**Module 3 Challenge: A High-Stakes Investigation**

**Step 1: Investigation preparation.**

1. Create a single directory titled - Lucky\_Duck\_Investigation

mkdir Lucky\_Duck\_Investigation

2. Inside this, create a directory for investigation - Roulette\_Loss\_Investigation

cd Lucky\_Duck\_Investigation

mkdir Roulette\_Loss\_Investigation

3. Inside this, create three directories - Player\_Analysis, Dealer\_Analysis, Player\_Dealer\_Correlation

mkdir Player\_Analysis Dealer\_Analysis Player\_Dealer\_Correlation

4. Create empty files called Notes\_Player\_Analysis.txt, Notes\_Dealer\_Analysis.txt, and Notes\_Player\_Dealer\_Correlation.txt in each subdirectory.

cd Player\_Analysis

touch Notes\_Player\_Analysis.txt

cd ../

cd Dealer\_Analysis

touch Notes\_Dealer\_Analysis.txt

cd ../

cd Player\_Dealer\_Correlation

touch Player\_Dealer\_Correlation.txt

Completed as instructed:

**Step 2: Gathering Evidence**

1. From Home directory, the following command is run:

wget "<https://drive.google.com/uc?id=1ZLY_fuFu3wz7tOlxf-GUrnvp3htuGKSa>" -O 3-HW-setup-evidence && chmod +x ./3-HW-setup-evidence && ./3-HW-setup-evidence

2. This command adds two more directories in current directory.

- Dealer\_Schedules\_0310, &

- Roulette\_Player\_WinLoss\_0310

Completed as instructed:

3. Since the losses occurred on March 10, 12 and 15, move the schedules for those days into the directory Dealer\_Analysis

From Home directory:

mv ./Dealer\_Schedules\_0310/0310\_Dealer\_schedule.txt ./Lucky\_Duck\_Investigations/Roulette\_Loss\_Investigation/Dealer\_Analysis/

mv ./Dealer\_Schedules\_0310/0312\_Dealer\_schedule.txt ./Lucky\_Duck\_Investigations/Roulette\_Loss\_Investigation/Dealer\_Analysis/

mv ./Dealer\_Schedules\_0310/0315\_Dealer\_schedule.txt ./Lucky\_Duck\_Investigations/Roulette\_Loss\_Investigation/Dealer\_Analysis/

4. Move the WinLoss Player Data files for those days into the directory Player\_Analysis.

From Home directory:

mv ./Roulette\_Player\_WinLoss\_0310/0310\_win\_loss\_player\_data.txt ./Lucky\_Duck\_Investigations/Roulette\_Loss\_Investigation/Player\_Analysis/

mv ./Roulette\_Player\_WinLoss\_0310/0312\_win\_loss\_player\_data.txt ./Lucky\_Duck\_Investigations/Roulette\_Loss\_Investigation/Player\_Analysis/

mv ./Roulette\_Player\_WinLoss\_0310/0315\_win\_loss\_player\_data.txt ./Lucky\_Duck\_Investigations/Roulette\_Loss\_Investigation/Player\_Analysis/

Step 3: Correlating the Evidence : Correlate the large losses from the Roulette tables with the dealer schedules.

