

## **Day 20**

### **Topic: Shell Scripting**

**Objective:** To use Bash scripting for automating Linux administration and reconnaissance tasks.

#### **Theoretical Concepts:**

Bash scripting allows us to chain Linux commands together. We learned about Shebang (`#!/`), variables, if-else statements, and loops in Bash.

#### **Practical Work:**

We wrote a bash script named `pingsweep.sh`. The script took a network range (e.g., 192.168.1) as input and looped through IPs 1-254, pinging each one. It outputted a clean list of only the active hosts. This automated the manual ping process we did on Day 1.

**Tools Used:** Bash Shell, Nano Editor.

**Outcome:** Ability to automate repetitive terminal tasks using shell scripts.