

Week 3 Homework: A High Stakes Investigation

Scenario

You have just been hired by Lucky Duck Casino as a security analyst.

- Lucky Duck has lost a significant amount of money on the roulette tables over the last month.
- The largest losses occurred on March 10, 12, and 15.
- Your manager believes there is a player working with a Lucky Duck dealer to steal money at the roulette tables.
- The casino has a large database with data on wins and losses, player analysis, and dealer schedules.
- You are tasked with navigating, modifying, and analyzing these data files to gather evidence on the rogue player and dealer.
- You will prepare several evidence files to assist the prosecution.
- You must work quickly as Lucky Duck can't afford any more losses.

Lucky Duck Casino has provided you with the following files if required:

- [Roulette Player Data: Week of March 10](#)
- [Employee Dealer Schedule: Week of March 10](#)

Note: The instructions ask you to set up the files using a wget command, but the files are also provided in compressed zip format if the command does not work.

****Utilize cheat sheet and instructions from Google bookmark wget**
<https://gist.github.com/Dammien/4af98e05f9c51c2da007cc70d62bf562>
<https://linuxize.com/post/wget-command-examples/>
<https://www.computerhope.com/unix/wget.htm>

Lab Environment

- You will use your local Vagrant virtual machine for today's activities. Please note that instructors and students have different access credentials.
 - Username: sysadmin
 - Password: cybersecurity

Instructions

Use your command-line skills to uncover the identities of the rogue casino player and dealer colluding to scam Lucky Duck out of thousands of dollars.

After your investigation, you will provide a summary of your findings to the casino.

Step 1: Investigation Preparation

Your first task is to set up directories to prepare for your investigation.

1. Begin by making a single directory titled Lucky_Duck_Investigations.
 - `mkdir Lucky_Duck_Investigations`
 - `ls`
2. In this directory, create a directory for this specific investigation titled Roulette_Loss_Investigation.
 - `cd Lucky_Duck_Investigations`
 - `mkdir Roulette_Loss_Investigation`
 - `ls`
3. In Roulette_Loss_Investigation, create the following directories:
 - Player_Analysis to investigate the casino player.

- Dealer_Analysis to investigate the dealers.
- Player_Dealer_Correlation to summarize your findings of the collusion.

```

○ mkdir Lucky_Duck_Investigation
○ cd
○ cd Lucky_Duck_Investigation/
○ ls
○ mkdir Roulette_Loss_Investigation
○ ls
○ cd Roulette_Loss_Investigation/
○ ls
○ mkdir Player_Analysis
○ ls
○ mkdir Dealer_Analysis
○ ls
○ mkdir Player_Dealer_Correlation

```

4. Create empty files called Notes_<Directory Name> under each subdirectory to store investigation notes.
 - For example: Notes_Player_Analysis

```

○ touch Dealer_Analysis
○ ls
○ touch Notes_Player_Analysis
○ ls
○ touch Notes_Player_Dealer_Correlation
○ ls

```

Step 2: Gathering Evidence

Your next task is to move evidence from the specific days that Lucky Duck experienced heavy losses at the roulette tables.

1. Navigate to the directory where you created the Lucky_Duck_Investigations directory and run the following command to set up the evidence files:
 - `wget "https://tinyurl.com/3-HW-setup-evidence" && chmod +x ./3-HW-setup-evidence && ./3-HW-setup-evidence`

After running this command your current directory should have the following subdirectories:

- Dealer_Schedules_0310: Contains the dealer schedules.
- Lucky_Duck_Investigations: Contains the investigation directories and notes files you created.
- Roulette_Player_WinLoss_0310: Contains the data for player wins and losses.

```

• wget "https://tinyurl.com/3-HW-setup-evidence" && chmod +x ./3-HW-setup-evidence && ./3-HW-setup-evidence

```

2. The Dealer_Schedules_0310 and Roulette_Player_WinLoss_0310 directories contain the dealer schedules and win/loss player data from the roulette tables during the week of March 10.
 - Since the losses occurred on March 10, 12, and 15, move the schedules for those days into the directory Dealer_Analysis.
 - Move the files for those days into the directory Player_Analysis.

```

• ls
• cd Dealer_Schedules_03
• ls

```

- `cd ..`
- `ls`
- `cd Roulette_Player_WinLoss_0310/`
- `ls`
- `cd ..`
- `cd Roulette_Loss_Investigation/`
- `ls`
- `cd ..`
- `ls`
- `cd Dealer_Schedules_0310/`
- `122 ls`
- `mv 0310_Dealer_schedule`
`/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis`
- `ls`
- `mv 0312_Dealer_schedule`
`/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis`
- `mv 0315_Dealer_schedule`
`/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis`
- `cd ../Roulette_Player_WinLoss_0310/`
- `ls`
- `mv 0310_win_loss_player_data`
`/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis`
- `mv 0312_win_loss_player_data`
`/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis`
- `mv 0315_win_loss_player_data`
`/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis`

Step 3: Correlating the Evidence

Your next task is to correlate the large losses from the roulette tables with the dealer schedule. This will help you determine which dealer and player are colluding to steal money from Lucky Duck.

Note: Winnings for Lucky Duck Casino are indicated with a positive number and losses are indicated with a negative number.

Complete the player analysis.

1. Navigate to the Player_Analysis directory.

- `cd ../Player_Analysis/`
- `ls`
- `pwd`

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

- `cat 03* | grep -> Roulette_Losses`
- `cat Roulette_Losses | grep -i mylie`

3. Place those results in a file called Roulette_Losses.

- `nano Notes_Player_Analysis`

- o `cat Notes_Player_Analysis`

4. Preview the file `Roulette_Losses` and analyze the data.
 - o Record in the `Notes_Player_Analysis` file:
 - The times the losses occurred on each day.
 - If there is a certain player that was playing during each of those times.
 - The total count of times this player was playing.
 - **Hint:** Use the `wc` command to find this value.