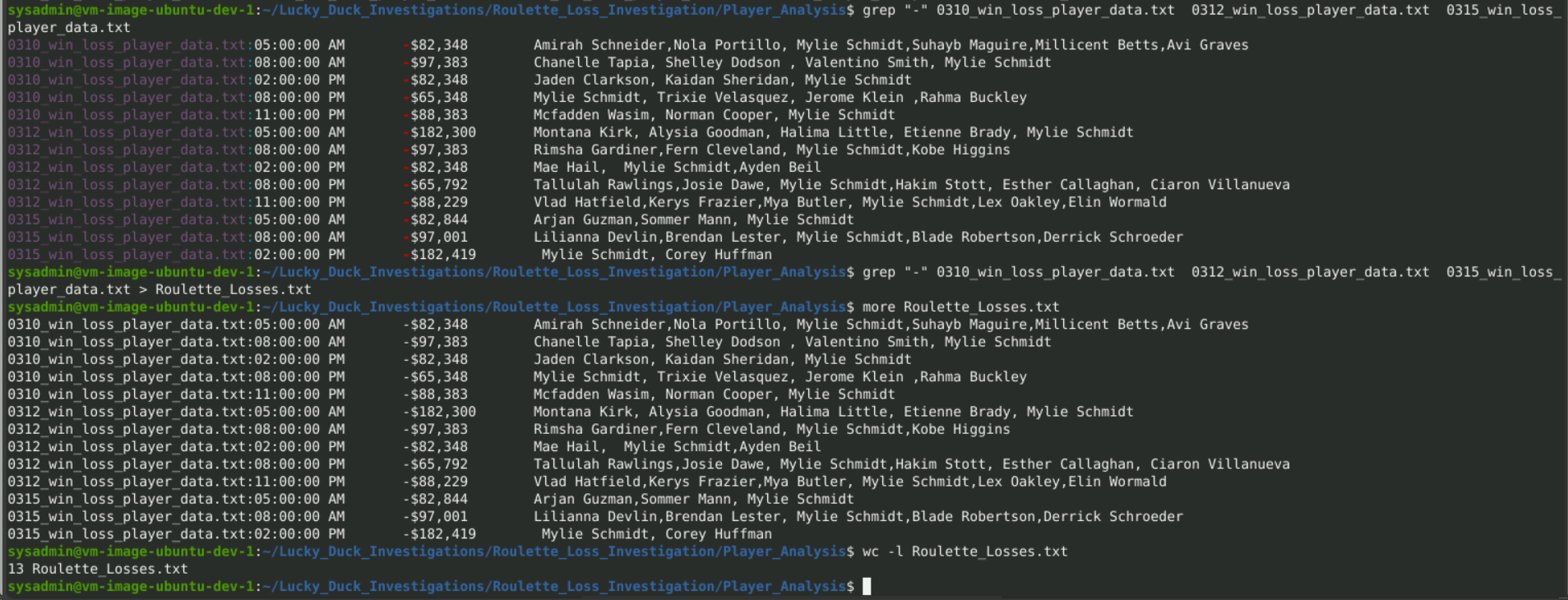
1. Complete the player analysis:

a. Use grep to isolate all of the losses that occurred on March 10,12 and 15.

grep "-" \*

b. Place those results in a file called Roulette\_Losses.txt

grep "-" \* > Roulette\_Losses.txt



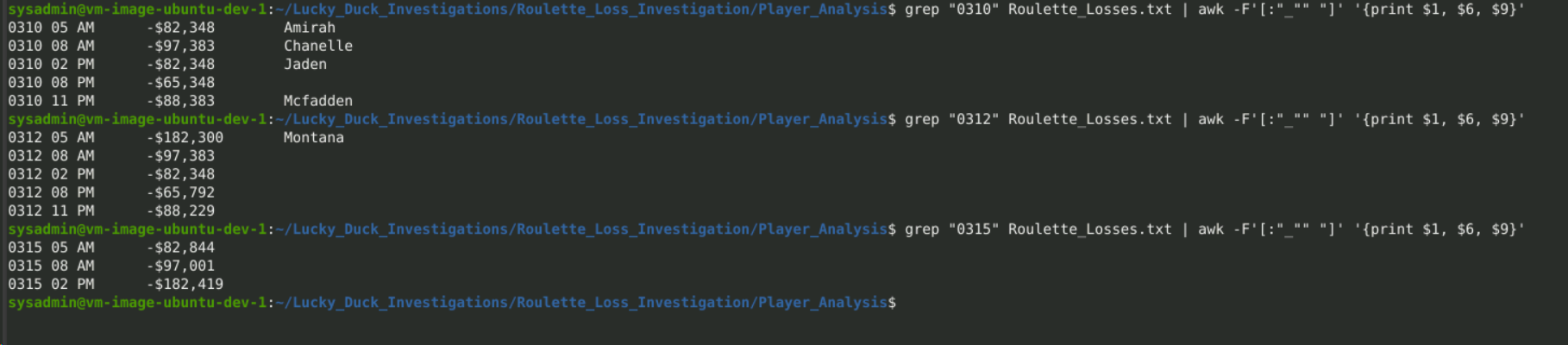
1. Fill in the analysis in Notes\_Player\_Analysis.txt with the followings:
   1. The time losses occurred on each day.

