

```

1 """
2 FTPChat - Encrypted FTP-based Messaging Protocol
3 Version 1.4 - November 2025
4 Type: Custom-styled MIT LICENSE
5 Author: Ahmed Omar Saad
6 Contact: ahmedomardev@outlook.com
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29 """
30
31 from datetime import datetime
32 from ftplib import FTP, FTP_TLS
33 from threading import Thread
34 from webbrowser import open as open_link
35
36 from ttkbootstrap import (
37     Window,
38     Button,
39     Label,
40     Entry,
41     Menu,
42     NORMAL,
43     DISABLED,
44     StringVar,
45     ScrolledText,
46 )
47 from tkinter import messagebox
48 from zlib import compress, decompress
49 from base64 import b64encode, b64decode
50
51
52 def help_func():
53     open_link("ahmed-omar-software-projects.mydurable.com")
54
55
56 # !The start of the characters list and key for mac encryption layers
57
58

```

```
59  CHARACTERS = (
60    "a",
61    "b",
62    "c",
63    "d",
64    "e",
65    "f",
66    "g",
67    "h",
68    "i",
69    "j",
70    "k",
71    "l",
72    "m",
73    "n",
74    "o",
75    "p",
76    "q",
77    "r",
78    "s",
79    "t",
80    "u",
81    "v",
82    "w",
83    "x",
84    "y",
85    "z",
86    "A",
87    "B",
88    "C",
89    "D",
90    "E",
91    "F",
92    "G",
93    "H",
94    "I",
95    "J",
96    "K",
97    "L",
98    "M",
99    "N",
100   "O",
101   "P",
102   "Q",
103   "R",
104   "S",
105   "T",
106   "U",
107   "V",
108   "W",
109   "X",
110   "Y",
111   "Z",
112   "!",
113   "'",
114   "#",
115   "$",
116   "%",
117   "&",
118   "''",
119   "(",
120   ")",
121   "*",
122   "+",
123   ",",
124   "-",
125   ".,"
```

```
126      "/",
127      ":" ,
128      ";" ,
129      "<" ,
130      "=" ,
131      ">" ,
132      "??" ,
133      "@?" ,
134      "[" ,
135      "\\" ,
136      "]" ,
137      "^" ,
138      " " ,
139      "\n" ,
140      "{" ,
141      "|" ,
142      "}" ,
143      "~" ,
144      "0" ,
145      "1" ,
146      "2" ,
147      "3" ,
148      "4" ,
149      "5" ,
150      "6" ,
151      "7" ,
152      "8" ,
153      "9" ,
154  )
155 KEY_FOR_MAC_1 = (
156      "!" ,
157      ")" ,
158      "." ,
159      "3" ,
160      "(" ,
161      "J" ,
162      "b" ,
163      "C" ,
164      "A" ,
165      ";" ,
166      "n" ,
167      " " ,
168      "\$" ,
169      "0" ,
170      "," ,
171      "Z" ,
172      "B" ,
173      "c" ,
174      "|" ,
175      "g" ,
176      "7" ,
177      "^" ,
178      "''' ,
179      "I" ,
180      "v" ,
181      "P" ,
182      "Y" ,
183      "M" ,
184      "i" ,
185      "O" ,
186      "k" ,
187      "L" ,
188      "%" ,
189      "Y" ,
190      "D" ,
191      "#" ,
192      "@"
```

```
193     "<",
194     ">",
195     "r",
196     "K",
197     "2",
198     "-",
199     "t",
200     "8",
201     "H",
202     "=",
203     "+",
204     "\`",
205     "o",
206     "T",
207     "u",
208     "s",
209     "p",
210     "U",
211     "S",
212     "Q",
213     "~",
214     "!",
215     "G",
216     "*",
217     "&",
218     ">",
219     "X",
220     "a",
221     "N",
222     "4",
223     "d",
224     "m",
225     "l",
226     "V",
227     "w",
228     "z",
229     ":",
230     "q",
231     "?",
232     "5",
233     "x",