- o `cat Roulette_Losses | grep -i mylie | wc -l`
- o `echo "found 13 times" >> Notes_Player_Analysis`
- o `cat Notes_Player_Analysis`

Complete the dealer analysis.

1. Navigate to the `Dealer_Analysis` directory.

- o `cd ../Dealer_Analysis`

2. This file contains the dealer schedules for the various Lucky Duck casino games: Blackjack, Roulette, and Texas Hold 'Em.
 - o Preview the schedule to view the format and to understand how the data is separated.

Hour--AM/PM--Black Jack (FN-LN)--Roulette (FN-LN)--Texas Hold 'Em (FN-LN)

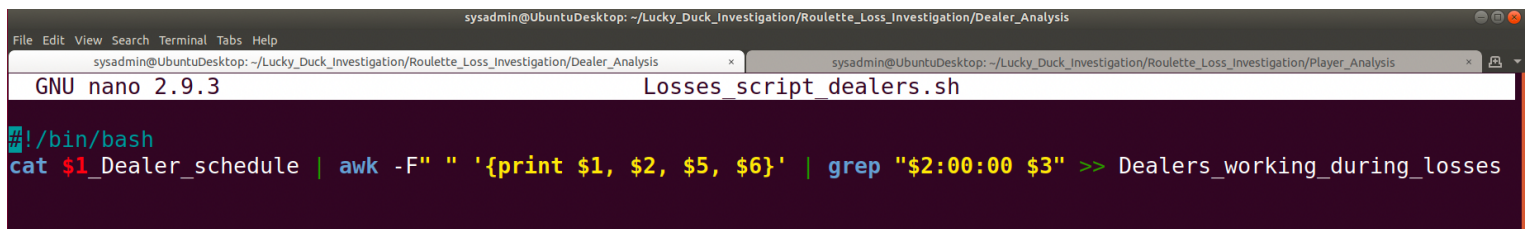
3. Using your findings from the player analysis, create a separate script to look at each day and time that you determined losses occurred. Use `awk`, pipes, and `grep` to isolate out the following four fields:

- o `cat 0310`
- o `cat 0310_Dealer_schedule`
- o `awk '{print $1}' 03*` **Time**
- o `awk '{print $2}' 03*` **AMPM**
- o `nano Notes_Dealer_Analysis`

- o `awk '{print $6}' 03*` **LN** **"Billy Jones"**
- o `echo "Billy Jones on duty for all Mylie S events" >> Notes_Dealer_Analysis`

**** <https://www.shortcutfoo.com/app/dojos/awk/cheatsheet>**

- o **Time**
- o **a.m./p.m.**
- o First name of roulette dealer
- o **Last name of roulette dealer**



```
sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
File Edit View Search Terminal Tabs Help
sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis x sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis
GNU nano 2.9.3 Losses script dealers.sh
! /bin/bash
cat $1_Dealer_schedule | awk -F " '{print $1, $2, $5, $6}' | grep "$2:00:00 $3" >> Dealers_working_during_losses
```

For example, if a loss occurred on March 10 at 2 p.m., you would write one script to find the roulette dealer who was working at that specific day and time.

- **Hint:** You will have many scripts, but only a small change is required for each script.

4. Run all of the scripts and append those results to a file called Dealers_working_during_losses.

****Some; not all (Sampling)**

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0312 8 AM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0312 2 PM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0312 11 PM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0315 5 AM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0315 8 AM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0315 2 PM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ./Losses_script_dealers.sh 0315 11 PM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat Dealers_working_during_losses
```

5. Preview your file Dealers_working_during_losses and analyze the data.

- Record in the Notes_Dealer_Analysis file:
 - The primary dealer working at the times where losses occurred.
 - How many times the dealer worked when major losses occurred.
 - `cat Dealers_working_during_losses | grep -i jones | wc -l`
 - **answer: 13**

6. Complete the player/employee correlation.

- In the notes file of the Player_Dealer_Correlation directory, add a summary of your findings noting the player and dealer you believe are colluding to scam Lucky Duck
- Make sure to document your specific reasons for this finding.

Step 4: Scripting Your Tasks

Your manager is impressed with the work you have done so far on the investigation.

They tasked you with building a shell script that can easily analyze future employee schedules. They will use this to determine which employee was working at a specific time in the case of future losses.

Complete the following tasks:

1. Remain in the Dealer_Analysis directory. Develop a shell script called roulette_dealer_finder_by_time.sh that can analyze the employee schedule to easily find the roulette dealer at a specific time.

Hint: You will be using a script similar to the one you created for the dealer analysis step, but you will not output the results into a file.

- Design the shell script to accept the following two arguments:
 - One for the date (four digits)
 - One for the time

Note: The argument should be able to accept a.m. or p.m.

****Just rename the folder it will go to...**

