Password Spraying

The first step I took was to gather some names for username creation. My teammate Arcelia provided a long list of names she gathered from Ensign.edu. If I were to do this attack again in the future, I'd use a python web scraper. I then took that list and converted it to csv format with Excel.

```
#!/usr/bin/python3
#Example usage:
# scripName.py -i userlist.csv
import sys
import getopt
import csv

def main():
    inputfile = ''
    # Read the argument for the userlist file
    if len(sys.argv) < 2:
        print("Example usage: ./createUserList.py -i --userlistFile--")
        exit(1)
    else:
        opts, argv = getopt.getopt(sys.argv[1:],"i:")
        for opt, arg in opts:
            #Specify -i for the input parameter
            #This if function allows for different switches to be used
            if opt in ['-i']:
                inputfile = arg
                '''
                #Code errors out when try to use -h.  Not sure why.
            elif opt in ['-h' or '--help']:
                print('Specify -i for the input parameter')
                print('Example usage: scripName.py -i userlist.csv')
                '''
        # Read in the columns for first and last name...
        # This is not built to have column header names...
        with open(inputfile) as csv_file:
            csv_reader = csv.reader(csv_file, delimiter=",")
            for row in csv_reader:
                firstname = row[0]
```

I then used the above script provided by the pcn3rd to convert the csv file to a list of possible usernames. I struggled for a while to get this script to work because I didn't understand the need for -i.

```python
#!/usr/bin/python3

import sys
import getopt
import csv

def main():
    inputfile = 'C:\Users\Jetfi\Desktop\usernameList.csv'
    # Read the argument for the userlist file

    with open(inputfile) as csv_file:
            csv_reader = csv.reader(csv_file, delimiter=",")
            for row in csv_reader:
                firstname = row[0]
                lastname = row[1]
                # first.last
                print(firstname + "." + lastname)
                # first_last
                print(firstname + "_" + lastname)
                # f.last
                print(firstname[0:1] + "." + lastname)
                # first.l
                print(firstname + "." + lastname[0:1])



if __name__=="__main__":
    main()
```

Due to my confusion I tried to create a new script as shown above. I then watched the course instructional videos and realized I was missing -i. I then updated the original script to clarify the issue.

```
┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ python3 ./usernameCreater.py -i usernameList.csv > usernameList03

┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ cat usernameList03
Jill.Boss
Jill_Boss
J.Boss
Jill.B
Brandon.Bowen
Brandon_Bowen
B.Bowen
Brandon.B
Brandon.Bowen
Brandon_Bowen
B.Bowen
Brandon.B
Kenia.Cabral
Kenia_Cabral
K.Cabral
Kenia.C
Diego.Canaviri
Diego_Canaviri
D.Canaviri
Diego.C
Doug.Carlile
Doug_Carlile
D.Carlile
Doug.C
```

Above is shown the results of using the pcn3rd script correctly.

```
┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ awk '$0=$0"@windomain.local"' usernameList03 > emailList02

┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ cat emailList02
Jill.Boss@windomain.local
Jill_Boss@windomain.local
J.Boss@windomain.local
Jill.B@windomain.local
Brandon.Bowen@windomain.local
Brandon_Bowen@windomain.local
B.Bowen@windomain.local
Brandon.B@windomain.local
Brandon.Bowen@windomain.local
Brandon_Bowen@windomain.local
B.Bowen@windomain.local
Brandon.B@windomain.local
Kenia.Cabral@windomain.local
Kenia_Cabral@windomain.local
K.Cabral@windomain.local
```

Next, I used the awk command to append the email domain to the usernames.

```
1251  cook ensign 1900-2022
1252  cook 1900-2022 > years1900-2022
1254  cook summer,Summer,fall,Fall,winter,Winter,spring,Spring 1900-2022
1255  cook summer,Summer,fall,Fall,winter,Winter,spring,Spring,1900-2022
1256  cook summer,Summer,fall,Fall,winter,Winter,spring,Spring 1900-2022
1257  cook summer,Summer,fall,Fall,winter,Winter,spring,Spring 1900-2022 > seasonYear
1259  cook ensign,Ensign 1900-2022 > ensignYear
1261  cook ensign,Ensign 1-9 ?
1262  cook ensign,Ensign 1-9 ? > ensignx?
1270  cook qwerty,ytrewq,QWERTY 1-1000
1271  cook qwerty,ytrewq,QWERTY 1-1000,1234,4321
1273  cook qwerty,ytrewq,QWERTY 1-2000
1274  cook qwerty,ytrewq,QWERTY 1-2000 > qwertyxxxx
1276  cook qwerty,ytrewq,QWERTY,1qaz,2wsx,zaq1,xsw2,3edc,cde3,4rfv,vfr4,5tgb,bgt5,6yhn,nhy6,7ujm,mju7 1-2000
1277  cook qwerty,ytrewq,QWERTY,1qaz,2wsx,zaq1,xsw2,3edc,cde3,4rfv,vfr4,5tgb,bgt5,6yhn,nhy6,7ujm,mju7 1-2000 > keyboardPatterxxxx
1278  cook qwerty,ytrewq,QWERTY,1qaz,2wsx,zaq1,xsw2,3edc,cde3,4rfv,vfr4,5tgb,bgt5,6yhn,nhy6,7ujm,mju7,1234,4321,asdf,fdsa,jkl\;,\;lkj qwerty,ytrewq,QWERTY
```

