

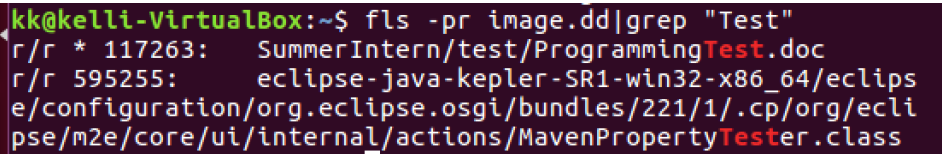
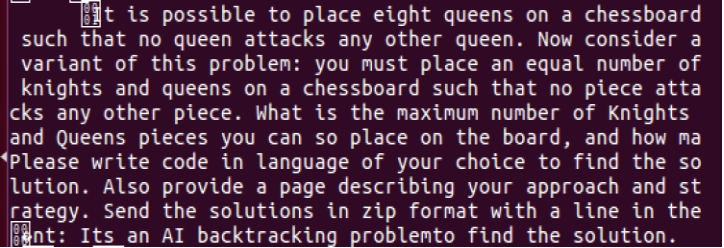
## Laboratory Notes

Laboratory Number: \_\_\_\_3\_\_\_\_

Examiner Name: Kelli Kinnikin

Date & Time

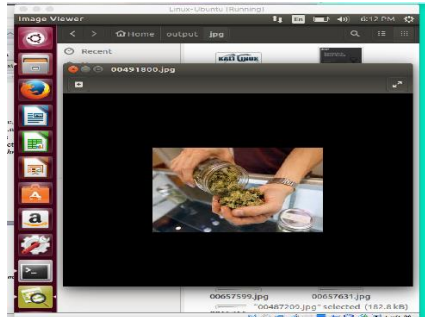
Activity

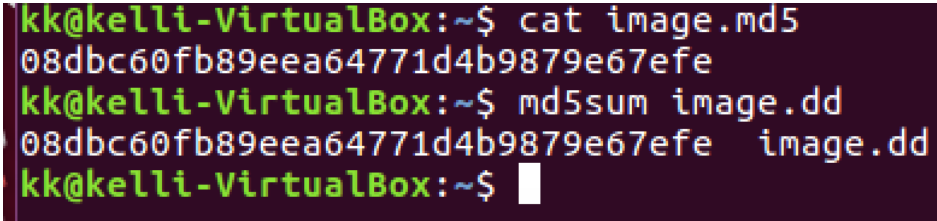
11/8/17 7:00	First, I downloaded the <a href="http://cis425@mathcs.wcfontbonne.edu/~image.dd">cis425@mathcs.wcfontbonne.edu:~/image.dd</a> file from the writeup using "scp <a href="http://cis425@mathcs.wcfontbonne.edu:~/image.dd">cis425@mathcs.wcfontbonne.edu:~/image.dd</a> ./"
11/8/17 7:20	Next, I downloaded the <a href="http://cis425@mathcs.wcfontbonne.edu:~/image.md5">cis425@mathcs.wcfontbonne.edu:~/image.md5</a> file using the command: " scp <a href="http://cis425@mathcs.wcfontbonne.edu:~/image.md5">cis425@mathcs.wcfontbonne.edu:~/image.md5</a> ./"
11/8/17 7:22	To recover the ProgrammingTest.doc file, I first used the command "fls -pr image.dd grep "Test"" I used the grep search command to search for files that used the keyword "Test" to be able to find the ProgrammingTest.doc  
11/8/17 7:30	Now, you see the inode number of the ProgrammingTest.doc <ul style="list-style-type: none"> <li>To get the actual content of the ProgrammingTest.doc file, I used the command: "icat image.dd 117263"</li> <li>Content: It is possible to place eight queens on a chessboard such that no queen attacks any other queen. Now consider a variant of this problem: you must place an equal number of knights and queens on a chessboard such that no piece attacks any other piece. What is the maximum number of Knights and Queens pieces you can place on the board, and how many. Please write code in language of your choice to find the solution. Also provide a page describing your approach and strategy. Send the solutions in zip format with a line in the text: Its an AI backtracking problem to find the solution.</li> </ul> 

11/8/17  
7:45

Next, I needed to search a raw image file named image.dd along with image.md5. My task was to find three pictures of weed from the image.

- I used a tool kit called foremost
- Command: `sudo apt-get install foremost`
- After downloading the tool kit, I used the command "`foremost -t jpg -i image.dd`"
- Using the above command, creates an output folder in your home directory.
- Click the output folder and navigate to the jpg subfolder.



<p>11/8/17 8:00</p>	<p>Lastly, I needed to find the address and phone number information about Mike Jones.</p> <ul style="list-style-type: none"> <li>• Command: "fls -rd image.dd&gt;deleted.txt"</li> <li>• This puts the terminal output of all deleted files and inodes in a txt file.</li> <li>• You need to go to your home directory and click the "deleted.txt"</li> <li>• There you will see ContactInfo.txt (4<sup>th</sup> line) with inode number 7022879.</li> <li>• To view the content of that file I went back to the terminal and used the command "icat image.dd 7022879"</li> </ul> <p>Answer: <b>Address: 1234 Narnia Ave</b>  <b>Saint Louis, MO 63102</b>  <b>Phone: (314)- 654-9876</b></p>
<p>11/8/17 8:15</p>	<p>It is important to check the integrity at the end of your examination to make sure there were no alterations to the original image. To get the hash values of image.dd and image.md5 I used the following commands:</p> <p>Command:"cat image.md5"  Command: "md5sum image.dd"</p> <p>The hash values match!</p>  <pre> kk@kelli-VirtualBox:~\$ cat image.md5 08dbc60fb89eea64771d4b9879e67efe kk@kelli-VirtualBox:~\$ md5sum image.dd 08dbc60fb89eea64771d4b9879e67efe image.dd kk@kelli-VirtualBox:~\$ </pre>