```
sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
File Edit View Search Terminal Tabs Help
sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis
GNU nano 2.9.3 Losses_script dealers.sh
!/bin/bash
cat $1_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6}' | grep "$2:00:00 $3" >> Dealers_working_during_losses
```

2. Test your script on the schedules to confirm it outputs the correct dealer at the time specified.

****Utilize cheat sheet and instructions from Google bookmark testing script**
<https://opensource.com/article/19/12/testing-bash-script>
<https://www.computerhope.com/unix/bash/test.htm> cd

Bonus

- In case there is future fraud on the other Lucky Duck games, create a shell script called roulette_dealer_finder_by_time_and_game.sh that has the three following arguments:
 - Specific time
 - Specific date
 - Casino game being played

Hint: The argument does not need to name the specific casino game.

Submission Guidelines

- Move the following to the Player_Dealer_Correlation directory: (cp instead of mv)
 - All note files
 - Evidence files:
 - Roulette_Losses
 - Dealers_working_during_losses
 - Shell script(s)
- Compress the Player_Dealer_Correlation folder to a zip file and submit it.

****Setup folder on Desktop to move to and make sure to set-up to share and make it permanent**

```
○ tar cvvf Homework.tar Player_Dealer_Correlation/
○ ls
○ gzip Homework.tar
○ sudo cp Homework.tar.gz /media/sf_Shared_VM/
```

Week 3 Homework-High Stakes Investigation Terminal Commands

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Player_WinLoss_0310$ cd ../
Dealer_Schedules_0310/    Roulette_Player_WinLoss_0310/
Roulette_Loss_Investigation/
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Player_WinLoss_0310$ cd ../../
sysadmin@UbuntuDesktop:~$ ls
Cybersecurity-Lesson-Plans  history.txt      Public      Templates
Desktop                    Lucky_Duck_Investigation  python      Videos
Documents                  Music            shadow_copy
Downloads                  Pictures         sudo_access.txt
sysadmin@UbuntuDesktop:~$ cd Lucky_Duck_Investigation/
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation$ ls
3-HW-setup-evidence  Roulette_Loss_Investigation
Dealer_Schedules_0310  Roulette_Player_WinLoss_0310
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation$ cd Roulette_Loss_Investigation/
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ ls
Dealer_Analysis  Player_Analysis  Player_Dealer_Correlation
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ cd Dealer_Analysis/
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule  0315_Dealer_schedule
0312_Dealer_schedule  Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ clear

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule  0315_Dealer_schedule
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ locate
locate: no pattern to search for specified
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ updatedb
updatedb: can not open a temporary file for `/var/lib/mlocate/mlocate.db'
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ sudo
updatedb
[sudo] password for sysadmin:
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ locate
0312_Dealer_schedule
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis/0312_Dealer_schedule
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule  0312_Dealer_schedule  0315_Dealer_schedule  Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat 0310
cat: 0310: No such file or directory
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat
0310_Dealer_schedule
Hour AM/PM  BlackJack_Dealer_FNAME LAST      Roulette_Dealer_FNAME LAST
Texas_Hold_EM_dealer_FNAME LAST

12:00:00 AM  Izabela Parrish  Marlene Mcpherson  Madina Britton
01:00:00 AM  Billy Jones      Saima Mcdermott    Summer-Louise Hammond
02:00:00 AM  Summer-Louise Hammond  Abigale Rich  John-James Hayward
03:00:00 AM  John-James Hayward  Evalyn Howell  Chyna Mercado
04:00:00 AM  Chyna Mercado      Cleveland Hanna    Katey Bean
```

05:00:00 AM	Katey Bean	Billy Jones	Evalyn Howell
06:00:00 AM	Evalyn Howell	Saima Mcdermott	Cleveland Hanna
07:00:00 AM	Cleveland Hanna	Abigale Rich	Billy Jones
08:00:00 AM	Rahima Figueroa	Billy Jones	Madina Britton
09:00:00 AM	Marlene Mcpherson	Cleveland Hanna	Summer-Louise Hammond
10:00:00 AM	Izabela Parrish	Madina Britton	John-James Hayward
11:00:00 AM	Madina Britton	Summer-Louise Hammond	Chyna Mercado
12:00:00 PM	Summer-Louise Hammond	John-James Hayward	Katey Bean
01:00:00 PM	John-James Hayward	Chyna Mercado	Evalyn Howell
02:00:00 PM	Chyna Mercado	Billy Jones	Cleveland Hanna
03:00:00 PM	Katey Bean	Evalyn Howell	Rahima Figueroa
04:00:00 PM	Evalyn Howell	Cleveland Hanna	Billy Jones
05:00:00 PM	Billy Jones	Rahima Figueroa	Summer-Louise Hammond
06:00:00 PM	Rahima Figueroa	John-James Hayward	John-James Hayward
07:00:00 PM	Marlene Mcpherson	Chyna Mercado	Chyna Mercado
08:00:00 PM	Saima Mcdermott	Billy Jones	Katey Bean
09:00:00 PM	Abigale Rich	Evalyn Howell	Billy Jones
10:00:00 PM	Evalyn Howell	Katey Bean	Cleveland Hanna
11:00:00 PM	Cleveland Hanna	Billy Jones	Rahima Figueroa

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ awk '{print $1}'
```

```
0310_Dealer_schedule 0312_Dealer_schedule 0315_Dealer_schedule Notes_Dealer_Analysis
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ awk '{print $1}' 03*
```

```
Hour
```

```
12:00:00
01:00:00
02:00:00
03:00:00
04:00:00
05:00:00
06:00:00
07:00:00
08:00:00
09:00:00
10:00:00
11:00:00
12:00:00
01:00:00
02:00:00
03:00:00
04:00:00
05:00:00
06:00:00
07:00:00
08:00:00
09:00:00
10:00:00
11:00:00
Hour
```


12:00:00
01:00:00
02:00:00
03:00:00
04:00:00
05:00:00
06:00:00
07:00:00
08:00:00
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08:00:00
09:00:00
10:00:00
11:00:00
Hour

12:00:00
01:00:00
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03:00:00
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06:00:00
07:00:00
08:00:00
09:00:00
10:00:00
11:00:00
12:00:00
01:00:00
02:00:00
03:00:00
04:00:00
05:00:00
06:00:00
07:00:00
08:00:00
09:00:00
10:00:00
11:00:00

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$  
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ awk '{print  
$6}' 03*
```

