


```
63 [4,    100] loss: 0.002
64 [4,    200] loss: 0.002
65 EPOCH          : 4
66 Training loss   : 0.15479732691997092
67 Training accuracy : 96.78373159546223%
68 Validation loss   : 0.20497278599758642
69 Validation accuracy: 94.88293507120444%
70 -----
71 [5,    100] loss: 0.002
72 [5,    200] loss: 0.002
73 EPOCH          : 5
74 Training loss   : 0.14693413661523572
75 Training accuracy : 97.12768525223268%
76 Validation loss   : 0.20719271157347807
77 Validation accuracy: 94.88293507120444%
78 -----
79 [6,    100] loss: 0.001
80 [6,    200] loss: 0.002
81 EPOCH          : 6
82 Training loss   : 0.13596719299109697
83 Training accuracy : 97.35095341539947%
84 Validation loss   : 0.1701822475393757
85 Validation accuracy: 96.45184648805214%
86 -----
87 [7,    100] loss: 0.002
88 [7,    200] loss: 0.002
89 EPOCH          : 7
90 Training loss   : 0.14170587923168243
91 Training accuracy : 97.302679217958%
92 Validation loss   : 0.17504928896400107
93 Validation accuracy: 95.87255611875453%
94 -----
95 [8,    100] loss: 0.001
96 [8,    200] loss: 0.002
97 EPOCH          : 8
98 Training loss   : 0.1297830603935855
99 Training accuracy : 97.48974173304369%
100 Validation loss  : 0.2006250480911509
101 Validation accuracy: 95.02775766352885%
102 -----
103 [9,    100] loss: 0.001
104 [9,    200] loss: 0.001
105 EPOCH          : 9
106 Training loss   : 0.11743483532174268
107 Training accuracy : 98.05092927830074%
108 Validation loss  : 0.19021899280644775
109 Validation accuracy: 95.67945932898866%
110 -----
111 [10,   100] loss: 0.001
112 [10,   200] loss: 0.001
113 EPOCH          : 10
114 Training loss   : 0.11943321859033793
115 Training accuracy : 98.00868935553946%
116 Validation loss  : 0.18475638476368772
117 Validation accuracy: 95.65532223026793%
118 -----
119 [11,   100] loss: 0.001
120 [11,   200] loss: 0.001
121 EPOCH          : 11
122 Training loss   : 0.11326395708554153
123 Training accuracy : 98.11127202510258%
124 Validation loss  : 0.1863369609087871
125 Validation accuracy: 96.30702389572774%
126 -----
127 [12,   100] loss: 0.001
128 [12,   200] loss: 0.001
129 EPOCH          : 12
130 Training loss   : 0.10332329469460265
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131 Training accuracy : 98.52763697803525%
132 Validation loss   : 0.1656406703215131
133 Validation accuracy: 96.7173545739802%
134 -----
135 [13, 100] loss: 0.001
136 [13, 200] loss: 0.001
137 EPOCH             : 13
138 Training loss     : 0.10786578422463979
139 Training accuracy : 98.26212889210717%
140 Validation loss   : 0.1536544677343974
141 Validation accuracy: 96.83804006758388%
142 -----
143 [14, 100] loss: 0.001
144 [14, 200] loss: 0.001
145 EPOCH             : 14
146 Training loss     : 0.0948656946600505
147 Training accuracy : 98.58797972483707%
148 Validation loss   : 0.14504796360070193
149 Validation accuracy: 96.95872556118755%
150 -----
151 [15, 100] loss: 0.001
152 [15, 200] loss: 0.001
153 EPOCH             : 15
154 Training loss     : 0.09190477047051723
155 Training accuracy : 98.73883659184166%
156 Validation loss   : 0.15002143414677152
157 Validation accuracy: 97.12768525223268%
158 -----
159 [16, 100] loss: 0.001
160 [16, 200] loss: 0.001
161 EPOCH             : 16
162 Training loss     : 0.09452821974330786
163 Training accuracy : 98.61815109823799%
164 Validation loss   : 0.1672571391953439
165 Validation accuracy: 95.99324161235819%
166 -----
167 [17, 100] loss: 0.001
168 [17, 200] loss: 0.001
169 EPOCH             : 17
170 Training loss     : 0.09357408019272337
171 Training accuracy : 98.68452811972001%
172 Validation loss   : 0.15248813273507905
173 Validation accuracy: 96.69321747525947%
174 -----
175 [18, 100] loss: 0.001
176 [18, 200] loss: 0.001
177 EPOCH             : 18
178 Training loss     : 0.08701094883581074
179 Training accuracy : 98.85952208544533%
180 Validation loss   : 0.13059767328999394
181 Validation accuracy: 97.29664494327781%
182 -----
183 [19, 100] loss: 0.001
184 [19, 200] loss: 0.001
185 EPOCH             : 19
186 Training loss     : 0.08126121623459111
187 Training accuracy : 99.05865314989138%
188 Validation loss   : 0.13229563010075573
189 Validation accuracy: 97.27250784455708%
190 -----
191 [20, 100] loss: 0.001
192 [20, 200] loss: 0.001
193 EPOCH             : 20
194 Training loss     : 0.08587745789482545
195 Training accuracy : 98.90176200820662%
196 Validation loss   : 0.16422299915196784
197 Validation accuracy: 96.54839488293507%
198 -----
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199 [21, 100] loss: 0.001
200 [21, 200] loss: 0.001
201 EPOCH : 21
202 Training loss : 0.09312938023902585
203 Training accuracy : 98.68452811972001%
204 Validation loss : 0.16744555881453285
205 Validation accuracy: 96.18633840212406%
206 -----
207 [22, 100] loss: 0.001
208 [22, 200] loss: 0.001
209 EPOCH : 22
210 Training loss : 0.08148170408061987
211 Training accuracy : 99.03451605117066%
212 Validation loss : 0.17419286997687147
213 Validation accuracy: 96.23461259956554%
214 -----
215 [23, 100] loss: 0.001
216 [23, 200] loss: 0.001
217 EPOCH : 23
218 Training loss : 0.0811766042258755
219 Training accuracy : 98.99831040308955%
220 Validation loss : 0.13589524100605427
221 Validation accuracy: 97.32078204199856%
222 -----
223 [24, 100] loss: 0.001
224 [24, 200] loss: 0.001
225 EPOCH : 24
226 Training loss : 0.0769266580833262
227 Training accuracy : 99.07072169925175%
228 Validation loss : 0.14379427170022627
229 Validation accuracy: 97.24837074583635%