grep "0310" Roulette\_Losses.txt | awk -F'[:"\_"" "]' '{print $1, $6, $9}

grep "0312" Roulette\_Losses.txt | awk -F'[:"\_"" "]' '{print $1, $6, $9}

grep "0315" Roulette\_Losses.txt | awk -F'[:"\_"" "]' '{print $1, $6, $9}

(this also gets the first name of the player on the list, which I don’t know how to omit)



* If there is a certain player who was playing during each losses -- Mylie was there playing on given days and times.

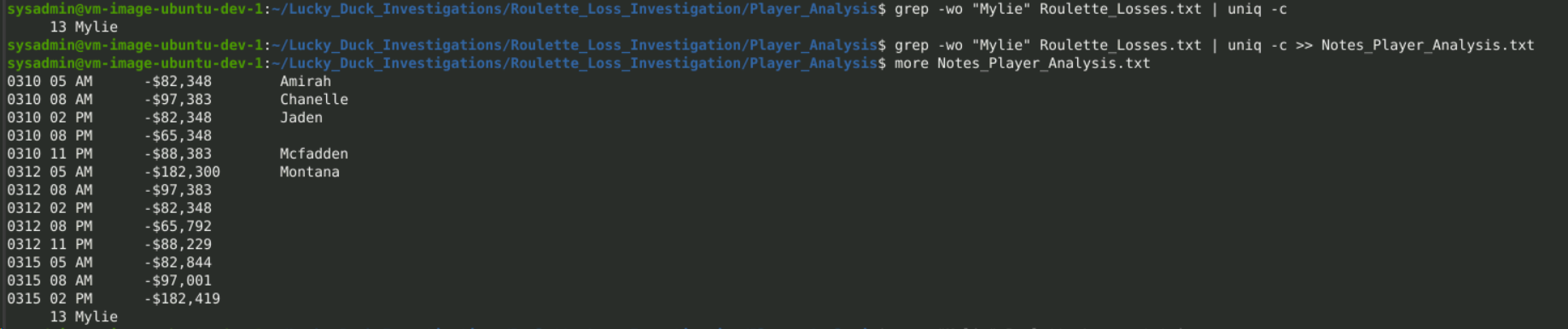
grep "Mylie" Roulette\_Losses.txt | awk -F'[:"\_"" "]' '{print $1, $6, $9}'

Grep "Mylie" Roulette\_Losses.txt | wc -l



* Total times this player was playing :

grep -wo "Mylie" Roulette\_Losses.txt | uniq -c



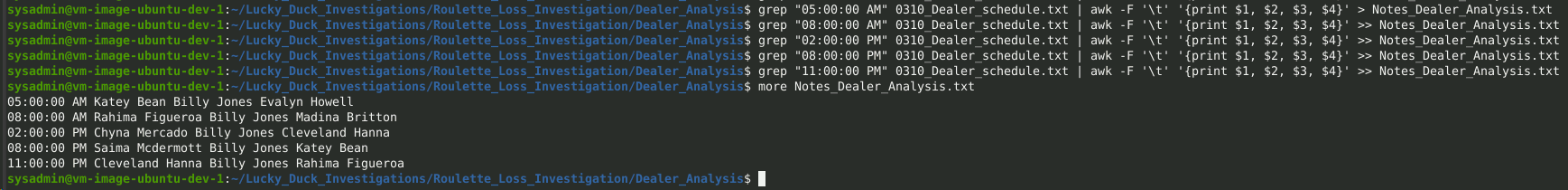
To count all possible players and see how many times they were playing:

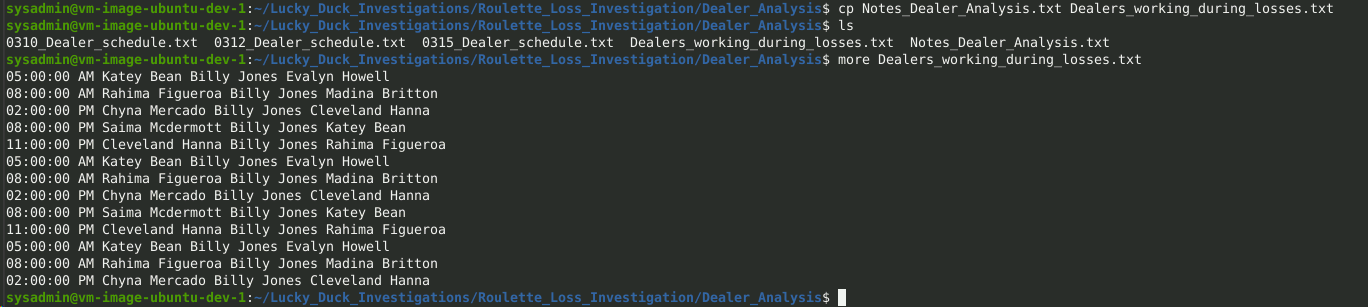
Didn't used this:

grep -o -w '[[:alpha:]]\+' Roulette\_Losses.txt | awk '{ count[$0]++ } END { for (name in count) print name, count[name] }' | sort -k2nr

Dealer Analysis

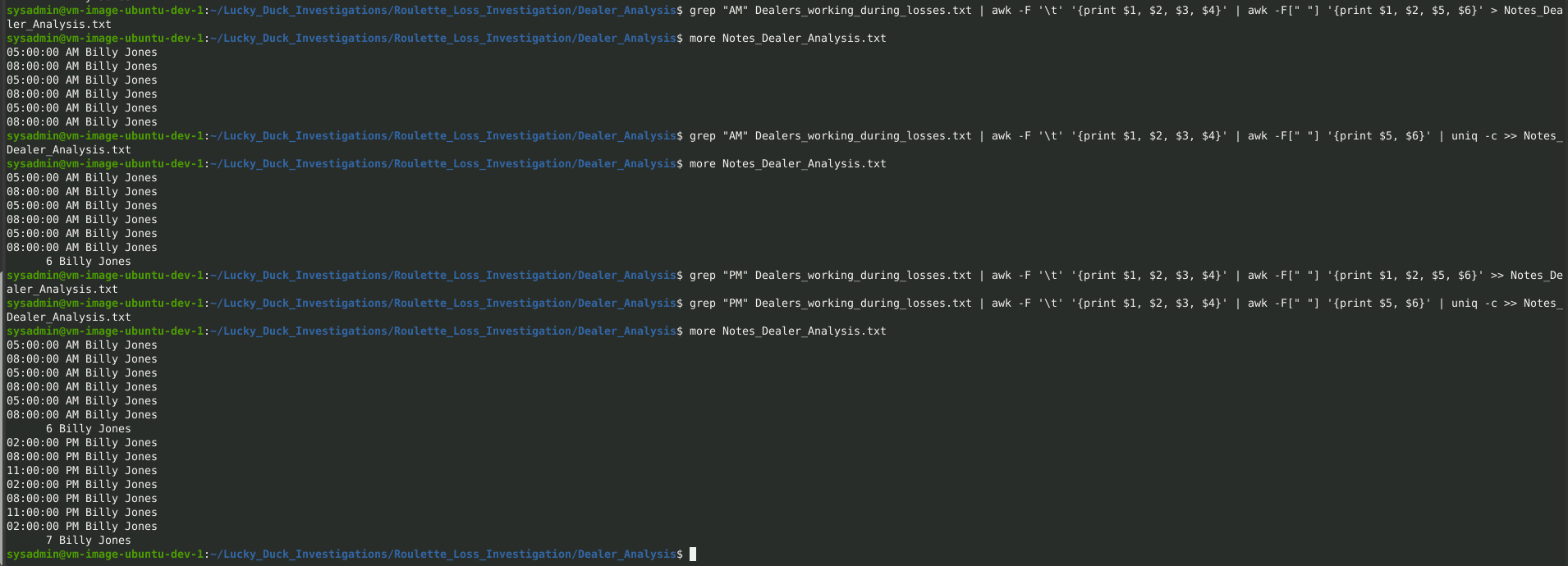
1. grep "05:00:00 AM" 0310\_Dealer\_schedule.txt | awk -F '\t' '{print $1, $2, $3, $4}' > Notes\_Dealer\_Analysis.txt





