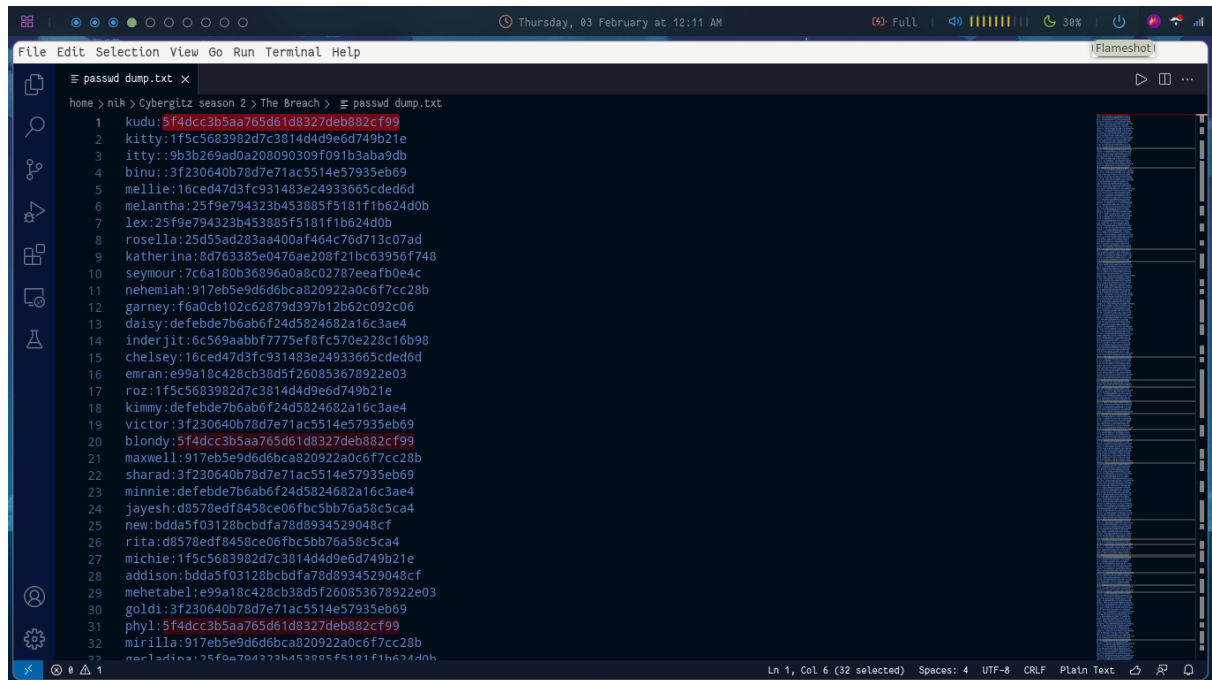


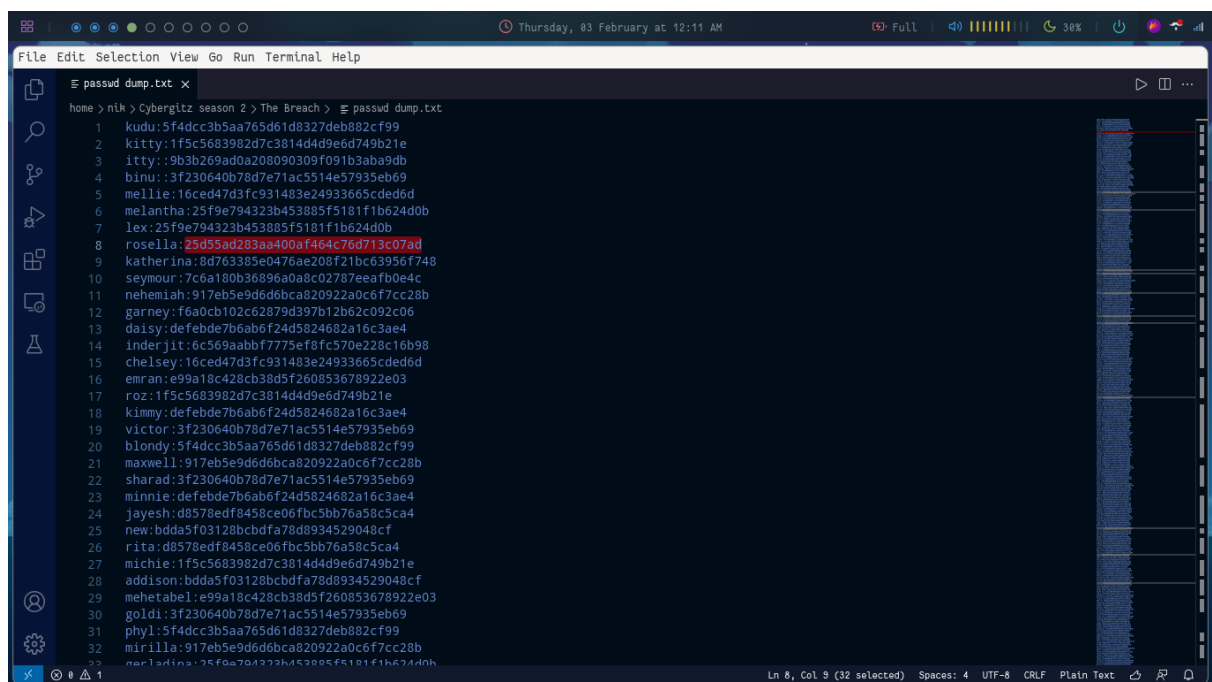
THE BREACH

This question comes under the section of cryptography. We are given a list of usernames with the MD5 hash of their passwords.