230 -----
231 [25, 100] loss: 0.001
232 [25, 200] loss: 0.000
233 EPOCH : 25
234 Training loss : 0.08508684749249931
235 Training accuracy : 98.93796765628771%
236 Validation loss : 0.1521336235287625
237 Validation accuracy: 96.8621771663046%
238 -----
239 [26, 100] loss: 0.001
240 [26, 200] loss: 0.001
241 EPOCH : 26
242 Training loss : 0.079759643564413
243 Training accuracy : 99.02244750181028%
244 Validation loss : 0.13831754562908286
245 Validation accuracy: 97.22423364711561%
246 -----
247 [27, 100] loss: 0.001
248 [27, 200] loss: 0.001
249 EPOCH : 27
250 Training loss : 0.0812387637490096
251 Training accuracy : 98.97417330436882%
252 Validation loss : 0.15877441332129041
253 Validation accuracy: 96.7897658701424%
254 -----
255 [28, 100] loss: 0.000
256 [28, 200] loss: 0.001
257 EPOCH : 28
258 Training loss : 0.07583118778422579
259 Training accuracy : 99.13709872073377%
260 Validation loss : 0.12696307251598996
261 Validation accuracy: 97.63456432536809%
262 -----
263 [29, 100] loss: 0.000
264 [29, 200] loss: 0.001
265 EPOCH : 29
266 Training loss : 0.08335872425021339
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267 Training accuracy : 99.0164132271301%
268 Validation loss   : 0.16420736135620442
269 Validation accuracy: 96.4277093893314%
270 -----
271 [30, 100] loss: 0.001
272 [30, 200] loss: 0.002
273 EPOCH             : 30
274 Training loss     : 0.07910195992903925
275 Training accuracy : 99.05865314989138%
276 Validation loss   : 0.20092172919624876
277 Validation accuracy: 95.24499155201545%
278 -----
279 [31, 100] loss: 0.001
280 [31, 200] loss: 0.000
281 EPOCH             : 31
282 Training loss     : 0.07427165600633724
283 Training accuracy : 99.13709872073377%
284 Validation loss   : 0.1132737730483401
285 Validation accuracy: 97.82766111513396%
286 -----
287 [32, 100] loss: 0.000
288 [32, 200] loss: 0.001
289 EPOCH             : 32
290 Training loss     : 0.06718026121371097
291 Training accuracy : 99.42070963070239%
292 Validation loss   : 0.13835874295539682
293 Validation accuracy: 97.03113685734975%
294 -----
295 [33, 100] loss: 0.001
296 [33, 200] loss: 0.001
297 EPOCH             : 33
298 Training loss     : 0.07433598258200114
299 Training accuracy : 99.25778421433743%
300 Validation loss   : 0.14128968061354608
301 Validation accuracy: 97.07941105479121%
302 -----
303 [34, 100] loss: 0.001
304 [34, 200] loss: 0.001
305 EPOCH             : 34
306 Training loss     : 0.0783568678013288
307 Training accuracy : 99.02244750181028%
308 Validation loss   : 0.17350105856053644
309 Validation accuracy: 96.81390296886315%
310 -----
311 [35, 100] loss: 0.001
312 [35, 200] loss: 0.001
313 EPOCH             : 35
314 Training loss     : 0.07764556657252264
315 Training accuracy : 99.04055032585083%
316 Validation loss   : 0.11885844662717193
317 Validation accuracy: 97.68283852280956%
318 -----
319 [36, 100] loss: 0.000
320 [36, 200] loss: 0.001
321 EPOCH             : 36
322 Training loss     : 0.06607325063964868
323 Training accuracy : 99.42674390538258%
324 Validation loss   : 0.12862105655002617
325 Validation accuracy: 97.80352401641322%
326 -----
327 [37, 100] loss: 0.000
328 [37, 200] loss: 0.001
329 EPOCH             : 37
330 Training loss     : 0.07254423318696489
331 Training accuracy : 99.30002413709872%
332 Validation loss   : 0.12818539715204555
333 Validation accuracy: 97.73111272025102%
334 -----
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335 [38, 100] loss: 0.001
336 [38, 200] loss: 0.002
337 EPOCH : 38
338 Training loss : 0.07775482841801765
339 Training accuracy : 99.09485879797248%
340 Validation loss : 0.13810207709695244
341 Validation accuracy: 97.22423364711561%
342 -----
343 [39, 100] loss: 0.001
344 [39, 200] loss: 0.001
345 EPOCH : 39
346 Training loss : 0.08151874215223638
347 Training accuracy : 98.93796765628771%
348 Validation loss : 0.15753821160751294
349 Validation accuracy: 96.8621771663046%
350 -----
351 [40, 100] loss: 0.001
352 [40, 200] loss: 0.001
353 EPOCH : 40
354 Training loss : 0.06358907843107997
355 Training accuracy : 99.4870866521844%
356 Validation loss : 0.1606287142518578
357 Validation accuracy: 96.88631426502535%
358 -----
359 [41, 100] loss: 0.001
360 [41, 200] loss: 0.001
361 EPOCH : 41
362 Training loss : 0.06690208614232199
363 Training accuracy : 99.34226405986%
364 Validation loss : 0.13602084012069537
365 Validation accuracy: 97.39319333816076%
366 -----
367 [42, 100] loss: 0.001
368 [42, 200] loss: 0.001
369 EPOCH : 42
370 Training loss : 0.07635163291911126
371 Training accuracy : 99.14916727009414%
372 Validation loss : 0.14374563511575214
373 Validation accuracy: 96.83804006758388%
374 -----
375 [43, 100] loss: 0.000
376 [43, 200] loss: 0.000
377 EPOCH : 43
378 Training loss : 0.07733259618555668
379 Training accuracy : 99.20347574221579%
380 Validation loss : 0.13632539663515084
381 Validation accuracy: 97.51387883176442%
382 -----
383 [44, 100] loss: 0.001
384 [44, 200] loss: 0.001
385 EPOCH : 44
386 Training loss : 0.07845014614268199
387 Training accuracy : 99.0888245232923%
388 Validation loss : 0.10348152216580533
389 Validation accuracy: 98.26212889210717%
390 -----
391 [45, 100] loss: 0.000
392 [45, 200] loss: 0.001
393 EPOCH : 45
394 Training loss : 0.05753876225343511
395 Training accuracy : 99.62587496982863%
396 Validation loss : 0.13932696638721906
397 Validation accuracy: 97.41733043688149%
398 -----
399 [46, 100] loss: 0.001
400 [46, 200] loss: 0.001
401 EPOCH : 46