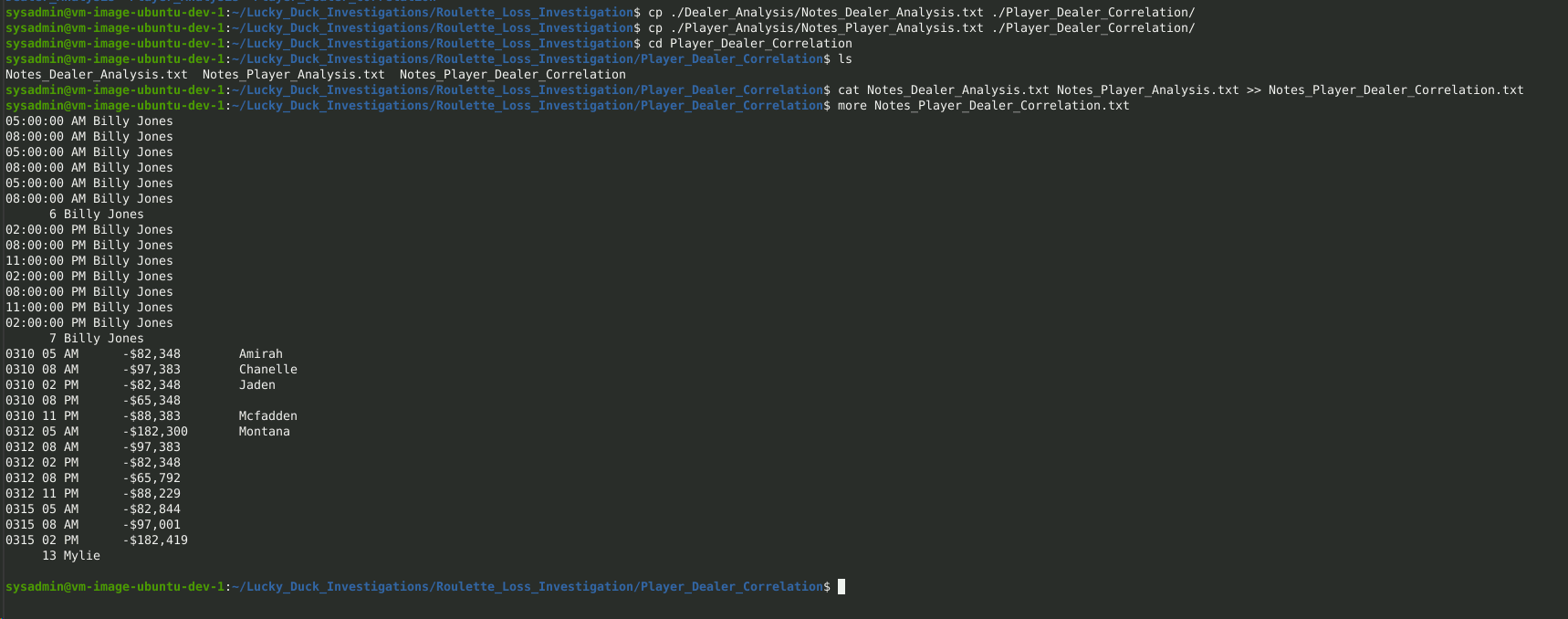
grep "AM" Dealers\_working\_during\_losses.txt | awk -F '\t' '{print $1, $2, $3, $4}' | awk -F[" "] '{print $1, $2, $5, $6}' > Notes\_Dealer\_Analysis.txt

grep "PM" Dealers\_working\_during\_losses.txt | awk -F '\t' '{print $1, $2, $3, $4}' | awk -F[" "] '{print $5, $6}' | uniq -c >> Notes\_Dealer\_Analysis.txt

