PPSU

P P SAVANI UNIVERSITY

🎓 **Assignment: Safe Virus Simulation (Hello World Virus)**

Objective:
To understand how simple scripts can mimic virus-like behavior safely, without harming the operating system. Students will implement a harmless "Hello World Virus" simulation on both **Kali Linux** and **Windows**.

Part A: Linux (Kali) Simulation

Task: Create a bash script that looks like a "virus," but only repeatedly displays "Hello World - You are infected (Simulation)" until stopped.

Steps:

1. Open terminal in Kali.
2. Create a script file:
3. nano hello_virus.sh
4. Write the following safe script:
5. #!/bin/bash
6. # Safe Virus Simulation - Linux
7. while true
8. do
9.   echo "Hello World - You are infected (Simulation)"
10.   sleep 1
11. done
12. Save and exit (CTRL+O, CTRL+X).
13. Give execution permission:
14. chmod +x hello_virus.sh
15. Run the simulation:
16. ./hello_virus.sh
17. Stop it anytime with:
18. CTRL + C

Expected Output:
Screen keeps printing "Hello World - You are infected (Simulation)" every second until user stops it.

Part B: Windows (BAT File) Simulation

Task: Create a batch file in Notepad that repeatedly opens a message box or echoes "Hello World Virus Simulation" to the console.

Steps:

1. Open Notepad.
2. Write the following batch code:
3. @echo off
4. :start
5. echo Hello World - You are infected (Simulation)
6. goto start

   (This creates an endless loop of "Hello World" messages in the terminal.)

7. Save the file as:
8. hello_virus.bat

   (Make sure to select **"Save as type: All Files"** and not .txt.)

9. Double-click hello_virus.bat to run.
10. Stop the simulation by pressing CTRL + C in the terminal window or closing it.

Optional Fun (Message Box Demo – still safe):

@echo off
msg * Hello World - You are infected (Simulation)

This shows a harmless popup message on Windows.

Submission Requirements

- Screenshot of Linux terminal running the script.
- Screenshot of Windows CMD running the .bat file.
- Short note (200–300 words) explaining how real viruses behave differently (self-replication, spreading, hiding) compared to this **safe simulation**.

Safety Note ⚠️

- This exercise is purely educational.
- The scripts do **not** harm files or the operating system.
- They only demonstrate looping and repetitive message display.