402 Training loss : 0.0687082103419183
```

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403 Training accuracy : 99.36640115858074%
404 Validation loss   : 0.1526906625562148
405 Validation accuracy: 96.76562877142167%
406 -----
407 [47, 100] loss: 0.000
408 [47, 200] loss: 0.000
409 EPOCH             : 47
410 Training loss     : 0.0697522773392788
411 Training accuracy : 99.37846970794111%
412 Validation loss   : 0.14322471894879518
413 Validation accuracy: 97.56215302920589%
414 -----
415 [48, 100] loss: 0.001
416 [48, 200] loss: 0.001
417 EPOCH             : 48
418 Training loss     : 0.09028470997444363
419 Training accuracy : 98.72073376780111%
420 Validation loss   : 0.1395269723551992
421 Validation accuracy: 97.20009654839488%
422 -----
423 [49, 100] loss: 0.001
424 [49, 200] loss: 0.001
425 EPOCH             : 49
426 Training loss     : 0.06383988772674715
427 Training accuracy : 99.46294955346367%
428 Validation loss   : 0.10919868264139605
429 Validation accuracy: 98.11730629978277%
430 -----
431 [50, 100] loss: 0.001
432 [50, 200] loss: 0.001
433 EPOCH             : 50
434 Training loss     : 0.06932203185722328
435 Training accuracy : 99.37846970794111%
436 Validation loss   : 0.16645097116787538
437 Validation accuracy: 97.03113685734975%
438 -----
439 [51, 100] loss: 0.000
440 [51, 200] loss: 0.001
441 EPOCH             : 51
442 Training loss     : 0.08104200670174173
443 Training accuracy : 99.02244750181028%
444 Validation loss   : 0.14441727584840708
445 Validation accuracy: 97.15182235095341%
446 -----
447 [52, 100] loss: 0.001
448 [52, 200] loss: 0.001
449 EPOCH             : 52
450 Training loss     : 0.06603534307106952
451 Training accuracy : 99.33622978517982%
452 Validation loss   : 0.1274458672037569
453 Validation accuracy: 97.63456432536809%
454 -----
455 [53, 100] loss: 0.000
456 [53, 200] loss: 0.001
457 EPOCH             : 53
458 Training loss     : 0.06256450559820727
459 Training accuracy : 99.45691527878348%
460 Validation loss   : 0.15524338030049745
461 Validation accuracy: 96.88631426502535%
462 -----
463 [54, 100] loss: 0.001
464 [54, 200] loss: 0.001
465 EPOCH             : 54
466 Training loss     : 0.06825622732789512
467 Training accuracy : 99.38450398262128%
468 Validation loss   : 0.13575932492157874
469 Validation accuracy: 97.44146753560221%
470 -----
```

```
471 [55, 100] loss: 0.000
472 [55, 200] loss: 0.001
473 EPOCH : 55
474 Training loss : 0.06302643701301057
475 Training accuracy : 99.54742939898624%
476 Validation loss : 0.1287466808128495
477 Validation accuracy: 97.61042722664736%
478 -----
479 [56, 100] loss: 0.001
480 [56, 200] loss: 0.001
481 EPOCH : 56
482 Training loss : 0.07608350005784013
483 Training accuracy : 99.10692734733286%
484 Validation loss : 0.13214972489357224
485 Validation accuracy: 97.29664494327781%
486 -----
487 [57, 100] loss: 0.001
488 [57, 200] loss: 0.001
489 EPOCH : 57
490 Training loss : 0.0794247483505076
491 Training accuracy : 99.02848177649047%
492 Validation loss : 0.13978739542112872
493 Validation accuracy: 97.17595944967415%
494 -----
495 [58, 100] loss: 0.000
496 [58, 200] loss: 0.001
497 EPOCH : 58
498 Training loss : 0.058917978694408436
499 Training accuracy : 99.52932657494569%
500 Validation loss : 0.11710994576820855
501 Validation accuracy: 97.9242095100169%
502 -----
503 [59, 100] loss: 0.001
504 [59, 200] loss: 0.001
505 EPOCH : 59
506 Training loss : 0.06961916557205435
507 Training accuracy : 99.3060584117789%
508 Validation loss : 0.15298756383738885
509 Validation accuracy: 97.39319333816076%
510 -----
511 [60, 100] loss: 0.000
512 [60, 200] loss: 0.001
513 EPOCH : 60
514 Training loss : 0.07565031668399227
515 Training accuracy : 99.1612358194545%
516 Validation loss : 0.14814261851493732
517 Validation accuracy: 97.12768525223268%
518 -----
519 [61, 100] loss: 0.001
520 [61, 200] loss: 0.001
521 EPOCH : 61
522 Training loss : 0.06797202895754005
523 Training accuracy : 99.37846970794111%
524 Validation loss : 0.1438861262127883
525 Validation accuracy: 96.91045136374608%
526 -----
527 [62, 100] loss: 0.001
528 [62, 200] loss: 0.001
529 EPOCH : 62
530 Training loss : 0.06031082155133053
531 Training accuracy : 99.57760077238716%
532 Validation loss : 0.1310263489744613
533 Validation accuracy: 97.68283852280956%
534 -----
535 [63, 100] loss: 0.001
536 [63, 200] loss: 0.001
537 EPOCH : 63
538 Training loss : 0.07944371682015589
```

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539 Training accuracy : 99.10089307265267%
540 Validation loss   : 0.14092004854495532
541 Validation accuracy: 97.44146753560221%
542 -----
543 [64, 100] loss: 0.001
544 [64, 200] loss: 0.001
545 EPOCH             : 64
546 Training loss     : 0.06375418741893515
547 Training accuracy : 99.46294955346367%
548 Validation loss   : 0.1498789919075861
549 Validation accuracy: 97.41733043688149%
550 -----
551 [65, 100] loss: 0.001
552 [65, 200] loss: 0.000
553 EPOCH             : 65
554 Training loss     : 0.06783490219238211
555 Training accuracy : 99.40864108134203%
556 Validation loss   : 0.15567856901888394
557 Validation accuracy: 96.95872556118755%
558 -----
559 [66, 100] loss: 0.001
560 [66, 200] loss: 0.001
561 EPOCH             : 66
562 Training loss     : 0.0671672906214967
563 Training accuracy : 99.34226405986%
564 Validation loss   : 0.1504877643138638
565 Validation accuracy: 97.41733043688149%
566 -----
567 [67, 100] loss: 0.001
568 [67, 200] loss: 0.001
569 EPOCH             : 67
