**1. Algorithm (Step-by-Step in Simple English)**

Define a list of serial numbers you want to search.

List all the 8 .log files you want to scan.

Set the folder where logs are stored.

For each serial number:

Create a new folder for storing its output files.

For each log file:

If the file is found:

Search for login events in the file.

Save them into the output folder for that serial number.

Search for logout events in the same file.

Save them as well in the same folder.

Print the number of events found for each file and serial.