LAST

Mcperson
Mcdermott
Rich
Howell
Hanna
Jones
Mcdermott
Rich
Jones
Hanna
Britton
Hammond
Hayward
Mercado
Jones
Howell
Hanna
Figueroa
Hayward
Mercado
Jones
Howell
Bean
Jones
LAST

Mcperson
Mcdermott
Rich
Howell
Hanna
Jones
Mcdermott
Rich
Jones
Hanna
Britton
Hammond
Hayward
Mercado
Jones
Howell
Hanna
Figueroa
Hayward

Mercado
Jones
Howell
Bean
Jones
LAST

Mcpherson
Mcdermott
Rich
Howell
Hanna
Jones
Mcdermott

Rich
Jones
Hanna
Britton
Hammond
Hayward
Mercado

Jones
Howell
Hanna
Figueroa
Hayward
Mercado

Jones
Howell
Bean
Jones
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$ echo "found
13 times" >> Notes_Player_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$ echo "Billy
Jones was only on duty when Mylie S was playing" >> Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$ nano
Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$ cat
Roulette_Losses | grep -i mylie | wc -l
cat: Roulette_Losses: No such file or directory
0
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$ cat
Roulette_Losses | grep -i jones | wc -l
cat: Roulette_Losses: No such file or directory
0
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis\$ cat
Dealer_Analysis | grep -i jones | wc -l
cat: Dealer_Analysis: No such file or directory
0

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat Dealer_Analysis/ | grep -i jones | wc -l
cat: Dealer_Analysis/: No such file or directory
0
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ awk '{print $6}' 03*
LAST
```

Mcpherson
Mcdermott
Rich
Howell
Hanna
Jones
Mcdermott
Rich
Jones
Hanna
Britton
Hammond
Hayward
Mercado
Jones
Howell
Hanna
Figueroa
Hayward
Mercado
Jones
Howell
Bean
Jones
LAST

Mcpherson
Mcdermott
Rich
Howell
Hanna
Jones
Mcdermott
Rich
Jones
Hanna
Britton
Hammond
Hayward
Mercado
Jones
Howell
Hanna

Figueroa
Hayward
Mercado
Jones
Howell
Bean
Jones
LAST

Mcpherson
Mcdermott
Rich
Howell
Hanna
Jones
Mcdermott
Rich
Jones
Hanna
Britton
Hammond
Hayward
Mercado
Jones
Howell
Hanna
Figueroa
Hayward
Mercado
Jones
Howell
Bean
Jones

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat Dealer_Analysis | grep -i jones | wc -l
```

```
cat: Dealer_Analysis: No such file or directory
```

```
0
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ touch Dealers_working_during_losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
```

```
0310_Dealer_schedule 0315_Dealer_schedule      Notes_Dealer_Analysis
```

```
0312_Dealer_schedule Dealers_working_during_losses Notes_Player_Analysis
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano Dealers_working_during_losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat Dealers_working_during_losses
```

```
#!/bin/bash
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano Dealers_working_during_losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ chmod +x Dealers_working_during_losses.sh
chmod: cannot access 'Dealers_working_during_losses.sh': No such file or directory
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Notes_Dealer_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Player_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ naon
Dealers_working_during_losses
```

Command 'naon' not found, did you mean:

- command 'nano' from snap nano (5.2+pkg-7d56)
- command 'nano' from deb nano
- command 'nmon' from deb nmon

See 'snap info <snapname>' for additional versions.

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano
Dealers_working_during_losses
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Notes_Dealer_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Player_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano
Dealers_working_during_losses
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Dealers_working_during_losses.sh Notes_Player_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ chmod +x
Dealers_working_during_losses.sh
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Dealers_working_during_losses.sh Notes_Player_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat
Dealers_working_during_losses.sh
#!/bin/bash
cat 0310_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6} | grep "$1 $2"
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$
./Dealers_working_during_losses.sh 05:00:00 AM
./Dealers_working_during_losses.sh: line 2: unexpected EOF while looking for matching ``'
./Dealers_working_during_losses.sh: line 5: syntax error: unexpected end of file
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano
Dealers_working_during_losses.sh
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$
./Dealers_working_during_losses.sh 05:00:00 AM
05:00:00 AM Billy Jones
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano
Dealers_working_during_losses
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Dealers_working_during_losses.sh Notes_Dealer_Analysis
```

```
0312_Dealer_schedule Dealers_working_during_losses Losses_script_dealers.sh      Notes_Player_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat
Losses_script_dealers.sh
#!/bin/bash
cat 0310_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6}' | grep "$1 $2" >> Dealers_working_during_losses