On close observation we find that many of their hashes match each other (each one as approx 120 duplicates):

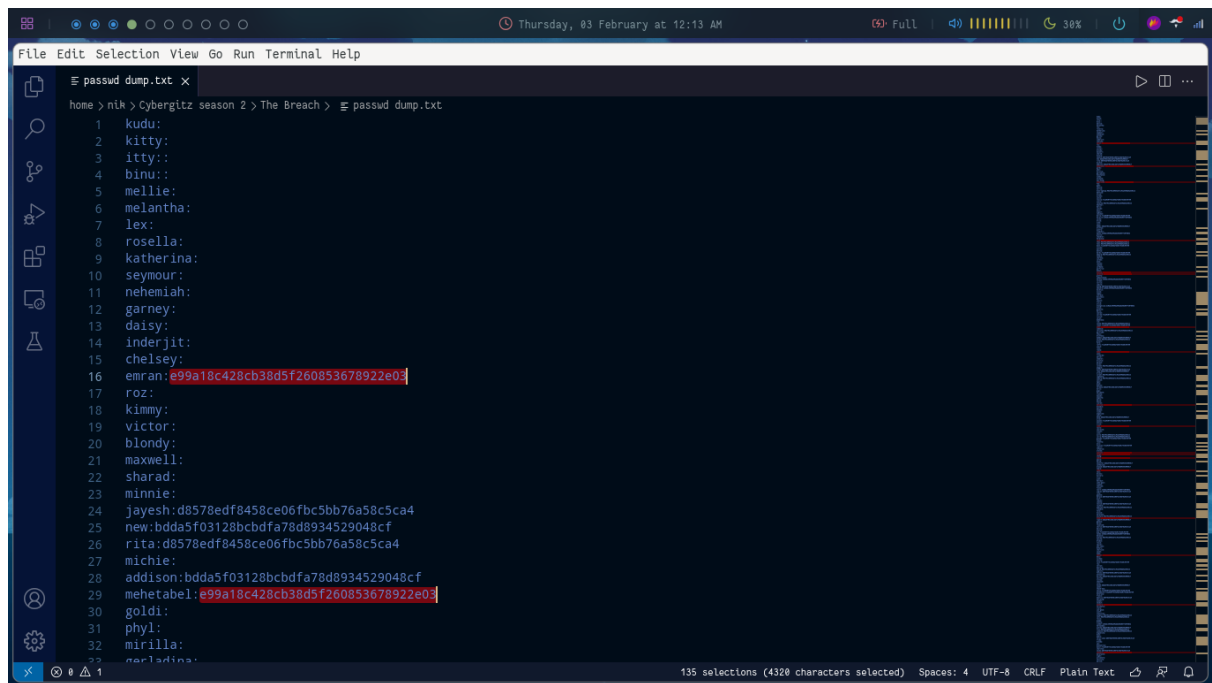


```
home > ntk > Cybergitz season 2 > The Breach > passwd dump.txt
1 kudu:5f4dcc3b5aa765d61d8327deb882cf99
2 kitty:1f5c5683982d7c3814d4d9e6d749b21e
3 itty:9b3b269ad0a208090309f091b3aba9db
4 binu:3f230640b78d7e71ac5514e57935eb69
5 mellie:16ced47d3fc931483e24933665cded6d
6 melantha:25f9e794323b453885f5181f1b624d0b
7 lex:25f9e794323b453885f5181f1b624d0b
8 rosella:25d55ad283aa400af464c76d713c07ad
9 katherina:8d763385e0476ae208f21bc63956f748
10 seymour:7c6a180b36896a0a8c02787eeafb0e4c
11 nehemiah:917eb5e9d6d6bca820922a0c6f7cc28b
12 garney:f6a0cb102c62879d397b12b62c092c06
13 daisy:defebde7b6ab6f24d5824682a16c3ae4
14 nderjit:6c569aabbf7775ef8fc570e228c16b98
15 chelsey:16ced47d3fc931483e24933665cded6d
16 emran:e99a18c428cb38d5f260853678922e03
17 roz:1f5c5683982d7c3814d4d9e6d749b21e
18 kimmy:defebde7b6ab6f24d5824682a16c3ae4
19 victor:3f230640b78d7e71ac5514e57935eb69