234     "{",
235     "/",
236     "F",
237     "j",
238     "]",
239     "6",
240     "W",
241     "f",
242     "R",
243     "1",
244     "}",
245     "e",
246     "[",
247     "\\",
248     "h",
249     "E",
250 }
251 KEY_FOR_MAC_2 = (
252     "$",
253     "i",
254     "o",
255     "c",
256     "&",
257     "L",
258     "/",
259     "~",
```

260 "○",
261 "@",
262 "(",
263 "[",
264 "Q",
265 "v",
266 "a",
267 "Y",
268 "7",
269 "3",
270 "*",
271 "X",
272 "x",
273 "8",
274 "{",
275 "K",
276 "E",
277 "4",
278 "M",
279 "q",
280 "|",
281 "J",
282 "0",
283 "<",
284 "Z",
285 "e",
286 "\"",
287 "~V",
288 "~H",
289 "m",
290 "G",
291 "A",
292 "d",
293 "y",
294 "T",
295 "·",
296 "S",
297 "j",
298 "I",
299 "#",
300 "]",
301 "p",
302 "\\",
303 "F",
304 "b",
305 "\"",
306 "W",
307 "k",
308 ";",
309 "5",
310 "N",
311 "s",
312 "2",
313 "l",
314 "1",
315 ":",
316 "r",
317 "-",
318 "~",
319 "h",
320 ">>",
321 "t",
322 "}",
323 "^",
324 "+",
325 "U",
326 "B",

```
327     " !",
328     " 6",
329     " )",
330     " ,",
331     " P",
332     " g",
333     " =",
334     " C",
335     " D",
336     " ?",
337     " R",
338     " 9",
339     " z",
340     " !",
341     " n",
342     " w",
343     " f",
344     " %",
345     " u",
346 )
347 KEY_FOR_MAC_3 = (
348     " h",
349     " R",
350     " -",
351     " I",
352     " 4",
353     " $",
354     " Z",
355     " c",
356     " /",
357     " Q",
358     " O",
359     " a",
360     " E",
361     " V",
362     " _",
363     " q",
364     " A",
365     " !",
366     " ,",
367     " X",
368     " N",
369     " H",
370     " `",
371     " .",
372     " K",
373     " e",
374     " *",
375     " v",
376     " \",
377     " T",
378     " k",
379     " M",
380     " Y",
381     " ^",
382     " 6",
383     " l",
384     " j",
385     " G",
386     " !",
387     " m",
388     " x",
389     " 7",
390     " 3",
391     " L",
392     " ;",
393     " C",
```

```
394     "1",
395     "p",
396     "2",
397     "S",
398     "]",
399     "r",
400     "%",
401     "g",
402     "@",
403     "0",
404     ")",
405     "}",
406     "B",
407     "W",
408     "|",
409     "t",
410     "=",
411     "?",
412     ">",
413     "{",
414     "b",
415     "d",
416     "'",
417     "u",
418     "f",
419     "+",
420     "P",
421     ":",
422     "z",
423     "i",
424     "F",
425     "~",
426     "[",
427     "(",
428     "&",
429     "o",
430     "n",
431     "D",
432     "#",
433     "5",
434     "8",
435     "J",
436     "w",
437     "s",
438     "U",
439     "9",
440     "<",
441     "y",
442   )
443 KEY_FOR_MAC_4 = (
444   " ",
445   "-",
446   "(",
447   "H",
448   "7",
449   "~",
450   "t",
451   "F",
452   "D",
453   "j",
454   "5",
455   "C",
456   "#",
457   "o",
458   "^",
459   "X",
460   "z",
461   "9",
```

461 " - ",
462 " k ",
463 " ' ",
464 " N ",
465 " E ",
466 " + ",
467 " q ",
468 " P ",
469 " / ",
470 " ; ",
471 " S ",
472 " W ",
473 " h ",
474 " s ",
475 " f ",
476 " . ",
477 " A ",
478 " 4 ",
479 " 1 ",
480 " \\",
481 " Q ",
482 " , ",
483 " m ",
484 " e ",
485 " \$ ",
486 " 6 ",
487 " p ",
488 " i ",
489 " Y ",
490 " | ",
491 " U ",
492 " a ",
493 " 3 ",
494 " L ",
495 " g ",
496 " c ",
497 "] ",
498 " 0 ",
