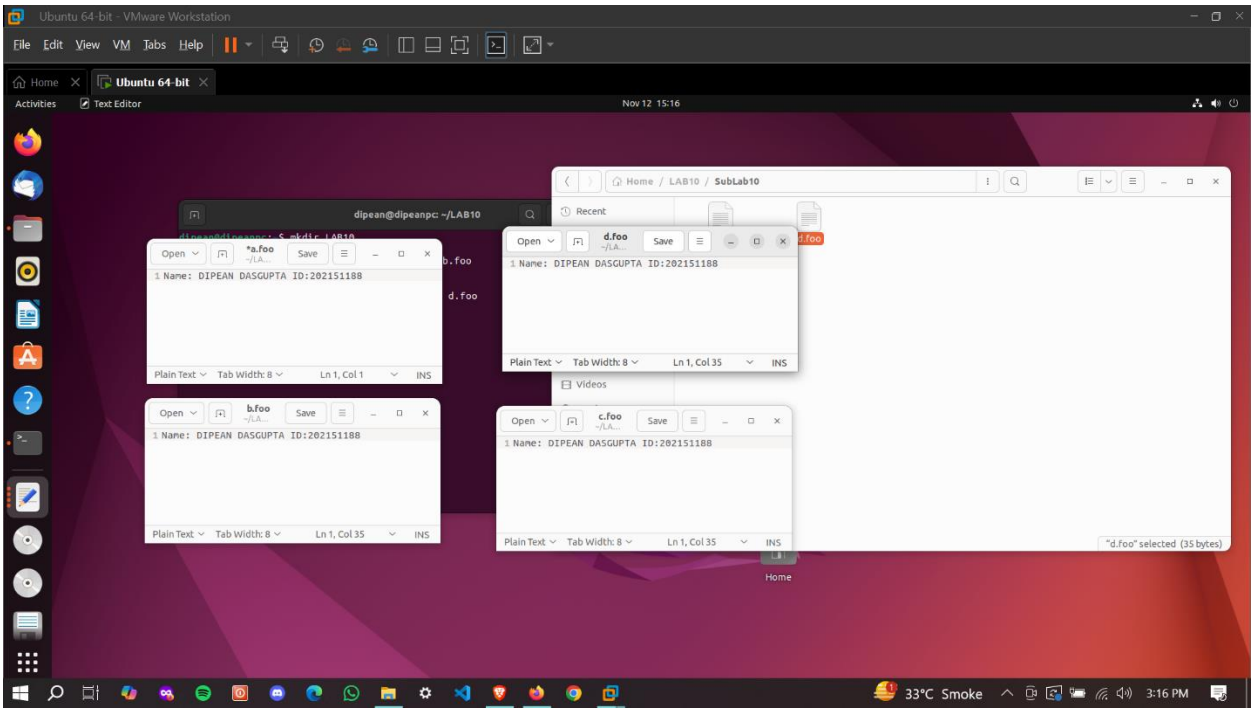
Step1: Creating directory and required files