20 blondy:5f4dcc3b5aa765d61d8327deb882cf99
21 maxwell:917eb5e9d6d6bca820922a0c6f7cc28b
22 sharad:3f230640b78d7e71ac5514e57935eb69
23 minnie:defebde7b6ab6f24d5824682a16c3ae4
24 jayesh:d8578edf8458ce06fbc5bb76a58c5ca4
25 new:bdda5f03128bcbdfa78d8934529048cf
26 rita:d8578edf8458ce06fbc5bb76a58c5ca4
27 michie:1f5c5683982d7c3814d4d9e6d749b21e
28 addison:bdda5f03128bcbdfa78d8934529048cf
29 mehetabel:e99a18c428cb38d5f260853678922e03
30 goldi:3f230640b78d7e71ac5514e57935eb69
31 phyl:5f4dcc3b5aa765d61d8327deb882cf99
32 mirilla:917eb5e9d6d6bca820922a0c6f7cc28b
nerladina:25f9e794323b453885f5181f1b624d0b
```



```
home > ntk > Cybergitz season 2 > The Breach > passwd dump.txt
1 kudu:5f4dcc3b5aa765d61d8327deb882cf99
2 kitty:1f5c5683982d7c3814d4d9e6d749b21e
3 itty:9b3b269ad0a208090309f091b3aba9db
4 binu:3f230640b78d7e71ac5514e57935eb69
5 mellie:16ced47d3fc931483e24933665cded6d
6 melantha:25f9e794323b453885f5181f1b624d0b
7 lex:25f9e794323b453885f5181f1b624d0b
8 rosella:25d55ad283aa400af464c76d713c07ad
9 katherina:8d763385e0476ae208f21bc63956f748