499 ") ",
500 " v ",
501 " x ",
502 " 8 ",
503 " T ",
504 " l ",
505 " u ",
506 " b ",
507 " [",
508 " V ",
509 " : ",
510 " M ",
511 " r ",
512 " B ",
513 " G ",
514 " 1 ",
515 " K ",
516 " d ",
517 " > ",
518 " O ",
519 " ` ",
520 " * ",
521 " I ",
522 " ? ",
523 " 2 ",
524 " } ",
525 " n ",
526 " @ ",
527 " < ",

```
528     "&",
529     "Z",
530     "{",
531     "R",
532     "%",
533     "!",
534     "Y",
535     "w",
536     "=",
537     "J",
538 }
539 KEY_FOR_MAC_5 = (
540     "W",
541     "F",
542     "v",
543     "l",
544     "'",
545     "h",
546     "@",
547     "C",
548     ";",
549     "!",
550     "a",
551     "8",
552     "5",
553     "S",
554     "G",
555     "X",
556     "-",
557     "{",
558     "^",
559     "~",
560     "|",
561     "m",
562     "=",
563     "&",
564     "H",
565     "O",
566     "M",
567     "Q",
568     "0",
569     "d",
570     "I",
571     "g",
572     "6",
573     "J",
574     "9",
575     "E",
576     "z",
577     "K",
578     "L",
579     "?",
580     "/",
581     ">",
582     "o",
583     "]",
584     "n",
585     "Y",
586     "F",
587     "t",
588     "i",
589     "D",
590     "w",
591     "#",
592     "(",
593     "`",
594     "Y",
```

```
595     "%",
596     "x",
597     "[",
598     "p",
599     "*",
600     "b",
601     "j",
602     "<",
603     "}",
604     "!",
605     "\\",",
606     ",",
607     "B",
608     "R",
609     "q",
610     "U",
611     "x",
612     ")",
613     "$",
614     "-",
615     "1",
616     "+",
617     "T",
618     "N",
619     "s",
620     "7",
621     "c",
622     "k",
623     ";",
624     "4",
625     "3",
626     "e",
627     "z",
628     "V",
629     "P",
630     "2",
631     ".",
632     "u",
633     "A",
634 )
635 KEY_FOR_MAC_6 = (
636     "}",
637     "X",
638     "j",
639     "%",
640     "I",
641     "T",
642     "L",
643     "s",
644     "^",
645     "m",
646     "d",
647     "K",
648     ")",
649     "-",
650     "B",
651     "D",
652     "o",
653     "E",
654     "@",
655     "Z",
656     "`",
657     "2",
658     "f",
659     "a",
660     "6",
661     "q",
```

662 "e",
663 "n",
664 "*",
665 "R",
666 "[",
667 ";",
668 "V",
669 "!",
670 "z",
671 "Y",
672 "+",
673 "S",
674 "W",
675 "7",
676 "x",
677 "&",
678 "<",
679 "9",
680 "U",
681 "N",
682 "]",
683 "#",
684 "=",
685 "b",
686 "Q",
687 "Y",
688 "(",
689 "r",
690 "\\",
691 "M",
692 "A",
693 "v",
694 "H",
695 "{",
696 "w",
697 "p",
698 "3",
699 ",",
700 "k",
701 "!",
702 "t",
703 ":"
704 "u",
705 "J",
706 "8",
707 "F",
708 ">",
709 "i",
710 "G",
711 "P",
712 "0",
713 "/",
714 "~",
715 "|",
716 "h",
717 "o",
718 "g",
719 " ",
720 "c",
721 "l",
722 "C",
723 "4",
724 "?",
725 "1",
726 " .",
727 "!",
728 "§",

```
729     "5",
730 )
731 KEY_FOR_MAC_7 = (
732     "U",
733     "F",
734     ".",
735     "T",
736     "n",
737     "}",
738     ")"
739     "E",
740     "I",
741     "S",
742     "{",
743     "\\",
744     ">",
745     "B",
746     "a",
747     "j",
748     "Z",
749     "/",
750     "<",
751     "P",
752     "e",
753     "O",
754     "|",
755     ",",
756     "i",
757     "0",
758     "l",
759     "6",
760     "@",
761     ";",
762     "X",
763     "M",
764     "J",
765     "#",