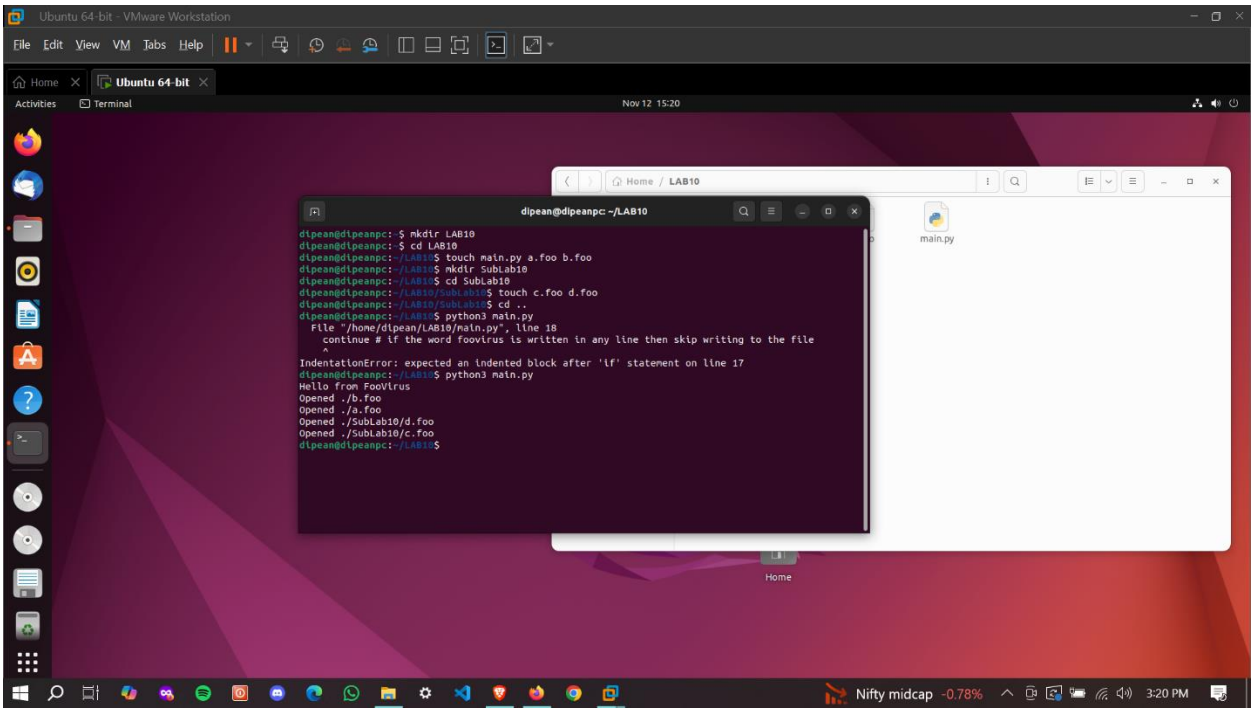
Step 2: Coding the virus file



Step3: Putting some info on the target files

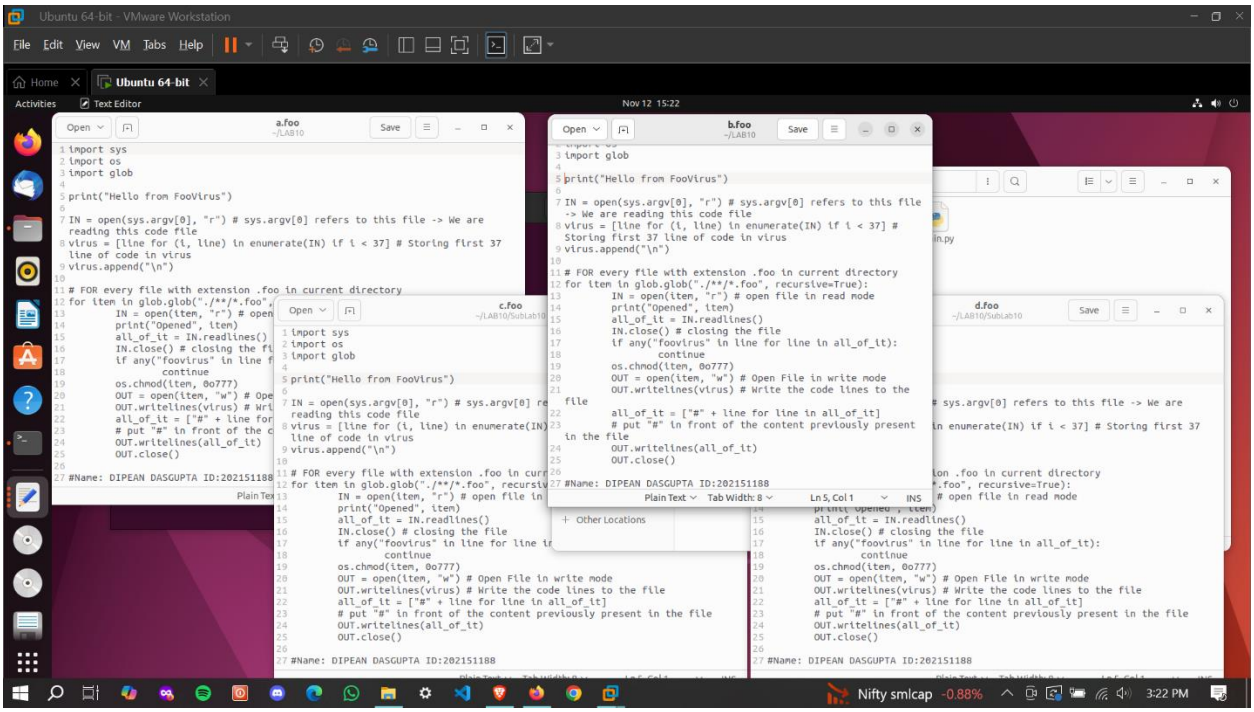


Step4: Running the Virus File in terminal



The virus is named FooVirus.

OUTPUT:



The FooVirus has spread and replicated itself. The same content is seen in all the 4 files. Even the files in subfolder has been affected.

Potential Impacts:

Similar to viruses and worms, self-replicating code can severely deplete system resources, impede network speed, and result in corrupted or lost data. By opening backdoors, propagating quickly over networks, and making cleaning difficult and expensive, it increases security concerns. Such virus harms an organization's reputation, reduces productivity, and could result in legal problems if sensitive data is compromised. Limiting these effects requires effective security procedures.

----------END of ASSIGNMENT----------