570 Training loss     : 0.07871966975741763
571 Training accuracy : 99.13106444605359%
572 Validation loss   : 0.12158286102491964
573 Validation accuracy: 97.82766111513396%
574 -----
575 [68, 100] loss: 0.000
576 [68, 200] loss: 0.001
577 EPOCH             : 68
578 Training loss     : 0.058093781139492096
579 Training accuracy : 99.58966932174752%
580 Validation loss   : 0.11187192676092098
581 Validation accuracy: 98.09316920106203%
582 -----
583 [69, 100] loss: 0.000
584 [69, 200] loss: 0.001
585 EPOCH             : 69
586 Training loss     : 0.06549994489607419
587 Training accuracy : 99.42674390538258%
588 Validation loss   : 0.13952907507700993
589 Validation accuracy: 97.20009654839488%
590 -----
591 [70, 100] loss: 0.001
592 [70, 200] loss: 0.001
593 EPOCH             : 70
594 Training loss     : 0.06788786744369334
595 Training accuracy : 99.36036688390055%
596 Validation loss   : 0.1166396107674796
597 Validation accuracy: 97.85179821385469%
598 -----
599 [71, 100] loss: 0.001
600 [71, 200] loss: 0.001
601 EPOCH             : 71
602 Training loss     : 0.07163731975023682
603 Training accuracy : 99.34226405986%
604 Validation loss   : 0.14360688004895394
605 Validation accuracy: 97.39319333816076%
606 -----
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607 [72, 100] loss: 0.001
608 [72, 200] loss: 0.000
609 EPOCH : 72
610 Training loss : 0.07233930265676161
611 Training accuracy : 99.30002413709872%
612 Validation loss : 0.13810664882931536
613 Validation accuracy: 97.27250784455708%
614 -----
615 [73, 100] loss: 0.001
616 [73, 200] loss: 0.000
617 EPOCH : 73
618 Training loss : 0.06629165016508551
619 Training accuracy : 99.38450398262128%
620 Validation loss : 0.1170972223417672
621 Validation accuracy: 97.68283852280956%
622 -----
623 [74, 100] loss: 0.000
624 [74, 200] loss: 0.001
625 EPOCH : 74
626 Training loss : 0.05785022401562239
627 Training accuracy : 99.637943519189%
628 Validation loss : 0.15007459953330204
629 Validation accuracy: 97.41733043688149%
630 -----
631 [75, 100] loss: 0.001
632 [75, 200] loss: 0.000
633 EPOCH : 75
634 Training loss : 0.07140519450374366
635 Training accuracy : 99.27588703837799%
636 Validation loss : 0.1290880489142195
637 Validation accuracy: 97.58629012792662%
638 -----
639 [76, 100] loss: 0.001
640 [76, 200] loss: 0.001
641 EPOCH : 76
642 Training loss : 0.07480320555991721
643 Training accuracy : 99.16727009413468%
644 Validation loss : 0.12771354790848002
645 Validation accuracy: 97.48974173304369%
646 -----
647 [77, 100] loss: 0.001
648 [77, 200] loss: 0.001
649 EPOCH : 77
650 Training loss : 0.06576614250545193
651 Training accuracy : 99.40864108134203%
652 Validation loss : 0.1255098141940239
653 Validation accuracy: 97.63456432536809%
654 -----
655 [78, 100] loss: 0.000
656 [78, 200] loss: 0.000
657 EPOCH : 78
658 Training loss : 0.05879514985777404
659 Training accuracy : 99.67414916727009%
660 Validation loss : 0.131252372492174
661 Validation accuracy: 97.73111272025102%
662 -----
663 [79, 100] loss: 0.001
664 [79, 200] loss: 0.001
665 EPOCH : 79
666 Training loss : 0.06566326022004264
667 Training accuracy : 99.50518947622496%
668 Validation loss : 0.11053327912154072
669 Validation accuracy: 97.90007241129616%
670 -----
671 [80, 100] loss: 0.001
672 [80, 200] loss: 0.001
673 EPOCH : 80
674 Training loss : 0.0731023902942557
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675 Training accuracy : 99.20951001689598%
676 Validation loss   : 0.12789478792305187
677 Validation accuracy: 97.46560463432296%
678 -----
679 [81, 100] loss: 0.001
680 [81, 200] loss: 0.001
681 EPOCH             : 81
682 Training loss     : 0.07365622127398529
683 Training accuracy : 99.21554429157615%
684 Validation loss   : 0.1371067446727785
685 Validation accuracy: 97.10354815351195%
686 -----
687 [82, 100] loss: 0.000
688 [82, 200] loss: 0.000
689 EPOCH             : 82
690 Training loss     : 0.05516632980636258
691 Training accuracy : 99.66208061790972%
692 Validation loss   : 0.11982076524278262
693 Validation accuracy: 97.77938691769249%
694 -----
695 [83, 100] loss: 0.001
696 [83, 200] loss: 0.000
697 EPOCH             : 83
698 Training loss     : 0.06151819726910362
699 Training accuracy : 99.55346367366643%
700 Validation loss   : 0.16466768686247138
701 Validation accuracy: 97.00699975862901%
702 -----
703 [84, 100] loss: 0.000
704 [84, 200] loss: 0.001
705 EPOCH             : 84
706 Training loss     : 0.0831486005700213
707 Training accuracy : 99.00434467776974%
708 Validation loss   : 0.14282641052883258
709 Validation accuracy: 97.17595944967415%
710 -----
711 [85, 100] loss: 0.001
712 [85, 200] loss: 0.000
713 EPOCH             : 85
714 Training loss     : 0.059862130834317975
715 Training accuracy : 99.52329230026551%
716 Validation loss   : 0.1346506692636367
717 Validation accuracy: 97.65870142408882%
718 -----
719 [86, 100] loss: 0.001
720 [86, 200] loss: 0.001
721 EPOCH             : 86
722 Training loss     : 0.06251887184768491
723 Training accuracy : 99.46898382814386%
724 Validation loss   : 0.12402170705185286
725 Validation accuracy: 98.02075790489982%
726 -----
727 [87, 100] loss: 0.000
728 [87, 200] loss: 0.001
729 EPOCH             : 87
730 Training loss     : 0.06218216239672308
731 Training accuracy : 99.53536084962587%
732 Validation loss   : 0.11634940753488358
733 Validation accuracy: 97.87593531257542%
734 -----
735 [88, 100] loss: 0.001
736 [88, 200] loss: 0.001
737 EPOCH             : 88