766     "2",
767     "7",
768     "+",
769     "s",
770     "]",
771     "h",
772     "x",
773     "&",
774     "Y",
775     "-",
776     "`",
777     "G",
778     "3",
779     ":",
780     "(",
781     "L",
782     "=",
783     "f",
784     "*",
785     "H",
786     "Q",
787     "R",
788     "8",
789     "4",
790     "z",
791     "[",
792     "^",
793     "5",
794     "g",
795     "D",
```

```
796     "Y",
797     "!",
798     "W",
799     "$",
800     "q",
801     "9",
802     "K",
803     "k",
804     "''",
805     "d",
806     "p",
807     "A",
808     "u",
809     "w",
810     "C",
811     "''",
812     "\u0304",
813     "b",
814     "''",
815     "r",
816     "t",
817     "N",
818     "v",
819     "?",
820     "m",
821     "l",
822     "c",
823     "%",
824     "V",
825     "~",
826 }
827 KEY_FOR_MAC_8 = (
828     "u",
829     "5",
830     "''",
831     "Y",
832     "l",
833     "p",
834     "D",
835     "L",
836     "b",
837     "k",
838     "@",
839     "9",
840     "O",
841     "0",
842     "*",
843     "}",
844     "f",
845     "w",
846     "C",
847     "q",
848     "''",
849     "g",
850     "t",
851     "K",
852     "&",
853     ";",
854     "s",
855     "v",
856     "o",
857     "=",
858     "7",
859     "I",
860     "]",
861     ".",
862     "R",
```

```
863     "c",
864     "?",
865     "a",
866     "^",
867     "V",
868     "x",
869     "%",
870     "n",
871     "\\" ,
872     "z",
873     "B",
874     "i",
875     "Q",
876     "U",
877     "+",
878     "m",
879     "1",
880     ",",
881     "F",
882     "M",
883     "$",
884     "T",
885     "3",
886     "N",
887     ")",
888     "r",
889     "y",
890     ">",
891     "8",
892     "P",
893     "q",
894     "2",
895     "<",
896     "|",
897     "`",
898     "4",
899     "~",
900     "/",
901     "A",
902     ":",
903     "J",
904     "{",
905     "(",
906     "H",
907     "-",
908     "h",
909     "i",
910     "j",
911     "G",
912     "S",
913     "X",
914     "[",
915     "6",
916     "Z",
917     "E",
918     "W",
919     "#",
920     "e",
921     "!",
922 }
923 KEY_FOR_MAC_9 = (
924     ",",
925     "T",
926     "g",
927     "B",
928     "5",
929     "n",
```

930 "f",
931 "s",
932 "G",
933 "W",
934 "V",
935 "~",
936 "M",
937 "[",
938 "!",
939 "e",
940 "L",
941 "-",
942 " ",
943 "Q",
944 "9",
945 "^",
946 ")",
947 "P",
948 "0",
949 "j",
950 "2",
951 "v",
952 "? ",
953 "E",
954 "Y",
955 "Z",
956 "1",
957 " | ",
958 " . ",
959 "#",
960 "w",
961 "D",
962 "J",
963 "l",
964 "O",
965 "@",
966 "t",
967 "{",
968 "x",
969 "+",
970 "4",
971 "S",
972 ";",
973 "u",
974 "F",
975 "~",
976 "q",
977 "}",
978 "<",
979 "N",
980 "o",
981 "(",
982 "K",
983 "/",
984 "z",
985 "a",
986 "\\",
987 "p",
988 "3",
989 "''",
990 "i",
991 "8",
992 "7",
993 "%",
994 "6",
995 "U",
996 ">> ",

```
997      "C",
998      "X",
999      "$",
1000     "R",
1001     "&",
1002     "d",
1003     "c",
1004     "I",
1005     "Y",
1006     "H",
1007     "=",
1008     "''",
1009     "h",
1010     "r",
1011     "m",
1012     "*",
1013     "b",
1014     ":" ,
1015     "A",
1016     "]",
1017     "k",
1018 )
1019 KEY_FOR_MAC_10 = (
1020     "0",
1021     "R",
1022     "h",
1023     "C",
1024     "~",