10 seymour:7c6a180b36896a0a8c02787eeafb0e4c
11 nehemiah:917eb5e9d6d6bca820922a0c6f7cc28b
12 garney:f6a0cb102c62879d397b12b62c092c06
13 daisy:defebde7b6ab6f24d5824682a16c3ae4
14 nderjit:6c569aabbf7775ef8fc570e228c16b98
15 chelsey:16ced47d3fc931483e24933665cded6d
16 emran:e99a18c428cb38d5f260853678922e03
17 roz:1f5c5683982d7c3814d4d9e6d749b21e
18 kimmy:defebde7b6ab6f24d5824682a16c3ae4
19 victor:3f230640b78d7e71ac5514e57935eb69
20 blondy:5f4dcc3b5aa765d61d8327deb882cf99
21 maxwell:917eb5e9d6d6bca820922a0c6f7cc28b
22 sharad:3f230640b78d7e71ac5514e57935eb69
23 minnie:defebde7b6ab6f24d5824682a16c3ae4
24 jayesh:d8578edf8458ce06fbc5bb76a58c5ca4
25 new:bdda5f03128bcbdfa78d8934529048cf
26 rita:d8578edf8458ce06fbc5bb76a58c5ca4
27 michie:1f5c5683982d7c3814d4d9e6d749b21e
28 addison:bdda5f03128bcbdfa78d8934529048cf
29 mehetabel:e99a18c428cb38d5f260853678922e03
30 goldi:3f230640b78d7e71ac5514e57935eb69
31 phyl:5f4dcc3b5aa765d61d8327deb882cf99
32 mirilla:917eb5e9d6d6bca820922a0c6f7cc28b
nerladina:25f9e794323b453885f5181f1b624d0b