738 Training loss     : 0.0749651390214833
739 Training accuracy : 99.1612358194545%
740 Validation loss   : 0.15695933935408024
741 Validation accuracy: 97.07941105479121%
742 -----
```

```
743 [89, 100] loss: 0.001
744 [89, 200] loss: 0.001
745 EPOCH : 89
746 Training loss : 0.07488423874347704
747 Training accuracy : 99.13106444605359%
748 Validation loss : 0.12222646510229863
749 Validation accuracy: 97.46560463432296%
750 -----
751 [90, 100] loss: 0.000
752 [90, 200] loss: 0.000
753 EPOCH : 90
754 Training loss : 0.06223993279955222
755 Training accuracy : 99.47501810282404%
756 Validation loss : 0.12182498196890294
757 Validation accuracy: 98.02075790489982%
758 -----
759 [91, 100] loss: 0.001
760 [91, 200] loss: 0.001
761 EPOCH : 91
762 Training loss : 0.05997426914702629
763 Training accuracy : 99.59570359642771%
764 Validation loss : 0.11796002085301543
765 Validation accuracy: 98.0690321023413%
766 -----
767 [92, 100] loss: 0.000
768 [92, 200] loss: 0.001
769 EPOCH : 92
770 Training loss : 0.07383213723997778
771 Training accuracy : 99.22157856625634%
772 Validation loss : 0.13825951358013444
773 Validation accuracy: 97.41733043688149%
774 -----
775 [93, 100] loss: 0.000
776 [93, 200] loss: 0.001
777 EPOCH : 93
778 Training loss : 0.0645948118082199
779 Training accuracy : 99.47501810282404%
780 Validation loss : 0.1270801163571427
781 Validation accuracy: 97.73111272025102%
782 -----
783 [94, 100] loss: 0.000
784 [94, 200] loss: 0.000
785 EPOCH : 94
786 Training loss : 0.06105815560064424
787 Training accuracy : 99.58966932174752%
788 Validation loss : 0.14096700699180328
789 Validation accuracy: 97.70697562153029%
790 -----
791 [95, 100] loss: 0.001
792 [95, 200] loss: 0.001
793 EPOCH : 95
794 Training loss : 0.06403287369043045
795 Training accuracy : 99.49312092686459%
796 Validation loss : 0.12323571563543918
797 Validation accuracy: 97.80352401641322%
798 -----
799 [96, 100] loss: 0.000
800 [96, 200] loss: 0.001
801 EPOCH : 96
802 Training loss : 0.06253211062483358
803 Training accuracy : 99.49915520154478%
804 Validation loss : 0.13558912841185491
805 Validation accuracy: 97.56215302920589%
806 -----
807 [97, 100] loss: 0.001
808 [97, 200] loss: 0.001
809 EPOCH : 97
810 Training loss : 0.07197071881994026
```

```
811 Training accuracy : 99.20951001689598%
812 Validation loss   : 0.14659907010451567
813 Validation accuracy: 97.12768525223268%
814 -----
815 [98, 100] loss: 0.001
816 [98, 200] loss: 0.001
817 EPOCH             : 98
818 Training loss     : 0.06858403991162418
819 Training accuracy : 99.32416123581946%
820 Validation loss   : 0.14335073700798268
821 Validation accuracy: 97.46560463432296%
822 -----
823 [99, 100] loss: 0.000
824 [99, 200] loss: 0.000
825 EPOCH             : 99
826 Training loss     : 0.05850832360308152
827 Training accuracy : 99.56553222302679%
828 Validation loss   : 0.10922858722538525
829 Validation accuracy: 98.0690321023413%
830 -----
831 [100, 100] loss: 0.001
832 [100, 200] loss: 0.001
833 EPOCH             : 100
834 Training loss     : 0.05636617055038252
835 Training accuracy : 99.7103548153512%
836 Validation loss   : 0.13767793389757044
837 Validation accuracy: 97.65870142408882%
838 -----
839 [101, 100] loss: 0.001
840 [101, 200] loss: 0.002
841 EPOCH             : 101
842 Training loss     : 0.07764251827618192
843 Training accuracy : 99.0526188752112%
844 Validation loss   : 0.14273069746794115
845 Validation accuracy: 97.12768525223268%
846 -----
847 [102, 100] loss: 0.000
848 [102, 200] loss: 0.000
849 EPOCH             : 102
850 Training loss     : 0.0657198088715222
851 Training accuracy : 99.34829833454019%
852 Validation loss   : 0.14331459141629288
853 Validation accuracy: 97.07941105479121%
854 -----
855 [103, 100] loss: 0.001
856 [103, 200] loss: 0.000
857 EPOCH             : 103
858 Training loss     : 0.06342207575488891
859 Training accuracy : 99.53536084962587%
860 Validation loss   : 0.1279922980143487
861 Validation accuracy: 97.32078204199856%
862 -----
863 [104, 100] loss: 0.001
864 [104, 200] loss: 0.000
865 EPOCH             : 104
866 Training loss     : 0.05495897354839103
867 Training accuracy : 99.68018344195028%
868 Validation loss   : 0.12802607254103823
869 Validation accuracy: 97.65870142408882%
870 -----
871 [105, 100] loss: 0.000
872 [105, 200] loss: 0.001
873 EPOCH             : 105
874 Training loss     : 0.07294940050748014
875 Training accuracy : 99.25174993965726%
876 Validation loss   : 0.1406435113640301
877 Validation accuracy: 97.15182235095341%
878 -----
```

```
879 [106, 100] loss: 0.001
880 [106, 200] loss: 0.001
881 EPOCH : 106
882 Training loss : 0.06767769425121908
883 Training accuracy : 99.3060584117789%
884 Validation loss : 0.13023311056550965
885 Validation accuracy: 97.73111272025102%
886 -----
887 [107, 100] loss: 0.000
888 [107, 200] loss: 0.000
889 EPOCH : 107
890 Training loss : 0.054657918112651464
891 Training accuracy : 99.72845763939175%
892 Validation loss : 0.1198561637838365
893 Validation accuracy: 97.82766111513396%
894 -----
895 [108, 100] loss: 0.000
896 [108, 200] loss: 0.001
897 EPOCH : 108
898 Training loss : 0.0730317629911518
899 Training accuracy : 99.22157856625634%
900 Validation loss : 0.13409188712762515
901 Validation accuracy: 97.51387883176442%
902 -----
903 [109, 100] loss: 0.000
904 [109, 200] loss: 0.000
905 EPOCH : 109
906 Training loss : 0.06284941944729554
907 Training accuracy : 99.4870866521844%
908 Validation loss : 0.11753311477765178
909 Validation accuracy: 97.97248370745837%