1025     "o",
1026     "i",
1027     "g",
1028     ",",
1029     "k",
1030     "8",
1031     "H",
1032     "Q",
1033     "P",
1034     "9",
1035     "v",
1036     "$",
1037     "u",
1038     "5",
1039     "-",
1040     "a",
1041     "{",
1042     "'",
1043     "s",
1044     "A",
1045     ";",
1046     "[",
1047     "Y",
1048     "^",
1049     "r",
1050     "M",
1051     "b",
1052     "G",
1053     "''",
1054     "m",
1055     "e",
1056     "x",
1057     "I",
1058     "T",
1059     "n",
1060     ">",
1061     "<",
1062     "P",
1063     "J",
```

```
1064     "U",
1065     "2",
1066     "3",
1067     "4",
1068     "#",
1069     "W",
1070     ":" ,
1071     "w",
1072     "D",
1073     "|",
1074     "(",
1075     "z",
1076     "q",
1077     "K",
1078     "V",
1079     "B",
1080     "L",
1081     "j",
1082     "d",
1083     "&",
1084     "!",
1085     "1",
1086     "+",
1087     "\\", ,
1088     "X",
1089     "/",
1090     "?",
1091     "@",
1092     "*",
1093     "t",
1094     "c",
1095     "}",
1096     "Z",
1097     "%",
1098     ".",
1099     ")",
1100     "E",
1101     "`",
1102     "f",
1103     "N",
1104     "Y",
1105     "6",
1106     "7",
1107     "O",
1108     "=",
1109     "]",
1110     "F",
1111     "l",
1112     "S",
1113     "!!",
1114 )
1115 KEY_FOR_MAC_11 = (
1116     "S",
1117     "}",
1118     "!",
1119     "N",
1120     "\\", ,
1121     "C",
1122     "M",
1123     "[",
1124     "z",
1125     "?",
1126     "%",
1127     "7",
1128     "q",
1129     "Y",
1130     ".,"
```

1131 "\$",
1132 "l",
1133 "D",
1134 "G",
1135 "f",
1136 "+",
1137 "/",
1138 "6",
1139 "#",
1140 "5",
1141 "w",
1142 "P",
1143 "O",
1144 "U",
1145 "*",
1146 "X",
1147 "d",
1148 "=",
1149 "3",
1150 ":",
1151 "i",
1152 "y",
1153 "h",
1154 "v",
1155 "(",
1156 "R",
1157 "W",
1158 "x",
1159 "!",
1160 "1",
1161 "c",
1162 "A",
1163 "<",
1164 "J",
1165 " ",
1166 "~L",
1167 " | ",
1168 "T",
1169 "^",
1170 ">>",
1171 "H",
1172 "2",
1173 "~",
1174 "I",
1175 ";",
1176 "0",
1177 "k",
1178 "~",
1179 "u",
1180 "o",
1181 "&",
1182 "Z",
1183 "j",
1184 "p",
1185 ")",
1186 ",",
1187 "r",
1188 "9",
1189 "!",
1190 "Q",
1191 "4",
1192 "]",
1193 "m",
1194 "t",
1195 "B",
1196 "a",
1197 "F",

```
1198     "V",
1199     "b",
1200     "8",
1201     "E",
1202     "n",
1203     "g",
1204     "@",
1205     "e",
1206     "s",
1207     "~",
1208     "{",
1209     "K",
1210 )
1211
1212
1213 # !The end of the characters list and key for mac encryption layers
1214
1215
1216 # !---The start for the all encryption and decryption functions---
1217
1218
1219 def reverser(text):
1220     """This function reverses the text"""
1221     return text[::-1]
1222
1223
1224 # ---The end of reverser function.---
1225
1226
1227 def mac_encode(text, key):
1228     """Generic Mono-Alphabetic cipher encoder with given key."""
1229     result = []
1230     for char in text:
1231         if char in CHARACTERS:
1232             index = CHARACTERS.index(char)
1233             result.append(key[index])
1234         else:
1235             result.append(char)
1236     return "".join(result)
1237
1238
1239 def mac_decode(text, key):
1240     """Generic Mono-Alphabetic cipher decoder with given key."""