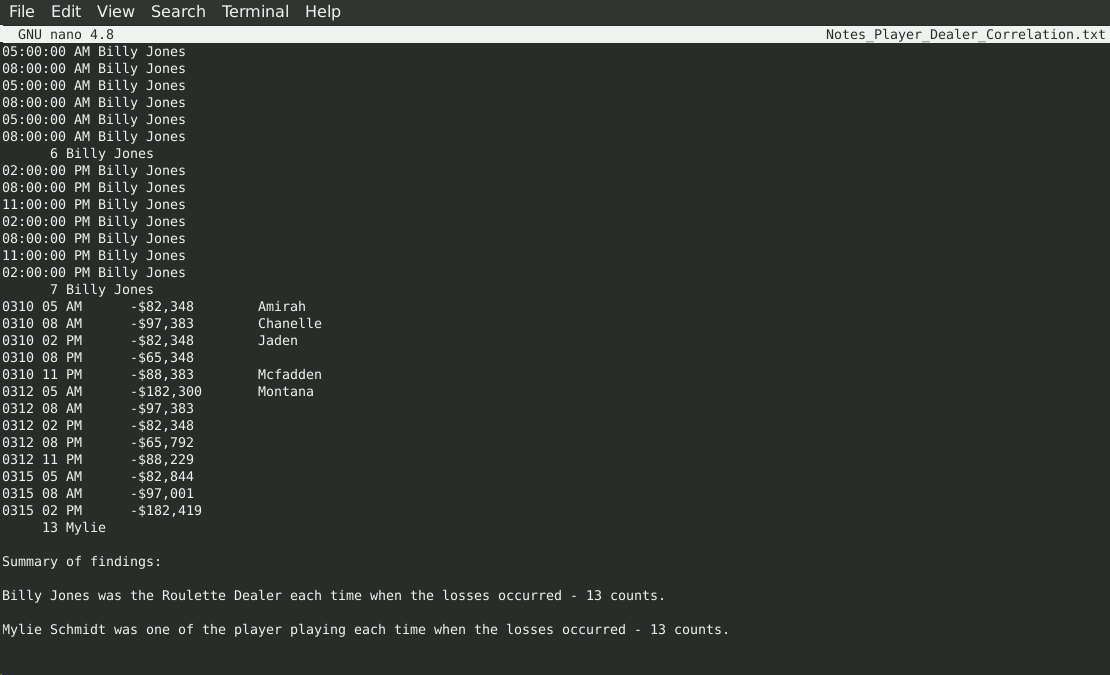


**Step 3: Correlating the Evidence**

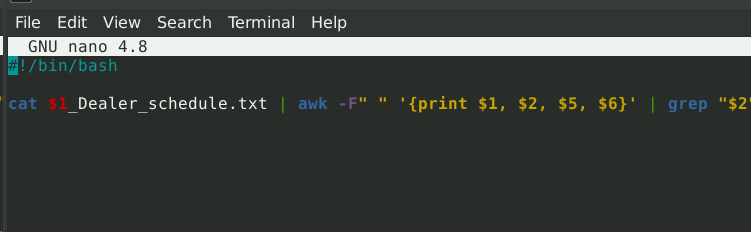
Player\_Dealer\_Correlation

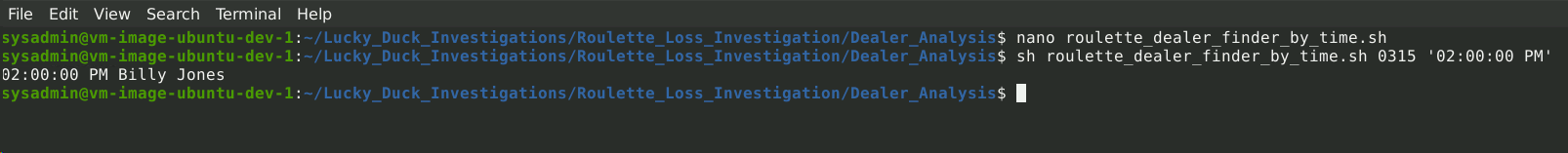


Putting the finding summary: Only the summary bits are edited manually.



Writing scripts:





Compressing the files: Completed as per the instructions.

Submitting the Google link: Completed as per the instructions.

The End.