```

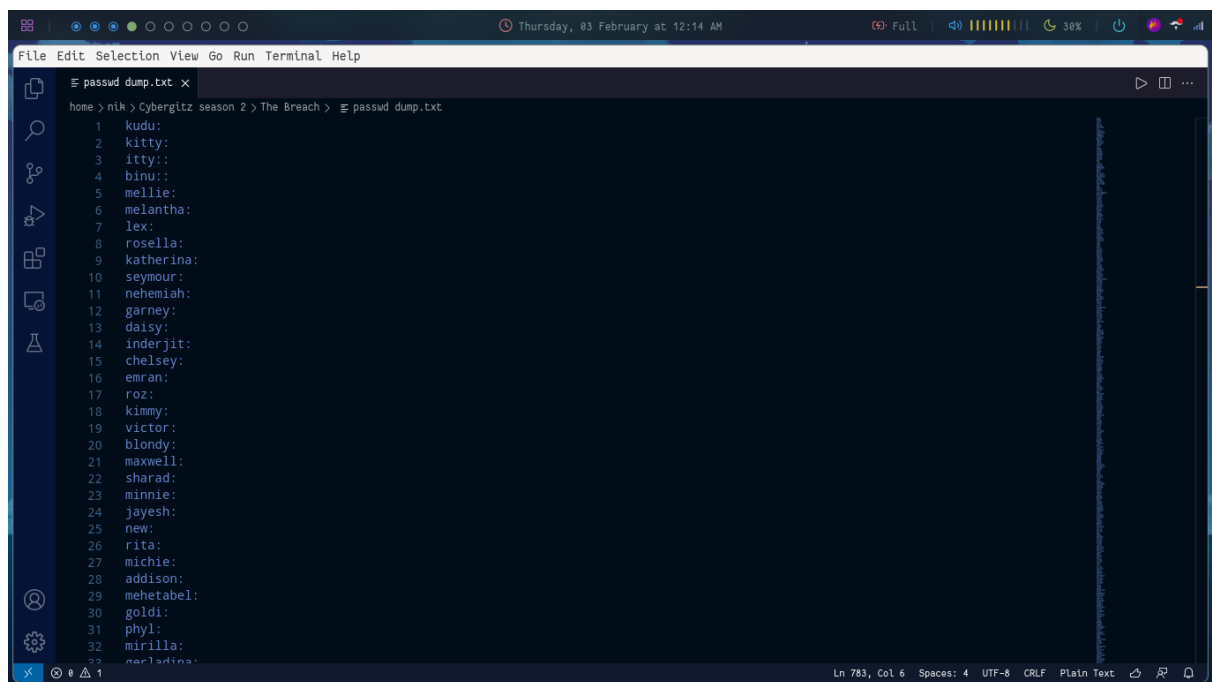
Open the file in VSCode (or any other text editor which can choose duplicate values). In VSCode doing Ctrl+Shift+L would select all the duplicates. And then delete them.



The screenshot shows the VS Code editor with a file named 'passwd.dump.txt' open. The file contains a list of usernames and their corresponding password hashes. Two lines, line 16 and line 29, are highlighted in red, indicating they are selected. These lines contain the same SHA-256 hash: 'e99a18c428cb38d5f260853678922e03'. The status bar at the bottom indicates '135 selections (4320 characters selected)'. The file content is as follows:

```
1 kudu:
2 kitty:
3 itty:
4 binu:
5 mellie:
6 melantha:
7 lex:
8 rosella:
9 katherina:
10 seymour:
11 nehemiah:
12 garney:
13 daisy:
14 nderjit:
15 chelsey:
16 emran:e99a18c428cb38d5f260853678922e03
17 roz:
18 kimmy:
19 victor:
20 blondy:
21 maxwell:
22 sharad:
23 minnie:
24 jayesh:d8578edf8458ce06fbc5bb76a58c5ca4
25 new:bdda5f03128cbdfa78d8934529048cf