910 -----
911 [110, 100] loss: 0.001
912 [110, 200] loss: 0.000
913 EPOCH : 110
914 Training loss : 0.05944362764711861
915 Training accuracy : 99.60173787110789%
916 Validation loss : 0.13277614879170796
917 Validation accuracy: 97.90007241129616%
918 -----
919 [111, 100] loss: 0.000
920 [111, 200] loss: 0.001
921 EPOCH : 111
922 Training loss : 0.06936953805392415
923 Training accuracy : 99.2698527636978%
924 Validation loss : 0.12880466653619904
925 Validation accuracy: 97.73111272025102%
926 -----
927 [112, 100] loss: 0.001
928 [112, 200] loss: 0.001
929 EPOCH : 112
930 Training loss : 0.06673532041005975
931 Training accuracy : 99.36036688390055%
932 Validation loss : 0.15466087082575808
933 Validation accuracy: 97.10354815351195%
934 -----
935 [113, 100] loss: 0.002
936 [113, 200] loss: 0.001
937 EPOCH : 113
938 Training loss : 0.0676324620443699
939 Training accuracy : 99.39053825730147%
940 Validation loss : 0.1219233523927505
941 Validation accuracy: 97.75524981897176%
942 -----
943 [114, 100] loss: 0.000
944 [114, 200] loss: 0.001
945 EPOCH : 114
946 Training loss : 0.057132979032644006
```

```
947 Training accuracy : 99.64397779386918%
948 Validation loss   : 0.12607379901130045
949 Validation accuracy: 97.58629012792662%
950 -----
951 [115, 100] loss: 0.001
952 [115, 200] loss: 0.001
953 EPOCH           : 115
954 Training loss    : 0.06567886651583751
955 Training accuracy: 99.43881245474294%
956 Validation loss   : 0.13031779145837666
957 Validation accuracy: 97.61042722664736%
958 -----
959 [116, 100] loss: 0.000
960 [116, 200] loss: 0.001
961 EPOCH           : 116
962 Training loss    : 0.06636200930483525
963 Training accuracy: 99.38450398262128%
964 Validation loss   : 0.14031917030846414
965 Validation accuracy: 97.22423364711561%
966 -----
967 [117, 100] loss: 0.000
968 [117, 200] loss: 0.001
969 EPOCH           : 117
970 Training loss    : 0.06198924475610472
971 Training accuracy: 99.45691527878348%
972 Validation loss   : 0.133086536922174
973 Validation accuracy: 97.39319333816076%
974 -----
975 [118, 100] loss: 0.001
976 [118, 200] loss: 0.000
977 EPOCH           : 118
978 Training loss    : 0.058937935899082604
979 Training accuracy: 99.60173787110789%
980 Validation loss   : 0.12269226733020559
981 Validation accuracy: 97.87593531257542%
982 -----
983 [119, 100] loss: 0.001
984 [119, 200] loss: 0.002
985 EPOCH           : 119
986 Training loss    : 0.07262165918892316
987 Training accuracy: 99.32416123581946%
988 Validation loss   : 0.1381601131742138
989 Validation accuracy: 97.73111272025102%
990 -----
991 [120, 100] loss: 0.001
992 [120, 200] loss: 0.001
993 EPOCH           : 120
994 Training loss    : 0.06363434620217773
995 Training accuracy: 99.46294955346367%
996 Validation loss   : 0.12846125199430494
997 Validation accuracy: 97.39319333816076%
998 -----
999 [121, 100] loss: 0.000
1000 [121, 200] loss: 0.001
1001 EPOCH          : 121
1002 Training loss   : 0.061112890612120906
1003 Training accuracy: 99.52932657494569%
1004 Validation loss  : 0.1576359353144906
1005 Validation accuracy: 96.98286265990828%
1006 -----
1007 [122, 100] loss: 0.001
1008 [122, 200] loss: 0.001
1009 EPOCH          : 122
1010 Training loss   : 0.06334274093684096
1011 Training accuracy: 99.47501810282404%
1012 Validation loss  : 0.11949181044530442
1013 Validation accuracy: 97.77938691769249%
1014 -----
```

```
1015 [123, 100] loss: 0.000
1016 [123, 200] loss: 0.000
1017 EPOCH : 123
1018 Training loss : 0.06395853513857606
1019 Training accuracy : 99.43881245474294%
1020 Validation loss : 0.1355899478858029
1021 Validation accuracy: 97.56215302920589%
1022 -----
1023 [124, 100] loss: 0.000
1024 [124, 200] loss: 0.000
1025 EPOCH : 124
1026 Training loss : 0.06651656081099283
1027 Training accuracy : 99.37846970794111%
1028 Validation loss : 0.13506546907887607
1029 Validation accuracy: 97.36905623944001%
1030 -----
1031 [125, 100] loss: 0.001
1032 [125, 200] loss: 0.001
1033 EPOCH : 125
1034 Training loss : 0.062115876722991854
1035 Training accuracy : 99.55346367366643%
1036 Validation loss : 0.13358369404182555
1037 Validation accuracy: 97.46560463432296%
1038 -----
1039 [126, 100] loss: 0.001
1040 [126, 200] loss: 0.001
1041 EPOCH : 126
1042 Training loss : 0.06492761805412593
1043 Training accuracy : 99.40864108134203%
1044 Validation loss : 0.12309856320417305
1045 Validation accuracy: 97.73111272025102%
1046 -----
1047 [127, 100] loss: 0.001
1048 [127, 200] loss: 0.001
1049 EPOCH : 127
1050 Training loss : 0.06225923327412146
1051 Training accuracy : 99.51725802558532%
1052 Validation loss : 0.16095721977734778
1053 Validation accuracy: 96.83804006758388%
1054 -----
1055 [128, 100] loss: 0.001
1056 [128, 200] loss: 0.001
1057 EPOCH : 128
1058 Training loss : 0.07058476481695496
1059 Training accuracy : 99.28795558773835%
1060 Validation loss : 0.13514429994058758
1061 Validation accuracy: 97.53801593048516%
1062 -----
1063 [129, 100] loss: 0.001
1064 [129, 200] loss: 0.000
1065 EPOCH : 129
1066 Training loss : 0.0660981700209181
1067 Training accuracy : 99.42674390538258%
1068 Validation loss : 0.1241342517853704
1069 Validation accuracy: 97.58629012792662%
1070 -----
1071 [130, 100] loss: 0.000
1072 [130, 200] loss: 0.000
1073 EPOCH : 130
1074 Training loss : 0.052918945091403165
1075 Training accuracy : 99.68018344195028%
1076 Validation loss : 0.13486300560980927
1077 Validation accuracy: 97.56215302920589%
1078 -----
1079 [131, 100] loss: 0.000