I then found a powerful wordlist/password generation tool named cook. Using this tool, I created multiple wordlists meeting the criteria listed in the course instructional video.

```
┌──(agent22㉿ ks5)-[~/Documents/customWordlists]
└─$ ll
total 208868
-rw-r--r-- 1 agent22 agent22 71325800 Jan 24 20:41  allCustomWordlists_20220124
-rw-r--r-- 1 agent22 agent22 71200157 Jan 24 20:42  allCustomWordlists_sortedUnq__20220124
drwxr-xr-x 2 agent22 agent22     4096 Jan 24 20:26  commands
-rw-r--r-- 1 agent22 agent22      324 Jan 24 20:26 'ensignx?'
-rw-r--r-- 1 agent22 agent22     2706 Jan 24 20:13  ensignYear
-rw-r--r-- 1 agent22 agent22     5037 Jan 24 20:24  keyboardPatterns
-rw-r--r-- 1 agent22 agent22 70944926 Jan 24 20:40  keyboardPatternsNumbers
-rw-r--r-- 1 agent22 agent22   299181 Jan 24 20:22  keyboardPatterxxxx
-rw-r--r-- 1 agent22 agent22    62679 Jan 24 20:20  qwertyxxxx
-rw-r--r-- 1 agent22 agent22    10332 Jan 24 20:11  seasonYear
-rw-r--r-- 1 agent22 agent22      615 Jan 24 20:09  years1900-2022
```

The wordlists are shown above. I then combined and sorted the wordlists into the top two files shown above.

```
┌──(agent22㉿ ks5)-[~/Documents/customWordlists]
└─$ wc -l allCustomWordlists_sortedUnq__20220124
5319887 allCustomWordlists_sortedUnq__20220124
```

Using this combined wordlist and the email list I attempted to fuzz/brute force the login for qdpm. Unfortunately, this fuzz would have taken an excessive amount of time. As you can see in the above screenshot, I generated over five million unique passwords.

```
┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ cat ensign* seasonYear > ../orange/passwordList01
```

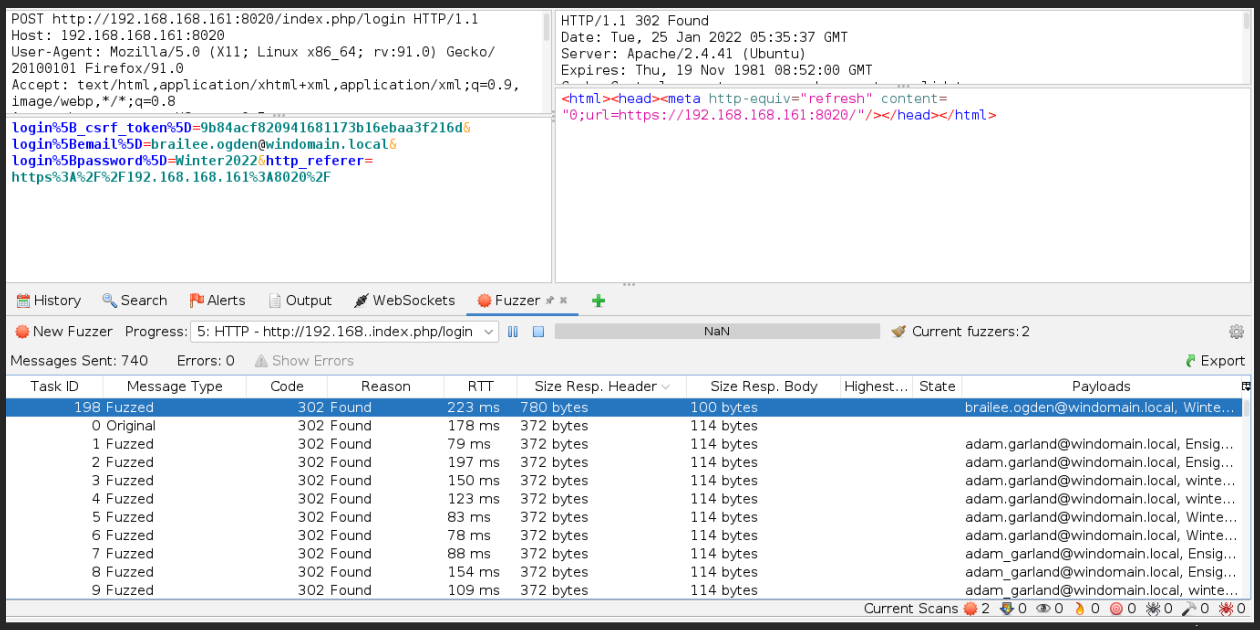
Seeing that this first fuzz would take longer than was feasible, I created a much shorter password list. This list was composed of all the ensign and seasonYear based passwords.

```
┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ wc -l passwordList01_unq
3266 passwordList01_unq

┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ wc -l emailAdressList
172 emailAdressList

┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ bc
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2(
This is free software with ABSOLUTELY NO
For details type `warranty'.
3266*172
561752
```

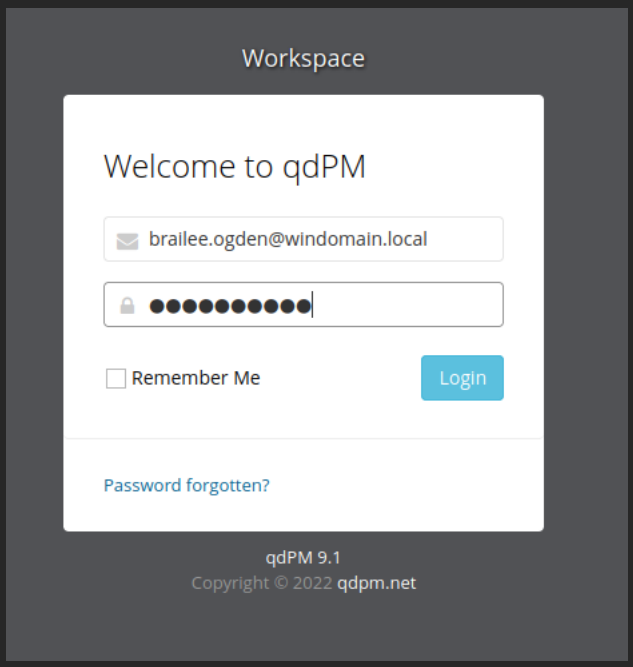
While this list was significantly shorter, combined with the number of emails to fuzz the password spray would still over 500 thousand requests. I attempted this fuzz, but it was also taking an excessively long time.

```
┌──(agent22㉿ ks5)-[~/Documents/orange]
└─$ wc -l passwordList_short
6 passwordList_short
```

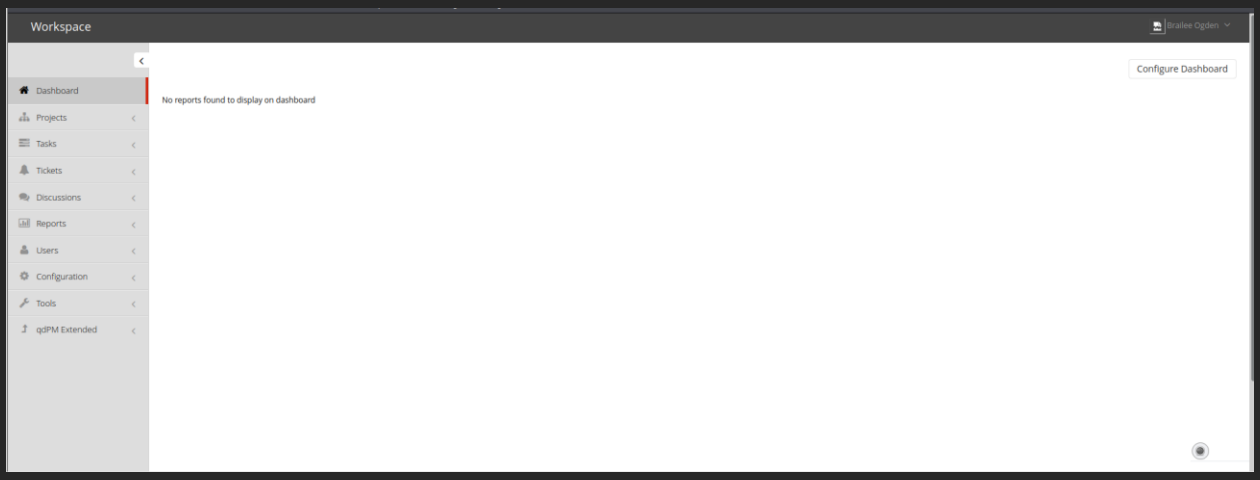
I then created a password list based on the list used in the video. Using this list and the email list I fuzzed the qdpm website.



Using the password spray/fuzz I found a login for qdpm. In an actual penetration test this would have taken much longer, but the correct password was provided in the video.



Using the username and password found in the password spray I successfully logged into the qdpm web portal.


Workspace
Braillee Ogden
Configure Dashboard
No reports found to display on dashboard
Dashboard
Projects
Tasks
Tickets
Discussions
Reports
Users
Configuration
Tools
qdPM Extended