26 rita:d8578edf8458ce06fbc5bb76a58c5ca4
27 michie:
28 addison:bdda5f03128cbdfa78d8934529048cf
29 mehetabel:e99a18c428cb38d5f260853678922e03
30 goldi:
31 phyl:
32 mirilla:
33 gerladina:
```

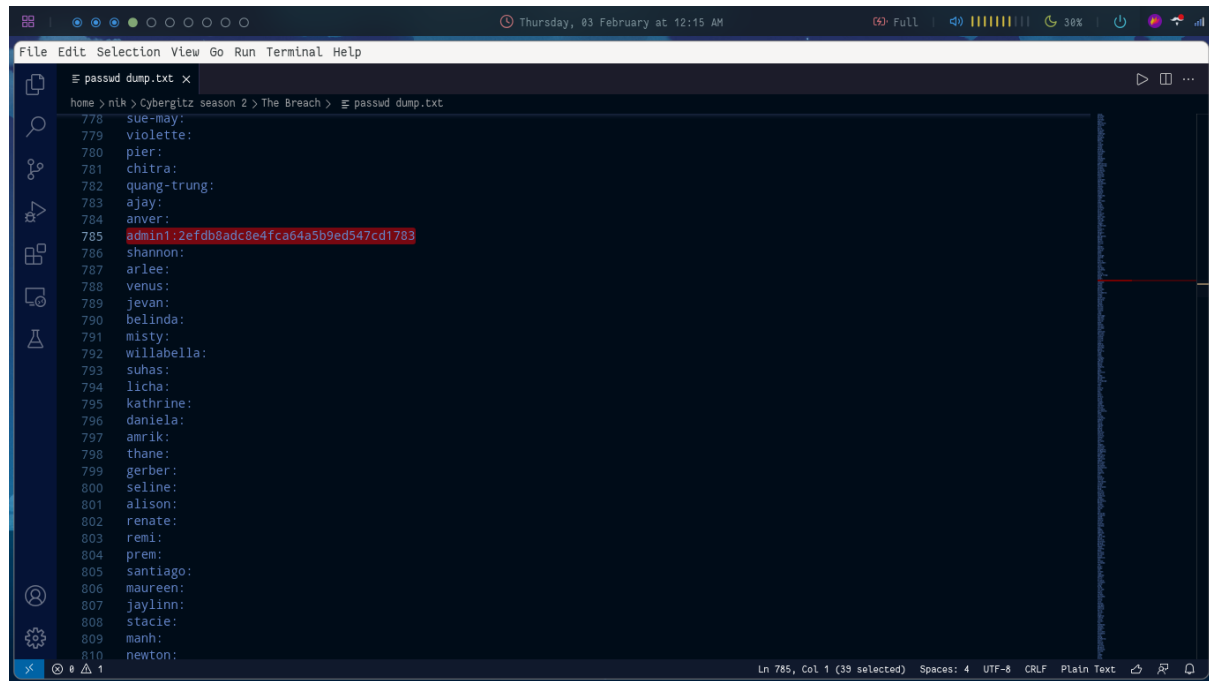
After a few deletions we get an almost empty list:



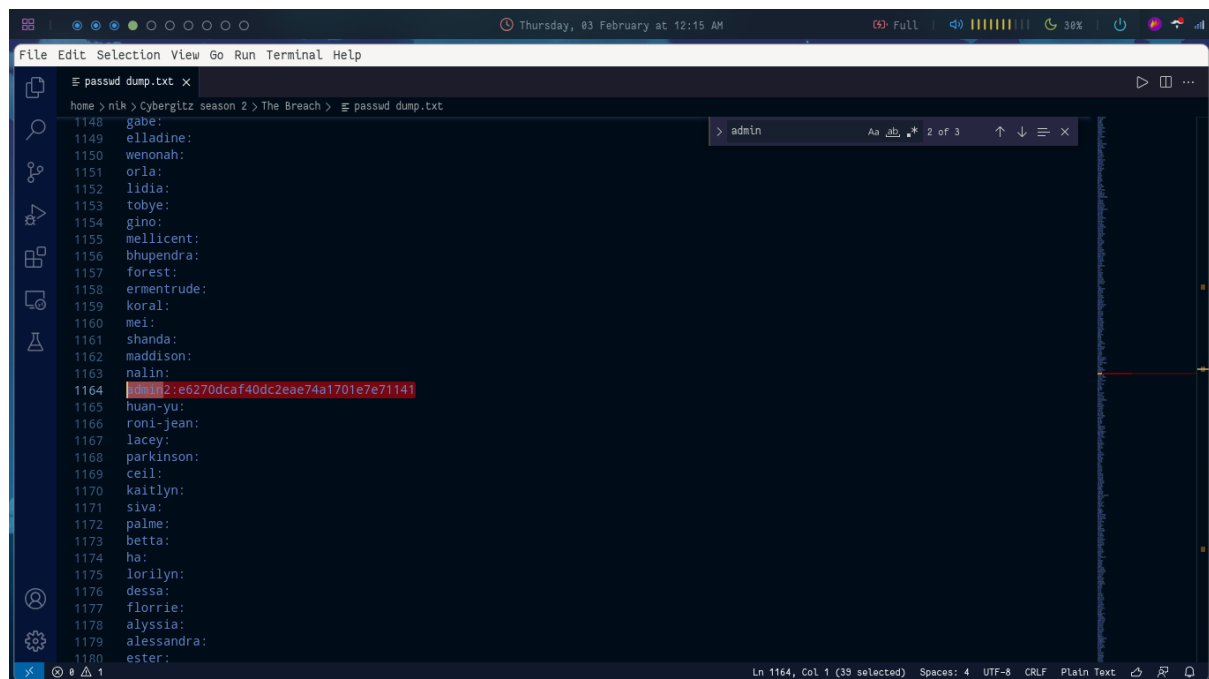
The screenshot shows the same VS Code editor with the 'passwd.dump.txt' file. The file content is now almost empty, with only the first 33 lines visible. The status bar at the bottom indicates 'Ln 783, Col 6'. The file content is as follows:

```
1 kudu:
2 kitty:
3 itty:
4 binu:
5 mellie:
6 melantha:
7 lex:
8 rosella:
9 katherina:
10 seymour:
11 nehemiah:
12 garney:
13 daisy:
14 nderjit:
15 chelsey:
16 emran:
17 roz:
18 kimmy:
19 victor:
20 blondy:
21 maxwell:
22 sharad:
23 minnie:
24 jayesh:
25 new:
26 rita:
27 michie:
28 addison:
29 mehetabel:
30 goldi:
31 phyl:
32 mirilla:
33 gerladina:
```

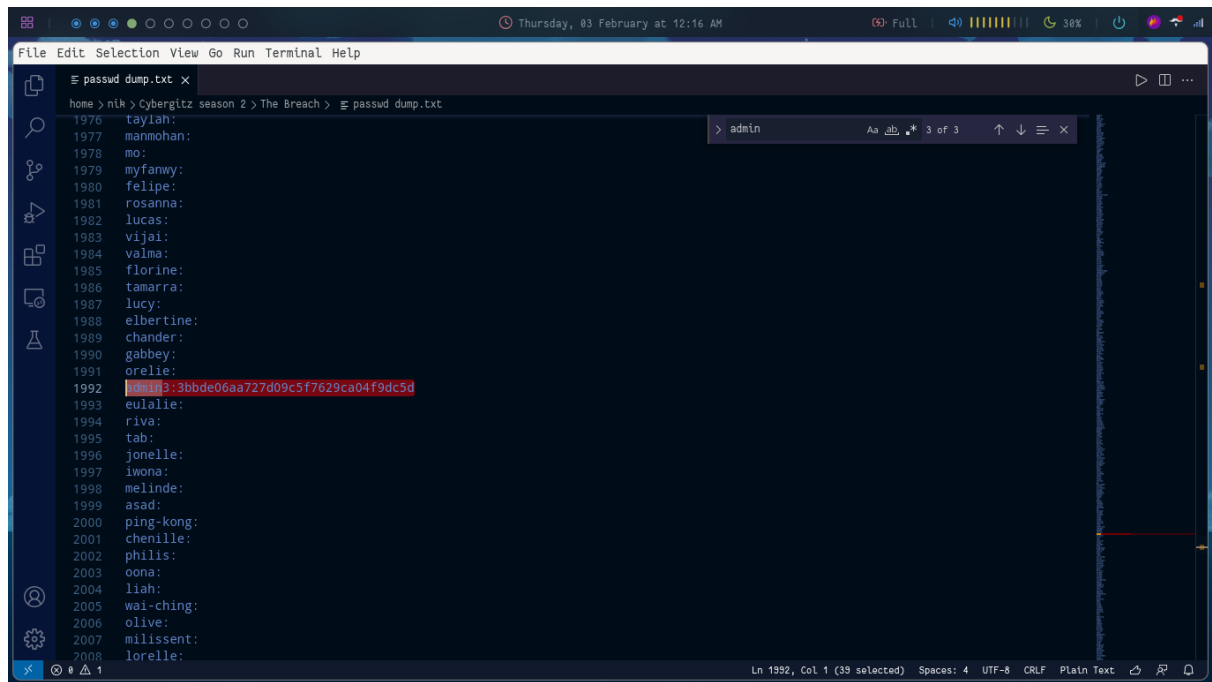
After checking for the remaining remaining members we get a user with admin1.