1080 [131, 200] loss: 0.000
1081 EPOCH : 131
1082 Training loss : 0.054667750267829406
```

```
1083 Training accuracy : 99.75259473811248%
1084 Validation loss   : 0.12743432217394704
1085 Validation accuracy: 97.9242095100169%
1086 -----
1087 [132, 100] loss: 0.001
1088 [132, 200] loss: 0.001
1089 EPOCH             : 132
1090 Training loss     : 0.08011494631241291
1091 Training accuracy : 99.10089307265267%
1092 Validation loss   : 0.132849327297335
1093 Validation accuracy: 97.34491914071928%
1094 -----
1095 [133, 100] loss: 0.001
1096 [133, 200] loss: 0.001
1097 EPOCH             : 133
1098 Training loss     : 0.06802056387746619
1099 Training accuracy : 99.35433260922038%
1100 Validation loss   : 0.1515367726269132
1101 Validation accuracy: 96.88631426502535%
1102 -----
1103 [134, 100] loss: 0.000
1104 [134, 200] loss: 0.001
1105 EPOCH             : 134
1106 Training loss     : 0.06136932748974794
1107 Training accuracy : 99.51725802558532%
1108 Validation loss   : 0.13616089293728292
1109 Validation accuracy: 97.51387883176442%
1110 -----
1111 [135, 100] loss: 0.000
1112 [135, 200] loss: 0.000
1113 EPOCH             : 135
1114 Training loss     : 0.05302998244460297
1115 Training accuracy : 99.74052618875211%
1116 Validation loss   : 0.13734960084142186
1117 Validation accuracy: 97.58629012792662%
1118 -----
1119 [136, 100] loss: 0.000
1120 [136, 200] loss: 0.001
1121 EPOCH             : 136
1122 Training loss     : 0.07303835331113218
1123 Training accuracy : 99.3060584117789%
1124 Validation loss   : 0.13508219866254265
1125 Validation accuracy: 97.36905623944001%
1126 -----
1127 [137, 100] loss: 0.001
1128 [137, 200] loss: 0.001
1129 EPOCH             : 137
1130 Training loss     : 0.06723625087202847
1131 Training accuracy : 99.28795558773835%
1132 Validation loss   : 0.12174517723376296
1133 Validation accuracy: 97.73111272025102%
1134 -----
1135 [138, 100] loss: 0.001
1136 [138, 200] loss: 0.001
1137 EPOCH             : 138
1138 Training loss     : 0.06302485912282946
1139 Training accuracy : 99.49915520154478%
1140 Validation loss   : 0.15991732661573893
1141 Validation accuracy: 96.59666908037654%
1142 -----
1143 [139, 100] loss: 0.001
1144 [139, 200] loss: 0.000
1145 EPOCH             : 139
1146 Training loss     : 0.05060655397261625
1147 Training accuracy : 99.81293748491431%
1148 Validation loss   : 0.11682131205265746
1149 Validation accuracy: 97.90007241129616%
1150 -----
```

```
1151 [140, 100] loss: 0.001
1152 [140, 200] loss: 0.001
1153 EPOCH : 140
1154 Training loss : 0.05823166527064445
1155 Training accuracy : 99.66208061790972%
1156 Validation loss : 0.1290983347509496
1157 Validation accuracy: 97.58629012792662%
1158 -----
1159 [141, 100] loss: 0.001
1160 [141, 200] loss: 0.001
1161 EPOCH : 141
1162 Training loss : 0.08572057655632798
1163 Training accuracy : 98.83538498672459%
1164 Validation loss : 0.11760338987672268
1165 Validation accuracy: 97.90007241129616%
1166 -----
1167 [142, 100] loss: 0.001
1168 [142, 200] loss: 0.001
1169 EPOCH : 142
1170 Training loss : 0.0574444264871269
1171 Training accuracy : 99.58966932174752%
1172 Validation loss : 0.1089470684600285
1173 Validation accuracy: 98.16558049722424%
1174 -----
1175 [143, 100] loss: 0.001
1176 [143, 200] loss: 0.000
1177 EPOCH : 143
1178 Training loss : 0.051047694257224725
1179 Training accuracy : 99.80086893555395%
1180 Validation loss : 0.1070589770621618
1181 Validation accuracy: 98.16558049722424%
1182 -----
1183 [144, 100] loss: 0.001
1184 [144, 200] loss: 0.001
1185 EPOCH : 144
1186 Training loss : 0.06570217109750844
1187 Training accuracy : 99.39053825730147%
1188 Validation loss : 0.12732001959975434
1189 Validation accuracy: 97.82766111513396%
1190 -----
1191 [145, 100] loss: 0.001
1192 [145, 200] loss: 0.001
1193 EPOCH : 145
1194 Training loss : 0.06267996520458602
1195 Training accuracy : 99.38450398262128%
1196 Validation loss : 0.12755371662202505
1197 Validation accuracy: 97.82766111513396%
1198 -----
1199 [146, 100] loss: 0.000
1200 [146, 200] loss: 0.000
1201 EPOCH : 146
1202 Training loss : 0.07344998395186877
1203 Training accuracy : 99.28795558773835%
1204 Validation loss : 0.11938785085233836
1205 Validation accuracy: 97.90007241129616%
1206 -----
1207 [147, 100] loss: 0.001
1208 [147, 200] loss: 0.000
1209 EPOCH : 147
1210 Training loss : 0.06485385181763999
1211 Training accuracy : 99.36036688390055%
1212 Validation loss : 0.11766360636468731
1213 Validation accuracy: 98.0690321023413%
1214 -----
1215 [148, 100] loss: 0.001
1216 [148, 200] loss: 0.001
1217 EPOCH : 148
1218 Training loss : 0.059426965746302955
```

```
1219 Training accuracy : 99.62587496982863%
1220 Validation loss   : 0.12773068573289006
1221 Validation accuracy: 97.39319333816076%
1222 -----
1223 [149, 100] loss: 0.000
1224 [149, 200] loss: 0.001
1225 EPOCH           : 149
1226 Training loss    : 0.05725683984392771
1227 Training accuracy : 99.58966932174752%
1228 Validation loss   : 0.11574503237747093
1229 Validation accuracy: 97.77938691769249%
1230 -----
1231 [150, 100] loss: 0.000
1232 [150, 200] loss: 0.001
1233 EPOCH           : 150
1234 Training loss    : 0.060214364180494674
1235 Training accuracy : 99.5594979483466%
1236 Validation loss   : 0.18138949858978293
1237 Validation accuracy: 96.4277093893314%
1238 -----
1239 [151, 100] loss: 0.001
1240 [151, 200] loss: 0.001
1241 EPOCH           : 151
1242 Training loss    : 0.07077868762236127
1243 Training accuracy : 99.33019551049964%
1244 Validation loss   : 0.1367014613440438