1241     result = []
1242     for char in text:
1243         if char in key:
1244             index = key.index(char)
1245             result.append(CHARACTERS[index])
1246         else:
1247             result.append(char)
1248     return "".join(result)
1249
1250
1251 def all_mac_encryption(text):
1252     """12 Layers combined MAC encryption"""
1253     text = mac_encode(text, KEY_FOR_MAC_5)
1254     text = reverser(text)
1255     text = mac_encode(text, KEY_FOR_MAC_4)
1256     text = mac_encode(text, KEY_FOR_MAC_2)
1257     text = mac_encode(text, KEY_FOR_MAC_1)
1258     text = mac_encode(text, KEY_FOR_MAC_3)
1259     text = mac_encode(text, KEY_FOR_MAC_8)
1260     text = mac_encode(text, KEY_FOR_MAC_7)
1261     text = mac_encode(text, KEY_FOR_MAC_9)
1262     text = mac_encode(text, KEY_FOR_MAC_6)
1263     text = mac_encode(text, KEY_FOR_MAC_11)
1264
1265     return mac_encode(text, KEY_FOR_MAC_10)
```

```

1265
1266
1267 def all_mac_decryption(text):
1268     """12 Layers combined MAC decryption"""
1269     text = mac_decode(text, KEY_FOR_MAC_10)
1270     text = mac_decode(text, KEY_FOR_MAC_11)
1271     text = mac_decode(text, KEY_FOR_MAC_6)
1272     text = mac_decode(text, KEY_FOR_MAC_9)
1273     text = mac_decode(text, KEY_FOR_MAC_7)
1274     text = mac_decode(text, KEY_FOR_MAC_8)
1275     text = mac_decode(text, KEY_FOR_MAC_3)
1276     text = mac_decode(text, KEY_FOR_MAC_1)
1277     text = mac_decode(text, KEY_FOR_MAC_2)
1278     text = mac_decode(text, KEY_FOR_MAC_4)
1279     text = reverser(text)
1280     return mac_decode(text, KEY_FOR_MAC_5)
1281
1282
1283 def encrypt(text: str) -> str:
1284     """Doubled 12 Layer MAC encryption + compression"""
1285     encrypted = all_mac_encryption(all_mac_encryption(text))
1286     compressed = compress(encrypted.encode("utf-8"))
1287     return b64encode(compressed).decode("utf-8")
1288
1289
1290 def decrypt(text: str) -> str:
1291     """Doubled 12 Layer MAC decryption + decompression"""
1292     compressed = b64decode(text.encode("utf-8"))
1293     encrypted = decompress(compressed).decode("utf-8")
1294     return all_mac_decryption(all_mac_decryption(encrypted))
1295
1296
1297 # !---The sending and reading messages functions---
1298
1299
1300 def send_message_non(username, message):
1301     msg_e = encrypt(
1302         f"{{datetime.now().strftime('%Y-%m-%d %H:%M')}}:{username}:{message}"
1303     )
1304     msg.delete("1.0", "end")
1305     ftp_host = FTP_HOST.get()
1306     ftp_user = FTP_USER.get()
1307     ftp_pass = FTP_PASS.get()
1308     chat_name = f"{chat_file_name.get()}.txt"
1309     local_temp = "chat_temp.txt"
1310
1311
1312     try:
1313         try:
1314             ftp = FTP_TLS(ftp_host)
1315             ftp.login(ftp_user, ftp_pass)
1316         except Exception:
1317             ftp = FTP(ftp_host)
1318             ftp.login(ftp_user, ftp_pass)
1319
1320         try:
1321             with open(local_temp, "wb") as f:
1322                 ftp.retrbinary(f"RETR " + chat_name, f.write)
1323         except Exception:
1324             pass
1325
1326         with open(local_temp, "w", encoding="utf-8") as f:
1327             f.write(f"{msg_e}\n")
1328
1329         with open(local_temp, "rb") as f:
1330             ftp.storbinary(f"APPE " + chat_name, f)
1331
1332     ftp.quit()

```

```

1332     read_messages()
1333
1334 except Exception as error:
1335     messagebox.showerror("Error sending message", str(error))
1336
1337
1338 def send_messages(username, message):
1339     Thread(target=send_message_non, args=(username, message), daemon=True).start()
1340
1341
1342
1343 def read_messages_non():
1344     ftp_host = FTP_HOST.get()
1345     ftp_user = FTP_USER.get()
1346     ftp_pass = FTP_PASS.get()
1347     chat_name = f'{chat_file_name.get()}.txt'
1348     local_temp = "chat_temp.txt"
1349
1350     try:
1351         try:
1352             ftp = FTP_TLS(ftp_host)
1353             ftp.login(ftp_user, ftp_pass)
1354         except Exception as e:
1355             ftp = FTP(ftp_host)
1356             ftp.login(ftp_user, ftp_pass)
1357
1358         with open(local_temp, "wb") as file:
1359             ftp.retrbinary(f"RETR {chat_name}", file.write)
1360         ftp.quit()
1361
1362         with open(local_temp, "r", encoding="utf-8") as file:
1363             lines = file.readlines()
1364
1365             out_lines = []
1366             for line in lines:
1367                 try:
1368                     out_lines.append(decrypt(line.strip()))
1369                 except Exception:
1370                     out_lines.append(line.strip())
1371
1372             message_text = "\n".join(
1373                 out_lines) if out_lines else "No messages yet."
