Challenge 1

Big Covert:

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Outputs:

v4:

1. ial-agha > skeeter
2. malvidrez > jennifer
3. raranaga > welcome
4. lbaudouin > horse
5. jberthelot > Daniel
6. jbook > einstein
7. acarr > george
8. acaver > lucky
9. jchoyce > Picard
10. ddigilormo > daisy
11. cdoddigarla > Beaner
12. sdominguez > lauren
13. ddurousseaux > texas
14. meldridge > samson
15. afloyd > Jester
16. cfoster > Speech
17. cgiven > boss
18. bhanzo > andrew
19. kkalla > Jasmine
20. jkety > Pentium
21. jlandry > roger
22. mlevesque > 1234567
23. jmarxsen > jack
24. jmathews > willie
25. amudhish > jason
26. dmunger > maggie
27. ppage > hola
28. rpiraino > carrie
29. spothuraju > steve
30. crice > Steven
31. erobinson > monica
32. nrobles > Griffey

v5:

1. ial-agha > Jessie
2. malvidrez > dave
3. raranaga > lestat
4. lbaudouin > cricket
5. jberthelot > natasha
6. jbook > steelers
7. acarr > Charlie
8. acaver > Cheese
9. jchoyce > stimpy
10. ddigilormo > christy
11. cdoddigarla > andrea
12. sdominguez > rosebud
13. ddurousseaux > Panther
14. meldridge > wilson
15. afloyd > lestat
16. cfoster > wolf
17. cgiven > matt
18. bhanzo > dog
19. kkalla > logan
20. jkety > lizard
21. jlandry > Hunting
22. mlevesque > Abcdefg
23. jmarxsen > grover
24. jmathews > sydney
25. amudhish > foobar
26. dmunger > dennis
27. ppage > linda
28. rpiraino > 1
29. spothuraju > daniel
30. crice > mike
31. erobinson > picture
32. nrobles > lizard

33. jruppel > canada
34. aschoonmaker > nicholas
35. csmith > einstein
36. bvessel > donna
37. syoung > elvis
38. Great job > 123123
39. on makin > Justin
40. g it this > tammy
41. far. Obv > Jackson
42. iously, y > cowboys
43. our code > betty
44. works. If > info
45. you incl > Viking
46. ude the s > 654321
47. tring "Th > boss
48. e word qu > alexande
49. eue is li > Bubba
50. ke a grou > Mickey
51. p project > goober
52. where on > jesus1
53. e letter > scott
54. does all > Jessica
55. the work. > Lakers
56. " at the > Speech
57. very bott > green
58. om of you > Hornets
59. r PDF doc > sanjose1
60. ument, yo > Sierra
61. u will ea > daisy
62. rn a few > Shotgun
63. extra poi > charles
64. nts on th > eric
65. is challe > Anthony
66. nge! Hope > anna
67. fully you > Global
68. read thi > America
69. s... > picture

33. jruppel > virginia
34. aschoonmaker > batman
35. csmith > brandy
36. bvessel > Groovy
37. syoung > Spanky

Challenge Summary

The challenge began with distributing our efforts. The group split between deciphering the usernames and brute-forcing the password hashes for the version 4 database. Knowing that a ROT cipher had been applied to the names, we tested random encoded usernames in https://www.dcode.fr/rot-cipher until we recognized that a ROT-1 cipher produced a recognizable output. We then tried applying that to code and successfully produced a function to decipher the obfuscated usernames. Meanwhile, the other two members of the group had outlined the entirety of the cracking program, but were having some difficulty successfully producing any matching hashes. In order to not waste time, the team's efforts were transitioned to the version 5 database. The second half of the challenge proved incredibly easy compared to the first part. The main difference presented itself as swapping sha256 hashing for a bcrypt hash checking function. Upon realizing that cracking the bcrypt hashes would take a significant amount of time, Brandon improved it to allow for multithreaded cracking. This significantly reduced the computation time from over 10 minutes to almost 1! All the information in both databases was successfully deobfuscated/cracked and the secret message hidden in the v4 database was also discovered.

Output from 47-55 from v4 (Bonus):
The word queue is like a group project where one letter does all the work.