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ rm
Dealers_working_during_losses.sh
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Losses_script_dealers.sh Notes_Player_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ chmod +x
Losses_script_dealers.sh
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Losses_script_dealers.sh Notes_Player_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls -l
total 28
-rw-r--r-- 1 sysadmin sysadmin 1489 Dec 15 12:45 0310_Dealer_schedule
-rw-r--r-- 1 sysadmin sysadmin 1489 Dec 15 12:45 0312_Dealer_schedule
-rw-r--r-- 1 sysadmin sysadmin 1489 Dec 15 12:45 0315_Dealer_schedule
-rw-r--r-- 1 sysadmin sysadmin  90 Dec 16 19:14 Dealers_working_during_losses
-rwxr-xr-x 1 sysadmin sysadmin 124 Dec 16 19:28 Losses_script_dealers.sh
-rw-r--r-- 1 sysadmin sysadmin 153 Dec 15 18:10 Notes_Dealer_Analysis
-rw-r--r-- 1 sysadmin sysadmin 15 Dec 15 18:00 Notes_Player_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$
./Losses_script_dealers.sh 05:00:00 AM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
0310_Dealer_schedule 0315_Dealer_schedule      Losses_script_dealers.sh Notes_Player_Analysis
0312_Dealer_schedule Dealers_working_during_losses Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat
Dealers_working_during_losses
#!/bin/bash
cat 0310_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6}' | grep "$1 $2"
```

05:00:00 AM Billy Jones

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$
./Losses_script_dealers.sh 08:00:00 AM
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat
Dealers_working_during_losses
#!/bin/bash
cat 0310_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6}' | grep "$1 $2"
```

05:00:00 AM Billy Jones

08:00:00 AM Billy Jones

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano
Losses_script_dealers.sh
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$  
./Losses_script_dealers.sh 02 PM
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat  
Dealers_working_during_losses  
#!/bin/bash  
cat 0310_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6} | grep "$1 $2"
```

05:00:00 AM Billy Jones

08:00:00 AM Billy Jones

02:00:00 PM Billy Jones

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano  
Dealers_working_during_losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat  
Dealers_working_during_losses
```

05:00:00 AM Billy Jones

08:00:00 AM Billy Jones

02:00:00 PM Billy Jones

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano -l  
Dealers_working_during_losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ ls
```

0310_Dealer_schedule 0315_Dealer_schedule Losses_script_dealers.sh Notes_Player_Analysis

0312_Dealer_schedule Dealers_working_during_losses Notes_Dealer_Analysis

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano  
Losses_script_dealers.sh
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$  
./Losses_script_dealers.sh 0310 11 PM
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat  
Dealers_working_during_losses
```

05:00:00 AM Billy Jones

08:00:00 AM Billy Jones

02:00:00 PM Billy Jones

11:00:00 PM Billy Jones

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano  
Losses_script_dealers.sh
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cat  
Dealers_working_during_losses | grep -i jones | wc -l
```

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```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano  
Dealers_working_during_losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano  
Notes_Dealer_Analysis
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cd ../
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ ls
```

Dealer_Analysis Player_Analysis Player_Dealer_Correlation

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ nano  
Player_Dealer_Correlation/
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ cd Dealer_Analysis
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ nano  
Notes_Dealer_Analysis
```



```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cd ../
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ ls
Dealer_Analysis Notes_Dealer_Analysis Player_Analysis Player_Dealer_Correlation
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ nano Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ nano Notes_Dealer_Analysis
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ cat
Notes_Player_Dealer_Correlation
-On 3/10, 3/12 and 3/15 Mylie Schmidt played at the same times there were losses occurred at 5 AM, 8 AM, 2 PM,
8 PM, 11 PM except for 3/15 it was only at 5 AM, 8 AM and 2 PM
-Billy Jones was the dealer on duty for Roulette when Mylie Schmidt was playing when losses occurred
-The dealer, Billy Jones, worked 13 times when the major losses occurred

```

The research completed with the many commands we utilized in the VM with the correlation all of the data/files that were provided by the company in the files that were sent to us, does support the above conclusions.

These two commands help me figure out who the player was

```

-cat 03* | grep ->Roulette_Losses
-cat Roulette_Losses | grep -i mylie (since her name popped up in the first three lines I figured it was a
possibility)

```

The following commands allowed me to narrow down the Dealer during the losses in Roulette

```

awk '{print $1}' 03* (Time)
awk '{print $2}' 03* (AMPM)
awk '{print $5}' 03* (FN)
awk '{print $6}' 03* (LN)

```

The following command was put in Nano to assist in narrowing down Billy Jones as the dealer

```

cat $1_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6}' | grep "$2:00:00 $3" >> Dealers_working_during_losses

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cp *
../Player_Dealer_Correlation/

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ cd
../Player_Dealer_Correlation/

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Dealer_Correlation$ ls
0310_Dealer_schedule Dealers_working_during_losses Notes_Player_Dealer_Correlation

```

```

0312_Dealer_schedule Losses_script_dealers.sh roulette_dealer_finder_by_time.sh

```

```

0315_Dealer_schedule Notes_Dealer_Analysis

```

```

Dealer_finder_by_time Notes_Player_Analysis

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ ls

```

```

Dealer_Analysis Homework.tar Notes_Dealer_Analysis Player_Analysis Player_Dealer_Correlation

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ gzip Homework.tar

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ ls

```

```

Dealer_Analysis Homework.tar.gz Notes_Dealer_Analysis Player_Analysis Player_Dealer_Correlation

```

```

ysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation$ ls

```

```

Dealer_Analysis Notes_Dealer_Analysis Player_Dealer_Correlation

```

```

Homework.tar.gz Player_Analysis

```

History

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis$ history

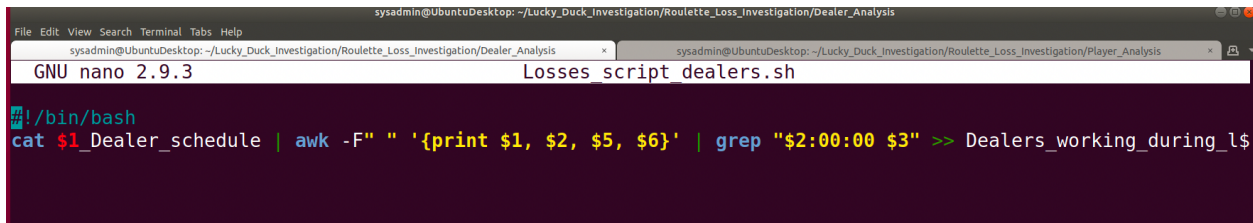
```

```
60 mkdir Lucky_Duck_Investigation
61 cd
62 cd Lucky_Duck_Investigation/
63 ls
64 mkdir Roulette_Loss_Investigation
65 ls
66 cd Roulette_Loss_Investigation/
67 ls
68 mkdir Player_Analysis
69 ls
70 mkdir Dealer_Analysis
71 ls
72 mkdir Player_Dealer_Correlation
73 ls
74 cd Dealer_Analysis/
75 touch Notes_Dealer_Analysis
76 ls
77 touch Dealer_Analysis
78 ls
79 rm Notes_Dealer_Analysis
80 ls
81 touch Notes_Dealer_Analysis
82 ls
83 rm Dealer_Analysis
84 ls
85 ../
86 cd /Lucky_Duck_Investigation/Roulette_Loss_Investigation
87 ..
88 ls
89 cd ~
90 ls
91 cd Lucky_Duck_Investigation/
92 ls
93 cd Roulette_Loss_Investigation/
94 ls
95 cd Player_Analysis/
96 touch Notes_Player_Analysis
97 ls
98 cd ..
99 ls
100 cd Player_Dealer_Correlation/
101 touch Notes_Player_Dealer_Correlation
102 ls
103 clear
104 cd ~
105 ls
106 cd Lucky_Duck_Investigation/
107 wget "https://tinyurl.com/3-HW-setup-evidence" && chmod +x ./3-HW-setup-evidence && ./3-HW-setup-evidence
108 ls
109 cd Dealer_Schedules_0310/
```

```
110 ls
111 cd ..
112 ls
113 cd Roulette_Player_WinLoss_0310/
114 ls
115 cd ..
116 cd Roulette_Loss_Investigation/
117 ls
118 cd ..
119 clear
120 ls
121 cd Dealer_Schedules_0310/
122 ls
123 mv 0310_Dealer_schedule
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
124 ls
125 mv 0312_Dealer_schedule
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
126 mv 0315_Dealer_schedule
127 mv 0315_Dealer_schedule
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
128 cd ../Roulette_Player_WinLoss_0310/
129 ls
130 mv 0310_win_loss_player_data
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis
131 mv 0312_win_loss_player_data
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis
132 mv 0315_win_loss_player_data
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis
133 clear
134 ls
135 cd ../..
136 ls
137 cd Lucky_Duck_Investigation/
138 ls
139 cd Roulette_Loss_Investigation/
140 ls
141 cd Dealer_Analysis/
142 ls
143 clear
144 ls
145 locate
146 updatedb
147 sudo updatedb
148 locate 0312_Dealer_schedule
149 ls
150 cat 0310
151 cat 0310_Dealer_schedule
152 awk '{print $1}' 03*
153 history
154 nano Notes_Dealer_Analysis
```

```
155 awk '{print $21}' 03*
156 awk '{print $2}' 03*
157 awk '{print $4}' 03*
158 awk '{print $6}' 03*
159 echo "found 13 times" >> Notes_Player_Analysis
160 echo "Billy Jones was only on duty when Mylie S was playing" >> Notes_Dealer_Analysis
161 nano Notes_Dealer_Analysis
162 history
163 cat Roulette_Losses | grep -i mylie | wc -l
164 cat Roulette_Losses | grep -i jones | wc -l
165 cat Dealer_Analysis | grep -i jones | wc -l
166 cat Dealer_Analysis/ | grep -i jones | wc -l
167 awk '{print $6}' 03*
168 cat Dealer_Analysis | grep -i jones | wc -l
169 touch Dealers_working_during_losses
170 ls
171 nano Dealers_working_during_losses
172 cat Dealers_working_during_lo
173 nano Dealers_working_during_losses
174 chmod +x Dealers_working_during_losses.sh
175 ls
176 naon Dealers_working_during_losses
177 nano Dealers_working_during_losses
178 ls
179 nano Dealers_working_during_losses
180 ls
181 chmod +x Dealers_working_during_losses.sh
182 ls
183 cat Dealers_working_during_losses.sh
184 ./Dealers_working_during_losses.sh 05:00:00 AM
185 nano Dealers_working_during_losses.sh
186 ./Dealers_working_during_losses.sh 05:00:00 AM
187 nano Dealers_working_during_losses
188 ls
189 cat Losses_script_dealers.sh
190 rm Dealers_working_during_losses.sh
191 ls
192 chmod +x Losses_script_dealers.sh
193 ls
194 ls -l
195 ./Losses_script_dealers.sh 05:00:00 AM
196 ls
197 cat Dealers_working_during_losses
198 ./Losses_script_dealers.sh 08:00:00 AM
199 cat Dealers_working_during_losses
200 nano Losses_script_dealers.sh
201 ./Losses_script_dealers.sh 02 PM
202 cat Dealers_working_during_losses
203 nano Dealers_working_during_losses
204 cat Dealers_working_during_losses
205 nano -l Dealers_working_during_losses
```

```
206 ls
207 nano Losses_script_dealers.sh
208 ./Losses_script_dealers.sh 0310 11 PM
209 cat Dealers_working_during_losses
210 nano Losses_script_dealers.sh
```



```
sysadmin@UbuntuDesktop: ~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Dealer_Analysis
GNU nano 2.9.3 Losses_script_dealers.sh
! /bin/bash
cat $1_Dealer_schedule | awk -F" " '{print $1, $2, $5, $6}' | grep "$2:00:00 $3" >> Dealers_working_during_losses
```

```
212 ./Losses_script_dealers.sh 0312 5 AM
213 cat Losses_script_dealers.sh
214 cat Dealers_working_during_losses
215 ./Losses_script_dealers.sh 0312 8 AM
216 ./Losses_script_dealers.sh 0312 2 PM
217 ./Losses_script_dealers.sh 0312 11 PM
218 ./Losses_script_dealers.sh 0315 5 AM
219 ./Losses_script_dealers.sh 0315 8 AM
220 ./Losses_script_dealers.sh 0315 2 PM
221 ./Losses_script_dealers.sh 0315 11 PM
222 cat Dealers_working_during_losses
223 ./Losses_script_dealers.sh 0315 2 PM
224 nano Dealers_working_during_losses
225 ./Losses_script_dealers.sh 0315 05 PM
226 nano Dealers_working_during_losses
227 ./Losses_script_dealers.sh 0315 11 PM
228 cat Losses_script_dealers.sh | grep -i billy | wc -l
229 cat Losses_script_dealers.sh | grep -i jones | wc
230 cat Dealers_working_during_losses | grep -i jones | wc
231 nano Dealers_working_during_losses
232 cat Dealers_working_during_losses | grep -i jones | wc -l
233 nano Notes_Dealer_Analysis
234 ./Losses_script_dealers.sh 0312 08 PM
235 ./Losses_script_dealers.sh 0310 08 PM
236 ./Losses_script_dealers.sh 0315 08 PM
237 nano Dealers_working_during_losses
238 cat Dealers_working_during_losses | grep -i jones | wc -l
239 nano Dealers_working_during_losses
240 nano Notes_Dealer_Analysis
241 cd ../
242 ls
243 nano Player_Dealer_Correlation/
244 cd Dealer_Analysis
245 nano Notes_Dealer_Analysis
246 cd ../
247 ls
248 nano Notes_Dealer_Analysis
249 cat Notes_Player_Dealer_Correlation
```

```
250 cd Dealer_Analysis/
251 ls
252 cat Notes_Player_Analysis
253 cd ../~
254 cd ../
255 ls
256 cd Roulette_Loss_Investigation/
257 ls
258 cd Player_Dealer_Correlation/
259 pwd
260 cd ../
267 gz
268 ls
269 cd Player_Dealer_Correlation/
270 ls
271 history
272 clear
273 cd ../
274 ls
275 cd Dealer_Analysis/
276 ls
277 touch roulette_dealer_finder_by_time.sh
278 ls
279 cd Losses_script_dealers.sh
280 cat Losses_script_dealers.sh
281 ls
282 cat roulette_dealer_finder_by_time.sh
283 nano roulette_dealer_finder_by_time.sh
284 touch Dealer_finder_by_time
285 ls
286 nano roulette_dealer_finder_by_time.sh
287 cat roulette_dealer_finder_by_time.sh
288 cd ../
289 ls
290 cd Player_Dealer_Correlation/
291 pwd
292 mv Notes_Dealer_Analysis
/home/sysadmin/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Dealer_Correlation
293 la
294 ls
295* cat Notes_Player_Dealer_Correlation
296 cd ../
297 ls
298 cd Dealer_Analysis/
299 ls
300 cp * ../Player_Dealer_Correlation/
301 cd ../Player_Dealer_Correlation/
302 ls
303 cd ../
304 gzip -r Player_Dealer_Correlation/tar.gz
305 gzip ./Player_Dealer_Correlation/tar.gz
```

```

306 ls
307 tar
308 tar cvvf Homework.tar Player_Dealer_Correlation/
309 ls
310 gzip Homework.tar
311 ls
312 cp Homework.tar.gz /media/sf_Shared_VM/
313 sudo cp Homework.tar.gz /media/sf_Shared_VM/
314 ls
315 cd Player_Dealer_Correlation/
316 ls
317 cat Notes_Dealer_Analysis
318 cd ../
319 ls
320 cat Notes_Dealer_Analysis
321 cd Player_Dealer_Correlation/
322 ls
323 cat Notes_Player_Dealer_Correlation

