START

DEFINE list of serial\_numbers

DEFINE list of log\_files

DEFINE base log directory

DEFINE event\_types as [login, logout]

FOR each serial\_number IN serial\_numbers:

CREATE a folder named after the serial inside the output directory

FOR each log\_file IN log\_files:

COMBINE log directory and log\_file to make file\_path

IF file\_path exists:

FOR each event\_type IN [login, logout]:

CALL extract\_events(file\_path, serial\_number, file\_label, event\_type, serial\_output\_dir)

ELSE:

PRINT "File not found"

FUNCTION extract\_events(file\_path, serial, file\_label, event\_type, output\_dir):

DEFINE a regular expression to match timestamp, serial, and event\_type

INITIALIZE matched\_lines as empty list

SET count = 0

OPEN file\_path and read each line:

IF line matches the pattern:

EXTRACT timestamp

FORMAT as "timestamp - serial - EVENT"

ADD to matched\_lines

INCREMENT count

WRITE matched\_lines and count to output\_file under output\_dir

PRINT how many events found

END