cmdmystery

Yue Li

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Get the Clues

First we follow the instructions to get the clues for this task. The instruction suggestes us to find the word 'CLUE' in crimescene.

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery

## cat instructions
grep 'CLUE' mystery/crimescene > clues.txt
cat clues.txt
```

```
## CLUE: Footage from an ATM security camera is blurry but shows that the perpetrator is
a tall male, at least 6'.
## CLUE: Found a wallet believed to belong to the killer: no ID, just loose change, and
 membership cards for AAA, Delta SkyMiles, the local library, and the Museum of Bash His
tory. The cards are totally untraceable and have no name, for some reason.
## CLUE: Questioned the barista at the local coffee shop. He said a woman left right bef
ore they heard the shots. The name on her latte was Annabel, she had blond spiky hair an
d a New Zealand accent.
```

Find Annabel

The third clue provides useful information to us. We need to find a woman with name Annabel. So we search for Annabel in the people file.

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery
grep 'Annabel' mystery/people >annabel.txt
cat annabel.txt
```

```
## Annabel Sun   F   26  Hart Place, line 40
## Oluwasegun Annabel   M   37  Mattapan Street, line 173
## Annabel Church    F   38  Buckingham Place, line 179
## Annabel Fuglsang M   40  Haley Street, line 176
```

There are two female Annabels. We can find them according to the Street and line information, then printing out the results.

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery
head -n 40 mystery/streets/Hart_Place | tail -n 1
head -n 179 mystery/streets/Buckingham_Place | tail -n 1
```

```
## SEE INTERVIEW #47246024
## SEE INTERVIEW #699607
```

Then we have the interview number. Looking at the interview information respectively:

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery
cat mystery/interviews/interview-47246024
cat mystery/interviews/interview-699607
```

```
## Ms. Sun has brown hair and is not from New Zealand.  Not the witness from the cafe.
## Interviewed Ms. Church at 2:04 pm.  Witness stated that she did not see anyone she co
uld identify as the shooter, that she ran away as soon as the shots were fired.
##
## However, she reports seeing the car that fled the scene.  Describes it as a blue Hond
a, with a license plate that starts with "L337" and ends with "9"
```

Find the Car

The second interview is useful to us. Then we should find the car with liscence plate starting with 'L337' and ending with '9'; also it should be 'Blue' and 'Honda'. Besides the height of the owner should be more than 6. After making sure there is no person taller than 7', we can just serach for word 'Height: 6'. We use simple regular expressions to serch for liscence:

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery
grep -A 4 'License Plate L337.*9' mystery/vehicles | grep -A 3 -B 1 'Honda' | grep -B 2
-A 2 'Blue' > L3379
grep -B 1 'Height: 6' L3379 | grep 'Owner:' > name
sed 's/Owner: //' name > name1
cat name1
```

```
## Erika Owens
## Joe Germuska
## Jeremy Bowers
## Jacqui Maher
```

We find four such cars. Then we can use the second clue. The killer's name should exist in all the membership files of AAA, Delta SkyMiles, the local library and the Museum of Bash History. The serch goes like this:

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery
grep -Ff name1 mystery/memberships/AAA | grep -Ff mystery/memberships/Delta_SkyMiles | g
rep -Ff mystery/memberships/Terminal_City_Library | grep -Ff mystery/memberships/Museum_
of_Bash_History
```

```
## Jeremy Bowers
## Jacqui Maher
```

The Killer

Two names remain. The only thing we have not checked yet is that the killer is a man; so we print the information for these two names:

```
cd /Users/yueli/Desktop/2017\ Fall/course/36750/assignments-yuelicmu/cmdmurder/clmystery
grep 'Jacqui Maher' mystery/people
grep 'Jeremy Bowers' mystery/people
```

```
## Jacqui Maher F   40  Andover Road, line 224
## Jeremy Bowers    M   34  Dunstable Road, line 284
```

So the killer is **Jeremy Bowers**.