1374
1375             chat_notes.config(state=NORMAL)
1376             chat_notes.delete("1.0", "end")
1377             chat_notes.insert("end", message_text)
1378             chat_notes.see("end")
1379             chat_notes.config(state=DISABLED)
1380
1381     except Exception as error:
1382         messagebox.showerror("Error reading messages", str(error))
1383
1384
1385 def read_messages():
1386     Thread(target=read_messages_non, daemon=True).start()
1387
1388
1389 def auto_refresh_func():
1390     if FTP_HOST.get() and FTP_USER.get() and FTP_PASS.get() and chat_file_name.get():
1391         read_messages()
1392         main.after(5000, auto_refresh_func)
1393     else:
1394         messagebox.showwarning("Warning", "Please, fill in all details")
1395
1396
1397 def start_loop():
1398     send_but.config(state=NORMAL)

```

```

1399 auto_refresh_func()
1400 done_but.config(state=DISABLED)
1401 done_but.config(text="Loop Started")
1402
1403
1404 main = Window(themename="darkly")
1405 main.title("TLock")
1406 main.geometry("1920x1080")
1407 main.state("zoomed")
1408 menubar = Menu(main)
1409 main.config(menu=menubar)
1410
1411 # Menubar
1412 accessibility_menu = Menu(menubar, tearoff=False)
1413 accessibility_menu.add_command(label="Help", command=help_func)
1414 accessibility_menu.add_command(label="Exit", command=lambda: main.destroy())
1415 menubar.add_cascade(label="Accessibility", menu=accessibility_menu)
1416
1417 # Widgets
1418
1419 FTP_HOST = StringVar()
1420 Label(main, text="Host:").place(x=5, y=5)
1421 Entry(main, textvariable=FTP_HOST, width=225).place(x=100, y=5)
1422
1423 FTP_USER = StringVar()
1424 Label(main, text="FTP User:").place(x=5, y=40)
1425 Entry(main, textvariable=FTP_USER, width=225).place(x=100, y=40)
1426
1427 FTP_PASS = StringVar()
1428 Label(main, text="Password:").place(x=5, y=75)
1429 Entry(main, textvariable=FTP_PASS, width=225, show="*").place(x=100, y=75)
1430
1431 username_var = StringVar()
1432 Label(main, text="Username:").place(x=5, y=110)
1433 Entry(main, textvariable=username_var, width=225).place(x=100, y=110)
1434
1435 chat_file_name = StringVar()
1436 Label(main, text="Chat File:").place(x=5, y=146)
1437 Entry(main, textvariable=chat_file_name, width=201).place(x=100, y=146)
1438
1439 done_but = Button(
1440     main,
1441     text="Done",
1442     command=lambda: start_loop(),
1443     width=20,
1444     bootstyle="primary",
1445 )
1446 done_but.place(x=1730, y=146)
1447
1448 Label(main, text="Chat:").place(x=5, y=180)
1449 chat_notes = ScrolledText(main, width=233, height=16)
1450 chat_notes.place(x=5, y=210)
1451 chat_notes.see("end")
1452 chat_notes.config(state=DISABLED)
1453
1454 Label(main, text="Message:").place(x=5, y=547)
1455 msg = ScrolledText(main, width=233, height=16)
1456 msg.place(x=5, y=575)
1457
1458 send_but = Button(
1459     main,
1460     text="Send",
1461     command=lambda: send_messages(username_var.get(), msg.get("1.0", "end")),
1462     width=235,
1463     bootstyle="primary",
1464     state=DISABLED
1465 ).place(x=5, y=920)

```

```
1466
1467 main.mainloop()
1468
```