1245 Validation accuracy: 97.65870142408882%
1246 -----
1247 [152, 100] loss: 0.001
1248 [152, 200] loss: 0.001
1249 EPOCH           : 152
1250 Training loss    : 0.06527994515209304
1251 Training accuracy : 99.42674390538258%
1252 Validation loss   : 0.12063489200813944
1253 Validation accuracy: 97.9242095100169%
1254 -----
1255 [153, 100] loss: 0.000
1256 [153, 200] loss: 0.001
1257 EPOCH           : 153
1258 Training loss    : 0.058753177778979246
1259 Training accuracy : 99.50518947622496%
1260 Validation loss   : 0.11136628256136456
1261 Validation accuracy: 98.1414433985035%
1262 -----
1263 [154, 100] loss: 0.000
1264 [154, 200] loss: 0.000
1265 EPOCH           : 154
1266 Training loss    : 0.05647380545379285
1267 Training accuracy : 99.7103548153512%
1268 Validation loss   : 0.12420024389579565
1269 Validation accuracy: 97.9242095100169%
1270 -----
1271 [155, 100] loss: 0.001
1272 [155, 200] loss: 0.001
1273 EPOCH           : 155
1274 Training loss    : 0.0772299666408177
1275 Training accuracy : 99.09485879797248%
1276 Validation loss   : 0.11970333528783395
1277 Validation accuracy: 97.73111272025102%
1278 -----
1279 [156, 100] loss: 0.001
1280 [156, 200] loss: 0.001
1281 EPOCH           : 156
1282 Training loss    : 0.056749227180476355
1283 Training accuracy : 99.66208061790972%
1284 Validation loss   : 0.13596078298128142
1285 Validation accuracy: 97.48974173304369%
1286 -----
```

```

1287 GroundTruth: 00 0 0000 00 0 0 0 0 0 0000
1288 Predicted: 00 0 00 00 0 0 0 0 0 0 0000
1289 Accuracy of the network on the test images: 90.729141 %
1290 Non-normalized Confusion Matrix
1291 Confusion Matrix for Test Set
1292 [[35 1 0 ... 0 0 0]
1293 [ 0 41 0 ... 0 0 0]
1294 [ 0 0 43 ... 0 0 0]
1295 ...
1296 [ 0 0 1 ... 34 0 0]
1297 [ 1 0 0 ... 0 44 0]
1298 [11 6 0 ... 0 0 62]]
1299 Classification report
1300          precision    recall   f1-score   support
1301
1302      0       0.83     0.95     0.88      60
1303      1       0.85     0.98     0.91      48
1304      2       0.96     0.84     0.90      63
1305      3       0.90     0.81     0.85      54
1306      4       0.80     0.80     0.80      56
1307      5       0.67     0.88     0.76      43
1308      6       0.74     0.91     0.82      44
1309      7       0.91     0.62     0.74      69
1310      8       0.71     0.86     0.78      81
1311      9       0.95     0.76     0.84      71
1312     10      1.00     0.74     0.85      89
1313     11      0.65     0.85     0.74     111
1314     12      0.95     0.92     0.93     118
1315     13      0.90     0.81     0.85     118
1316     14      0.90     0.80     0.85      91
1317     15      0.80     0.79     0.79     110
1318     16      0.92     0.74     0.82     109
1319     17      0.62     0.76     0.68      96
1320     18      0.83     0.55     0.66     104
1321     19      0.85     0.91     0.88      96
1322     20      0.88     0.85     0.86     124
1323     21      0.81     0.84     0.82     134
1324     22      0.98     0.65     0.78     122
1325     23      0.50     0.97     0.66      37
1326     24      0.75     0.88     0.81      43
1327     25      0.73     0.94     0.82      49
1328     26      0.83     0.80     0.82      50
1329     27      0.58     0.78     0.67      50
1330     28      0.85     0.93     0.89      57
1331     29      0.51     0.93     0.66      41
1332     30      0.91     0.45     0.60      64
1333     31      0.99     0.95     0.97     180
1334     32      0.98     1.00     0.99     180
1335     33      0.98     0.99     0.99     180
1336     34      0.90     0.97     0.93     180
1337     35      0.99     0.98     0.99     180
1338     36      0.98     1.00     0.99     180
1339     37      1.00     0.96     0.98     180
1340     38      0.94     0.98     0.96     180
1341     39      0.94     0.98     0.96     180
1342     40      0.98     0.98     0.98     180
1343     41      0.81     0.79     0.80     180
1344     42      0.85     0.77     0.81     180
1345     43      0.98     0.99     0.98     180
1346     44      0.99     0.99     0.99     180
1347     45      0.96     0.97     0.96     180
1348     46      0.94     0.93     0.94     180
1349     47      0.98     0.87     0.92     180
1350     48      0.95     0.94     0.94     180
1351     49      0.93     0.95     0.94     180
1352     50      0.99     0.99     0.99     180
1353     51      0.98     0.90     0.94     180
1354     52      0.99     0.91     0.95     180

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1355	53	0.88	0.97	0.92	180
1356	54	0.91	0.96	0.93	180
1357	55	0.91	0.99	0.95	180
1358	56	0.99	0.98	0.98	180
1359	57	0.95	0.96	0.95	180
1360	58	0.95	0.94	0.95	180
1361	59	0.99	0.97	0.98	180
1362	60	0.96	0.97	0.96	180
1363	61	0.99	0.98	0.99	180
1364					
1365	accuracy			0.91	7982
1366	macro avg	0.88	0.88	0.88	7982
1367	weighted avg	0.92	0.91	0.91	7982
1368					
1369	AUC ROC Curve plotting started!				
1370	AUC ROC Curve (0-4) - Done!				
1371	AUC ROC Curve (5-9) - Done!				
1372	AUC ROC Curve (10-14) - Done!				
1373	AUC ROC Curve (15-19) - Done!				
1374	AUC ROC Curve (20-24) - Done!				
1375	AUC ROC Curve (25-29) - Done!				
1376	AUC ROC Curve (30-34) - Done!				
1377	AUC ROC Curve (35-39) - Done!				
1378	AUC ROC Curve (40-44) - Done!				
1379	AUC ROC Curve (45-49) - Done!				
1380	AUC ROC Curve (50-54) - Done!				
1381	AUC ROC Curve (55-59) - Done!				
1382	Training completed! Trained model saved to: ./ds_trained/SinhalaTamil_CNN_Trained.pt				
1383					