```

Tab 2

```

Sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat
0310_win_loss_player_data | grep -

```

```

05:00:00 AM  -$82,348      Amirah Schneider,Nola Portillo, Mylie Schmidt,Suhayb Maguire,Millicent Betts,Avi
Graves
08:00:00 AM  -$97,383      Chanelle Tapia, Shelley Dodson , Valentino Smith, Mylie Schmidt
02:00:00 PM  -$82,348      Jaden Clarkson, Kaidan Sheridan, Mylie Schmidt
08:00:00 PM  -$65,348      Mylie Schmidt, Trixie Velasquez, Jerome Klein ,Rahma Buckley
11:00:00 PM  -$88,383      Mcfadden Wasim, Norman Cooper, Mylie Schmidt
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ clear

```

```

sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat 03* |
grep -

```

```

05:00:00 AM  -$82,348      Amirah Schneider,Nola Portillo, Mylie Schmidt,Suhayb Maguire,Millicent Betts,Avi
Graves
08:00:00 AM  -$97,383      Chanelle Tapia, Shelley Dodson , Valentino Smith, Mylie Schmidt
02:00:00 PM  -$82,348      Jaden Clarkson, Kaidan Sheridan, Mylie Schmidt
08:00:00 PM  -$65,348      Mylie Schmidt, Trixie Velasquez, Jerome Klein ,Rahma Buckley
11:00:00 PM  -$88,383      Mcfadden Wasim, Norman Cooper, Mylie Schmidt

05:00:00 AM  -$182,300     Montana Kirk, Alysia Goodman, Halima Little, Etienne Brady, Mylie Schmidt
08:00:00 AM  -$97,383      Rimsha Gardiner,Fern Cleveland, Mylie Schmidt,Kobe Higgins
02:00:00 PM  -$82,348      Mae Hail, Mylie Schmidt,Ayden Beil
08:00:00 PM  -$65,792      Tallulah Rawlings,Josie Dawe, Mylie Schmidt,Hakim Stott, Esther Callaghan, Ciaron
Villanueva
11:00:00 PM  -$88,229      Vlad Hatfield,Kerys Frazier,Mya Butler, Mylie Schmidt,Lex Oakley,Elin Wormald

05:00:00 AM  -$82,844      Arjan Guzman,Sommer Mann, Mylie Schmidt

```

08:00:00 AM -\$97,001 Lilianna Devlin,Brendan Lester, Mylie Schmidt,Blade Robertson,Derrick Schroeder
02:00:00 PM -\$182,419 Mylie Schmidt, Corey Huffman

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat 03* |  
grep -> Roulette_Losses
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ ls  
0310_win_loss_player_data 0315_win_loss_player_data Roulette_Losses  
0312_win_loss_player_data Notes_Player_Analysis
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat  
Roulette_Losses
```

05:00:00 AM -\$82,348 Amirah Schneider,Nola Portillo, Mylie Schmidt,Suhayb Maguire,Millicent Betts,Avi
Graves

08:00:00 AM -\$97,383 Chanelle Tapia, Shelley Dodson , Valentino Smith, Mylie Schmidt

02:00:00 PM -\$82,348 Jaden Clarkson, Kaidan Sheridan, Mylie Schmidt

08:00:00 PM -\$65,348 Mylie Schmidt, Trixie Velasquez, Jerome Klein ,Rahma Buckley

11:00:00 PM -\$88,383 Mcfadden Wasim, Norman Cooper, Mylie Schmidt

05:00:00 AM -\$182,300 Montana Kirk, Alysia Goodman, Halima Little, Etienne Brady, Mylie Schmidt

08:00:00 AM -\$97,383 Rimsha Gardiner,Fern Cleveland, Mylie Schmidt,Kobe Higgins

02:00:00 PM -\$82,348 Mae Hail, Mylie Schmidt,Ayden Beil

08:00:00 PM -\$65,792 Tallulah Rawlings,Josie Dawe, Mylie Schmidt,Hakim Stott, Esther Callaghan, Ciaron
Villanueva

11:00:00 PM -\$88,229 Vlad Hatfield,Kerys Frazier,Mya Butler, Mylie Schmidt,Lex Oakley,Elin Wormald

05:00:00 AM -\$82,844 Arjan Guzman,Sommer Mann, Mylie Schmidt

08:00:00 AM -\$97,001 Lilianna Devlin,Brendan Lester, Mylie Schmidt,Blade Robertson,Derrick Schroeder

02:00:00 PM -\$182,419 Mylie Schmidt, Corey Huffman

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat  
Roulette_Losses | grep -i mylie
```

05:00:00 AM -\$82,348 Amirah Schneider,Nola Portillo, Mylie Schmidt,Suhayb Maguire,Millicent Betts,Avi
Graves

08:00:00 AM -\$97,383 Chanelle Tapia, Shelley Dodson , Valentino Smith, Mylie Schmidt

02:00:00 PM -\$82,348 Jaden Clarkson, Kaidan Sheridan, Mylie Schmidt

08:00:00 PM -\$65,348 Mylie Schmidt, Trixie Velasquez, Jerome Klein ,Rahma Buckley

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02:00:00 PM -\$182,419 Mylie Schmidt, Corey Huffman

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ nano  
Notes_Player_Analysis
```

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat  
Notes_Player_Analysis
```

Found Mylie S. on every loss

```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat  
Roulette_Losses | grep -i mylie | wc -l
```



```
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ echo "found  
13 times" >> Notes_Player_Analysis  
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ cat  
Notes_Player_Analysis  
Found Mylie S. on every loss  
found 13 times  
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$ ls  
0310_win_loss_player_data 0315_win_loss_player_data Roulette_Losses  
0312_win_loss_player_data Notes_Player_Analysis  
sysadmin@UbuntuDesktop:~/Lucky_Duck_Investigation/Roulette_Loss_Investigation/Player_Analysis$
```

History

```
60 cd Lucky_Duck_Investigation/  
61 ls  
62 ls *  
63 cd Roulette_Loss_Investigation/  
64 ls  
65 cd Dealer_Analysis/  
66 pwd  
67 clear  
68 ls  
69 cd ../Player_Analysis/  
70 ls  
71 pwd  
72 ls  
73 clear  
74 ls  
75 cat 0310_win_loss_player_data  
76 cat 0310_win_loss_player_data | grep -  
77 clear  
78 cat 03* | grep -  
79 cat 03* | grep - > Roulette_Losses  
80 ls  
81 cat Roulette_Losses  
82 cat Roulette_Losses | grep -i mylie  
83 nano Notes_Player_Analysis  
84 cat Notes_Player_Analysis  
85 cat Roulette_Losses | grep -i mylie | wc -l  
86 echo "found 13 times" >> Notes_Player_Analysis  
87 cat Notes_Player_Analysis  
88 ls  
89 history
```