We used the "Jumbo" community version of john the ripper to find the following password(https://github.com/magnumripper/john)

## Oilers password: igor%Vyazmikin

#### Process:

We got the players names on the early 90s roster for the oiler(89-95) using a site called "www.hockeydb.com". Then we wrote a python script(part4.py) to handle the different mangling options and pass the output into a new file. Then we simply supplied the mangled word list to john the ripper. It took about 5 hours to compile the names and write the python script. It took john the ripper 0 seconds to find the password when supplied the mangled wordList.

### Commands Ran on the command line

- 1. We gathered the player names on the early 90s roster (89-85) into a file named "OilersWordList"
- 2. Supplied that wordlist to the python program to handle the mangling and produce another file with the mangled names:
  - python3 OilersWordList mangledOilersList
- 3. The python program then we ran that file with JTR against the hashed passwords:
  - nice -19 ./john --wordlist=OilersWordList part4Hashes

## English word with leet password: rel47ionship

#### Process:

We got a list of 275,000 english words from a git repository (<a href="https://github.com/words/an-array-of-english-words">https://github.com/words/an-array-of-english-words</a>). Then we wrote a python script(leetpwd.py) to handle the conversions of 2 different characters for words and passed the output into a file. Then supplied the converted words to john the ripper. It took about 5 hours to do research on leet and create a good algorithm to convert the words based on the assignment description. It took john the ripper 1 minute and 30s to find the password when supplied the converted wordlist.

### Commands Ran on the command line

- 1. To generate list of english words(based on the website above):
  - words > englishWords
- 2. Supply the file to the python program to create a wordlist with the appropriate leet conversions:
  - python3 leetpwd.py englishWords
- 3. The python program will create a file called "leetOption1", then we ran that file with JTR against the hashed passwords:
  - nice -19 ./john --wordlist=leetOption1 part4Hashes

# Hexadecimal number password: bbf0f777

#### Process:

We created a character set of 0-9 and a-f, then used incremental mode with that character set on the hashes given to us. It took john the ripper about 22hrs to find the correct password.(21:44:09)

Commands Ran on the command line

- 1. Created pot file character set:
  - echo ":0123456789abcdef" > hex.pot
- 2. Created character set from pot file:
  - ./john --make-charset=hex.chr -pot=hex.pot
- 3. Running incremental mode with the character set file (specified in john-local.conf) with john the ripper.
  - nice -19 ./john --incremental=hex part4Hashes

## Spanish Word password: desengoznara

### Process:

We got a list of 636,000 spanish words from a website (<a href="https://www.npmjs.com/package/an-array-of-spanish-words">https://www.npmjs.com/package/an-array-of-spanish-words</a>), then we supplied the list to john the ripper against the hashes given to us. It took about 15 seconds to get the correct password.

### Commands Ran on the command line

- 1. To generate list of spanish words(based on the website above);
  - palabras > spanishWords

- 2. Running the generated wordList with JTR:
  - o nice -19 ./john --wordlist=spanishWords part4Hashes