Since admin means the same as root check for all users starting with admin:



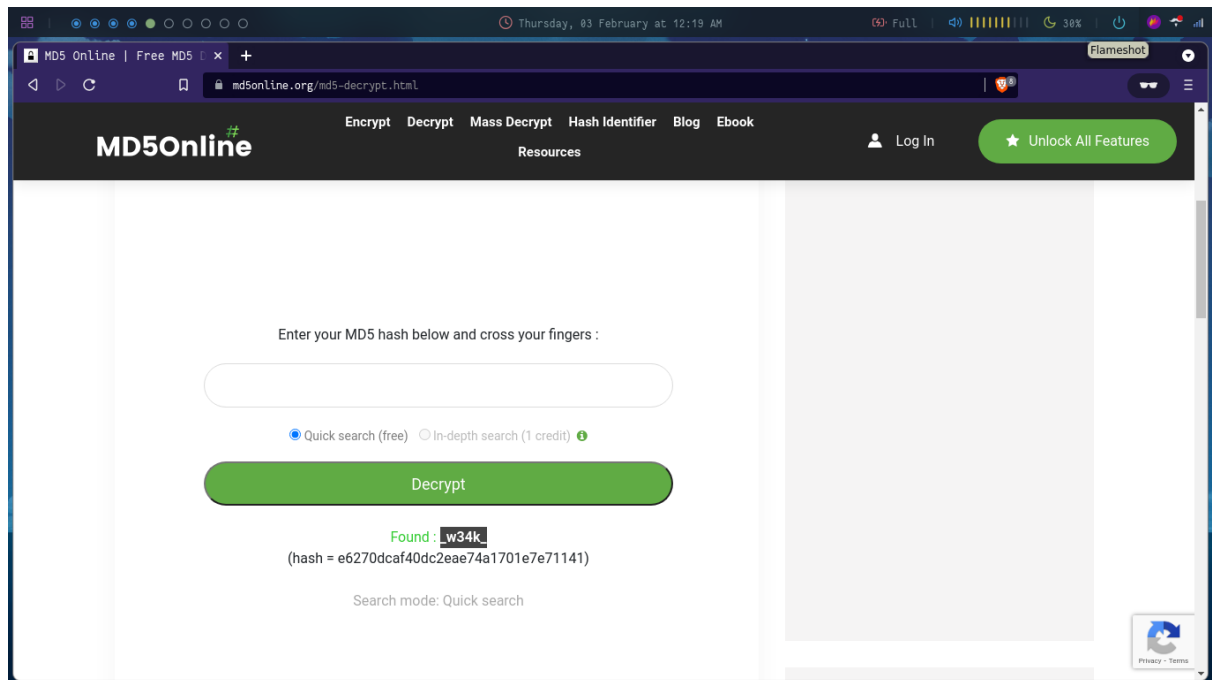
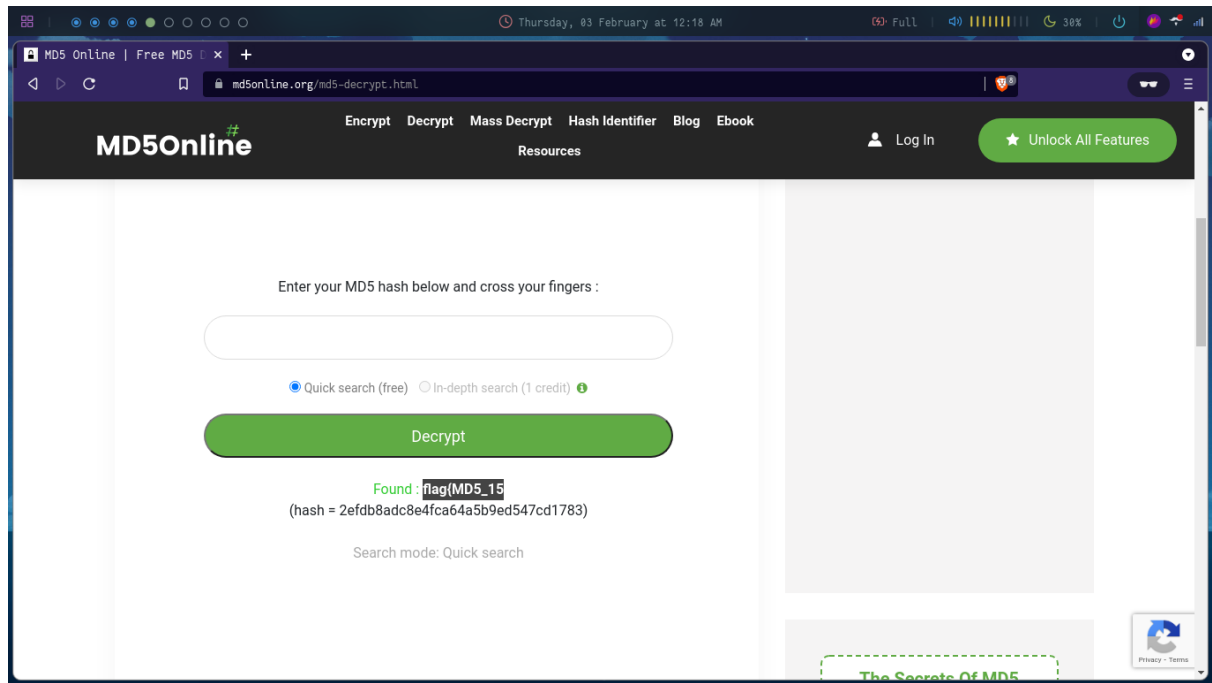
```
File Edit Selection View Go Run Terminal Help
passwd dump.txt x
home > nik > Cybergitz season 2 > The Breach > passwd dump.txt
778 sue-may:
779 violette:
780 pier:
781 chitra:
782 quang-trung:
783 ajay:
784 anver:
785 admin1:2efdb8adc8e4fca64a5b9ed547cd1783
786 shannon:
787 arlee:
788 venus:
789 jevan:
790 belinda:
791 misty:
792 willabella:
793 suhas:
794 licha:
795 kathrine:
796 daniela:
797 amrik:
798 thane:
799 gerber:
800 seline:
801 alison:
802 reneate:
803 remi:
804 prem:
805 santiago:
806 maureen:
807 jaylinn:
808 stacie:
809 manh:
810 newton:
```

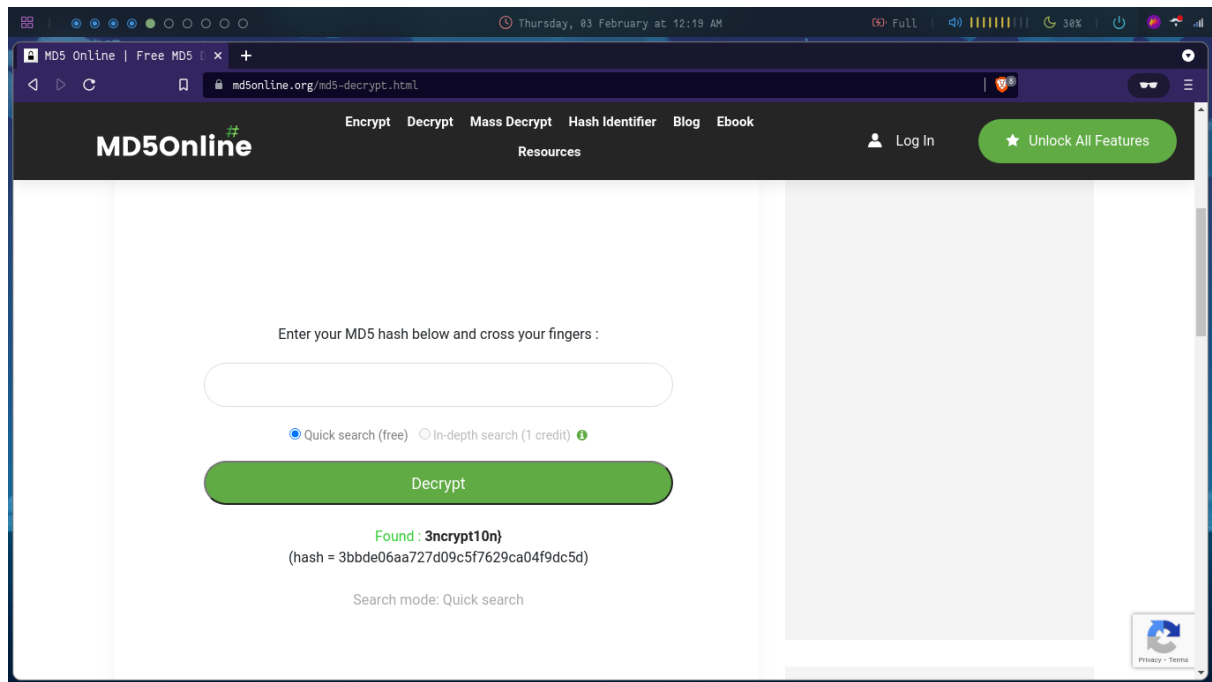


```
File Edit Selection View Go Run Terminal Help
passwd dump.txt x
home > nik > Cybergitz season 2 > The Breach > passwd dump.txt
1148 gabe:
1149 elladine:
1150 wenonah:
1151 orla:
1152 lidia:
1153 tobye:
1154 gino:
1155 mellicent:
1156 bhupendra:
1157 forest:
1158 ermentrude:
1159 koral:
1160 mei:
1161 shanda:
1162 maddison:
1163 nalin:
1164 admin2:e6270dc4f40dc2eae74a1701e7e71141
1165 huan-yu:
1166 roni-jean:
1167 lacey:
1168 parkinson:
1169 cell:
1170 kaitlyn:
1171 siva:
1172 palme:
1173 betta:
1174 ha:
1175 lorilyn:
1176 dessa:
1177 florrie:
1178 alyssia:
1179 alessandra:
1180 ester:
```



After decoding the MD5 hash of the three admins we get 3 parts of the flag:





Combining the three of them we get the whole flag:

