C:\Users\iitfypvmadmin\PycharmProjects\IIT-MSc-FYP-ML\venv\Scripts\python.exe "C:/Program Files/JetBrains/PyCharm 2023.1/plugins/python/helpers/pydev/pydevconsole.py" --mode=client --host=127.0.0.1 --port=53631

import sys; print('Python %s on %s' % (sys.version, sys.platform))

sys.path.extend(['C:\\Users\\iitfypvmadmin\\PycharmProjects\\IIT-MSc-FYP-ML'])

PyDev console: starting.

Python 3.10.10 (tags/v3.10.10:aad5f6a, Feb 7 2023, 17:20:36) [MSC v.1929 64 bit (AMD64)] on win32

runfile('C:\\Users\\iitfypvmadmin\\PycharmProjects\\IIT-MSc-FYP-ML\\ds\_train\\CNN\_Training.py', wdir='C:\\Users\\iitfypvmadmin\\PycharmProjects\\IIT-MSc-FYP-ML\\ds\_train')

Device - cpu

Full Train Set - 20715

Train Set - 16572

Validation Set - 4143

Test Set - 7982

Available Classes ['අ', 'ආ', 'ඇ', 'ඈ', 'ඉ', 'ඊ', 'උ', 'එ', 'ඒ', 'ඔ', 'ඕ', 'ක', 'කා', 'කැ', 'කෑ', 'කි', 'කී', 'කු', 'කූ', 'ක්', 'ක්\u200dර', 'ක්\u200dරි', 'ක්\u200dරී', 'ග', 'ගා', 'ගැ', 'ගෑ', 'ගි', 'ගී', 'ගු', 'ගූ', 'ா', 'அ', 'ஆ', 'இ', 'ஈ', 'உ', 'ஊ', 'எ', 'ஏ', 'ஐ', 'ஒ', 'ஓ', 'ஔ', 'ஃ', 'க்', 'க', 'கி', 'கீ', 'கு', 'கூ', 'ச்', 'ச', 'சி', 'சீ', 'சு', 'சூ', 'ங்', 'ங', 'ஙி', 'ஙீ', 'ஙு']

Net - Net(

(conv1): Conv2d(1, 16, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1))

(bn1): BatchNorm2d(16, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(conv2): Conv2d(16, 16, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1))

(bn2): BatchNorm2d(16, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(pool1): MaxPool2d(kernel\_size=2, stride=2, padding=0, dilation=1, ceil\_mode=False)

(conv3): Conv2d(16, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1))

(bn3): BatchNorm2d(32, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(conv4): Conv2d(32, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1))

(bn4): BatchNorm2d(32, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(pool2): MaxPool2d(kernel\_size=2, stride=2, padding=0, dilation=1, ceil\_mode=False)

(conv5): Conv2d(32, 64, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1))

(bn5): BatchNorm2d(64, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(conv6): Conv2d(64, 64, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1))

(bn6): BatchNorm2d(64, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(pool3): MaxPool2d(kernel\_size=2, stride=2, padding=0, dilation=1, ceil\_mode=False)

(fc1): Linear(in\_features=4096, out\_features=1024, bias=True)

(bn7): BatchNorm1d(1024, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(fc2): Linear(in\_features=1024, out\_features=256, bias=True)

(bn8): BatchNorm1d(256, eps=1e-05, momentum=0.1, affine=True, track\_running\_stats=True)

(fc3): Linear(in\_features=256, out\_features=62, bias=True)

)

----------------------------------------------------

[1, 100] loss: 0.005

[1, 200] loss: 0.003

EPOCH : 1

Training loss : 0.6306251548437459

Training accuracy : 84.34105720492397%

Validation loss : 0.2887464583625029

Validation accuracy: 92.203717113203%

----------------------------------------------------

[2, 100] loss: 0.002

[2, 200] loss: 0.002

EPOCH : 2

Training loss : 0.20091103690274234

Training accuracy : 94.99758629012793%

Validation loss : 0.22710158311023018

Validation accuracy: 94.85879797248371%

----------------------------------------------------

[3, 100] loss: 0.001

[3, 200] loss: 0.001

EPOCH : 3

Training loss : 0.16239759174200064

Training accuracy : 96.54236060825488%

Validation loss : 0.21314342799406538

Validation accuracy: 94.78638667632151%

----------------------------------------------------

[4, 100] loss: 0.002

[4, 200] loss: 0.002

EPOCH : 4

Training loss : 0.15479732691997092

Training accuracy : 96.78373159546223%

Validation loss : 0.20497278599758642

Validation accuracy: 94.88293507120444%

----------------------------------------------------

[5, 100] loss: 0.002

[5, 200] loss: 0.002

EPOCH : 5

Training loss : 0.14693413661523572

Training accuracy : 97.12768525223268%

Validation loss : 0.20719271157347807

Validation accuracy: 94.88293507120444%

----------------------------------------------------

[6, 100] loss: 0.001

[6, 200] loss: 0.002

EPOCH : 6

Training loss : 0.13596719299109697

Training accuracy : 97.35095341539947%

Validation loss : 0.1701822475393757

Validation accuracy: 96.45184648805214%

----------------------------------------------------

[7, 100] loss: 0.002

[7, 200] loss: 0.002

EPOCH : 7

Training loss : 0.14170587923168243

Training accuracy : 97.302679217958%

Validation loss : 0.17504928896400107

Validation accuracy: 95.87255611875453%

----------------------------------------------------

[8, 100] loss: 0.001

[8, 200] loss: 0.002

EPOCH : 8

Training loss : 0.1297830603935855

Training accuracy : 97.48974173304369%

Validation loss : 0.2006250480911509

Validation accuracy: 95.02775766352885%

----------------------------------------------------

[9, 100] loss: 0.001

[9, 200] loss: 0.001

EPOCH : 9

Training loss : 0.11743483532174268

Training accuracy : 98.05092927830074%

Validation loss : 0.19021899280644775

Validation accuracy: 95.67945932898866%

----------------------------------------------------

[10, 100] loss: 0.001

[10, 200] loss: 0.001

EPOCH : 10

Training loss : 0.11943321859033793

Training accuracy : 98.00868935553946%

Validation loss : 0.18475638476368772

Validation accuracy: 95.65532223026793%

----------------------------------------------------

[11, 100] loss: 0.001

[11, 200] loss: 0.001

EPOCH : 11

Training loss : 0.11326395708554153

Training accuracy : 98.11127202510258%

Validation loss : 0.1863369609087871

Validation accuracy: 96.30702389572774%

----------------------------------------------------

[12, 100] loss: 0.001

[12, 200] loss: 0.001

EPOCH : 12

Training loss : 0.10332329469460265

Training accuracy : 98.52763697803525%

Validation loss : 0.1656406703215131

Validation accuracy: 96.7173545739802%

----------------------------------------------------

[13, 100] loss: 0.001

[13, 200] loss: 0.001

EPOCH : 13

Training loss : 0.10786578422463979

Training accuracy : 98.26212889210717%

Validation loss : 0.1536544677343974

Validation accuracy: 96.83804006758388%

----------------------------------------------------

[14, 100] loss: 0.001

[14, 200] loss: 0.001

EPOCH : 14

Training loss : 0.0948656946600505

Training accuracy : 98.58797972483707%

Validation loss : 0.14504796360070193

Validation accuracy: 96.95872556118755%

----------------------------------------------------

[15, 100] loss: 0.001

[15, 200] loss: 0.001

EPOCH : 15

Training loss : 0.09190477047051723

Training accuracy : 98.73883659184166%

Validation loss : 0.15002143414677152

Validation accuracy: 97.12768525223268%

----------------------------------------------------

[16, 100] loss: 0.001

[16, 200] loss: 0.001

EPOCH : 16

Training loss : 0.09452821974330786

Training accuracy : 98.61815109823799%

Validation loss : 0.1672571391953439

Validation accuracy: 95.99324161235819%

----------------------------------------------------

[17, 100] loss: 0.001

[17, 200] loss: 0.001

EPOCH : 17

Training loss : 0.09357408019272337

Training accuracy : 98.68452811972001%

Validation loss : 0.15248813273507905

Validation accuracy: 96.69321747525947%

----------------------------------------------------

[18, 100] loss: 0.001

[18, 200] loss: 0.001

EPOCH : 18

Training loss : 0.08701094883581074

Training accuracy : 98.85952208544533%

Validation loss : 0.13059767328999394

Validation accuracy: 97.29664494327781%

----------------------------------------------------

[19, 100] loss: 0.001

[19, 200] loss: 0.001

EPOCH : 19

Training loss : 0.08126121623459111

Training accuracy : 99.05865314989138%

Validation loss : 0.13229563010075573

Validation accuracy: 97.27250784455708%

----------------------------------------------------

[20, 100] loss: 0.001

[20, 200] loss: 0.001

EPOCH : 20

Training loss : 0.08587745789482545

Training accuracy : 98.90176200820662%

Validation loss : 0.16422299915196784

Validation accuracy: 96.54839488293507%

----------------------------------------------------

[21, 100] loss: 0.001

[21, 200] loss: 0.001

EPOCH : 21

Training loss : 0.09312938023902585

Training accuracy : 98.68452811972001%

Validation loss : 0.16744555881453285

Validation accuracy: 96.18633840212406%

----------------------------------------------------

[22, 100] loss: 0.001

[22, 200] loss: 0.001

EPOCH : 22

Training loss : 0.08148170408061987

Training accuracy : 99.03451605117066%

Validation loss : 0.17419286997687147

Validation accuracy: 96.23461259956554%

----------------------------------------------------

[23, 100] loss: 0.001

[23, 200] loss: 0.001

EPOCH : 23

Training loss : 0.0811766042258755

Training accuracy : 98.99831040308955%

Validation loss : 0.13589524100605427

Validation accuracy: 97.32078204199856%

----------------------------------------------------

[24, 100] loss: 0.001

[24, 200] loss: 0.001

EPOCH : 24

Training loss : 0.0769266580833262

Training accuracy : 99.07072169925175%

Validation loss : 0.14379427170022627

Validation accuracy: 97.24837074583635%

----------------------------------------------------

[25, 100] loss: 0.001

[25, 200] loss: 0.000

EPOCH : 25

Training loss : 0.08508684749249931

Training accuracy : 98.93796765628771%

Validation loss : 0.1521336235287625

Validation accuracy: 96.8621771663046%

----------------------------------------------------

[26, 100] loss: 0.001

[26, 200] loss: 0.001

EPOCH : 26

Training loss : 0.079759643564413

Training accuracy : 99.02244750181028%

Validation loss : 0.13831754562908286

Validation accuracy: 97.22423364711561%

----------------------------------------------------

[27, 100] loss: 0.001

[27, 200] loss: 0.001

EPOCH : 27

Training loss : 0.0812387637490096

Training accuracy : 98.97417330436882%

Validation loss : 0.15877441332129041

Validation accuracy: 96.7897658701424%

----------------------------------------------------

[28, 100] loss: 0.000

[28, 200] loss: 0.001

EPOCH : 28

Training loss : 0.07583118778422579

Training accuracy : 99.13709872073377%

Validation loss : 0.12696307251598996

Validation accuracy: 97.63456432536809%

----------------------------------------------------

[29, 100] loss: 0.000

[29, 200] loss: 0.001

EPOCH : 29

Training loss : 0.08335872425021339

Training accuracy : 99.0164132271301%

Validation loss : 0.16420736135620442

Validation accuracy: 96.4277093893314%

----------------------------------------------------

[30, 100] loss: 0.001

[30, 200] loss: 0.002

EPOCH : 30

Training loss : 0.07910195992903925

Training accuracy : 99.05865314989138%

Validation loss : 0.20092172919624876

Validation accuracy: 95.24499155201545%

----------------------------------------------------

[31, 100] loss: 0.001

[31, 200] loss: 0.000

EPOCH : 31

Training loss : 0.07427165600633724

Training accuracy : 99.13709872073377%

Validation loss : 0.1132737730483401

Validation accuracy: 97.82766111513396%

----------------------------------------------------

[32, 100] loss: 0.000

[32, 200] loss: 0.001

EPOCH : 32

Training loss : 0.06718026121371097

Training accuracy : 99.42070963070239%

Validation loss : 0.13835874295539682

Validation accuracy: 97.03113685734975%

----------------------------------------------------

[33, 100] loss: 0.001

[33, 200] loss: 0.001

EPOCH : 33

Training loss : 0.07433598258200114

Training accuracy : 99.25778421433743%

Validation loss : 0.14128968061354608

Validation accuracy: 97.07941105479121%

----------------------------------------------------

[34, 100] loss: 0.001

[34, 200] loss: 0.001

EPOCH : 34

Training loss : 0.0783568678013288

Training accuracy : 99.02244750181028%

Validation loss : 0.17350105856053644

Validation accuracy: 96.81390296886315%

----------------------------------------------------

[35, 100] loss: 0.001

[35, 200] loss: 0.001

EPOCH : 35

Training loss : 0.07764556657252264

Training accuracy : 99.04055032585083%

Validation loss : 0.11885844662717193

Validation accuracy: 97.68283852280956%

----------------------------------------------------

[36, 100] loss: 0.000

[36, 200] loss: 0.001

EPOCH : 36

Training loss : 0.06607325063964868

Training accuracy : 99.42674390538258%

Validation loss : 0.12862105655002617

Validation accuracy: 97.80352401641322%

----------------------------------------------------

[37, 100] loss: 0.000

[37, 200] loss: 0.001

EPOCH : 37

Training loss : 0.07254423318696489

Training accuracy : 99.30002413709872%

Validation loss : 0.12818539715204555

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[38, 100] loss: 0.001

[38, 200] loss: 0.002

EPOCH : 38

Training loss : 0.07775482841801765

Training accuracy : 99.09485879797248%

Validation loss : 0.13810207709695244

Validation accuracy: 97.22423364711561%

----------------------------------------------------

[39, 100] loss: 0.001

[39, 200] loss: 0.001

EPOCH : 39

Training loss : 0.08151874215223638

Training accuracy : 98.93796765628771%

Validation loss : 0.15753821160751294

Validation accuracy: 96.8621771663046%

----------------------------------------------------

[40, 100] loss: 0.001

[40, 200] loss: 0.001

EPOCH : 40

Training loss : 0.06358907843107997

Training accuracy : 99.4870866521844%

Validation loss : 0.1606287142518578

Validation accuracy: 96.88631426502535%

----------------------------------------------------

[41, 100] loss: 0.001

[41, 200] loss: 0.001

EPOCH : 41

Training loss : 0.06690208614232199

Training accuracy : 99.34226405986%

Validation loss : 0.13602084012069537

Validation accuracy: 97.39319333816076%

----------------------------------------------------

[42, 100] loss: 0.001

[42, 200] loss: 0.001

EPOCH : 42

Training loss : 0.07635163291911126

Training accuracy : 99.14916727009414%

Validation loss : 0.14374563511575214

Validation accuracy: 96.83804006758388%

----------------------------------------------------

[43, 100] loss: 0.000

[43, 200] loss: 0.000

EPOCH : 43

Training loss : 0.07733259618555668

Training accuracy : 99.20347574221579%

Validation loss : 0.13632539663515084

Validation accuracy: 97.51387883176442%

----------------------------------------------------

[44, 100] loss: 0.001

[44, 200] loss: 0.001

EPOCH : 44

Training loss : 0.07845014614268199

Training accuracy : 99.0888245232923%

Validation loss : 0.10348152216580533

Validation accuracy: 98.26212889210717%

----------------------------------------------------

[45, 100] loss: 0.000

[45, 200] loss: 0.001

EPOCH : 45

Training loss : 0.05753876225343511

Training accuracy : 99.62587496982863%

Validation loss : 0.13932696638721906

Validation accuracy: 97.41733043688149%

----------------------------------------------------

[46, 100] loss: 0.001

[46, 200] loss: 0.001

EPOCH : 46

Training loss : 0.0687082103419183

Training accuracy : 99.36640115858074%

Validation loss : 0.1526906625562148

Validation accuracy: 96.76562877142167%

----------------------------------------------------

[47, 100] loss: 0.000

[47, 200] loss: 0.000

EPOCH : 47

Training loss : 0.0697522773392788

Training accuracy : 99.37846970794111%

Validation loss : 0.14322471894879518

Validation accuracy: 97.56215302920589%

----------------------------------------------------

[48, 100] loss: 0.001

[48, 200] loss: 0.001

EPOCH : 48

Training loss : 0.09028470997444363

Training accuracy : 98.72073376780111%

Validation loss : 0.1395269723551992

Validation accuracy: 97.20009654839488%

----------------------------------------------------

[49, 100] loss: 0.001

[49, 200] loss: 0.001

EPOCH : 49

Training loss : 0.06383988772674715

Training accuracy : 99.46294955346367%

Validation loss : 0.10919868264139605

Validation accuracy: 98.11730629978277%

----------------------------------------------------

[50, 100] loss: 0.001

[50, 200] loss: 0.001

EPOCH : 50

Training loss : 0.06932203185722328

Training accuracy : 99.37846970794111%

Validation loss : 0.16645097116787538

Validation accuracy: 97.03113685734975%

----------------------------------------------------

[51, 100] loss: 0.000

[51, 200] loss: 0.001

EPOCH : 51

Training loss : 0.08104200670174173

Training accuracy : 99.02244750181028%

Validation loss : 0.14441727584840708

Validation accuracy: 97.15182235095341%

----------------------------------------------------

[52, 100] loss: 0.001

[52, 200] loss: 0.001

EPOCH : 52

Training loss : 0.06603534307106952

Training accuracy : 99.33622978517982%

Validation loss : 0.1274458672037569

Validation accuracy: 97.63456432536809%

----------------------------------------------------

[53, 100] loss: 0.000

[53, 200] loss: 0.001

EPOCH : 53

Training loss : 0.06256450559820727

Training accuracy : 99.45691527878348%

Validation loss : 0.15524338030049745

Validation accuracy: 96.88631426502535%

----------------------------------------------------

[54, 100] loss: 0.001

[54, 200] loss: 0.001

EPOCH : 54

Training loss : 0.06825622732789512

Training accuracy : 99.38450398262128%

Validation loss : 0.13575932492157874

Validation accuracy: 97.44146753560221%

----------------------------------------------------

[55, 100] loss: 0.000

[55, 200] loss: 0.001

EPOCH : 55

Training loss : 0.06302643701301057

Training accuracy : 99.54742939898624%

Validation loss : 0.1287466808128495

Validation accuracy: 97.61042722664736%

----------------------------------------------------

[56, 100] loss: 0.001

[56, 200] loss: 0.001

EPOCH : 56

Training loss : 0.07608350005784013

Training accuracy : 99.10692734733286%

Validation loss : 0.13214972489357224

Validation accuracy: 97.29664494327781%

----------------------------------------------------

[57, 100] loss: 0.001

[57, 200] loss: 0.001

EPOCH : 57

Training loss : 0.0794247483505076

Training accuracy : 99.02848177649047%

Validation loss : 0.13978739542112872

Validation accuracy: 97.17595944967415%

----------------------------------------------------

[58, 100] loss: 0.000

[58, 200] loss: 0.001

EPOCH : 58

Training loss : 0.058917978694408436

Training accuracy : 99.52932657494569%

Validation loss : 0.11710994576820855

Validation accuracy: 97.9242095100169%

----------------------------------------------------

[59, 100] loss: 0.001

[59, 200] loss: 0.001

EPOCH : 59

Training loss : 0.06961916557205435

Training accuracy : 99.3060584117789%

Validation loss : 0.15298756383738885

Validation accuracy: 97.39319333816076%

----------------------------------------------------

[60, 100] loss: 0.000

[60, 200] loss: 0.001

EPOCH : 60

Training loss : 0.07565031668399227

Training accuracy : 99.1612358194545%

Validation loss : 0.14814261851493732

Validation accuracy: 97.12768525223268%

----------------------------------------------------

[61, 100] loss: 0.001

[61, 200] loss: 0.001

EPOCH : 61

Training loss : 0.06797202895754005

Training accuracy : 99.37846970794111%

Validation loss : 0.1438861262127883

Validation accuracy: 96.91045136374608%

----------------------------------------------------

[62, 100] loss: 0.001

[62, 200] loss: 0.001

EPOCH : 62

Training loss : 0.06031082155133053

Training accuracy : 99.57760077238716%

Validation loss : 0.1310263489744613

Validation accuracy: 97.68283852280956%

----------------------------------------------------

[63, 100] loss: 0.001

[63, 200] loss: 0.001

EPOCH : 63

Training loss : 0.07944371682015589

Training accuracy : 99.10089307265267%

Validation loss : 0.14092004854495532

Validation accuracy: 97.44146753560221%

----------------------------------------------------

[64, 100] loss: 0.001

[64, 200] loss: 0.001

EPOCH : 64

Training loss : 0.06375418741893515

Training accuracy : 99.46294955346367%

Validation loss : 0.1498789919075861

Validation accuracy: 97.41733043688149%

----------------------------------------------------

[65, 100] loss: 0.001

[65, 200] loss: 0.000

EPOCH : 65

Training loss : 0.06783490219238211

Training accuracy : 99.40864108134203%

Validation loss : 0.15567856901888394

Validation accuracy: 96.95872556118755%

----------------------------------------------------

[66, 100] loss: 0.001

[66, 200] loss: 0.001

EPOCH : 66

Training loss : 0.0671672906214967

Training accuracy : 99.34226405986%

Validation loss : 0.1504877643138638

Validation accuracy: 97.41733043688149%

----------------------------------------------------

[67, 100] loss: 0.001

[67, 200] loss: 0.001

EPOCH : 67

Training loss : 0.07871966975741763

Training accuracy : 99.13106444605359%

Validation loss : 0.12158286102491964

Validation accuracy: 97.82766111513396%

----------------------------------------------------

[68, 100] loss: 0.000

[68, 200] loss: 0.001

EPOCH : 68

Training loss : 0.058093781139492096

Training accuracy : 99.58966932174752%

Validation loss : 0.11187192676092098

Validation accuracy: 98.09316920106203%

----------------------------------------------------

[69, 100] loss: 0.000

[69, 200] loss: 0.001

EPOCH : 69

Training loss : 0.06549994489607419

Training accuracy : 99.42674390538258%

Validation loss : 0.13952907507700993

Validation accuracy: 97.20009654839488%

----------------------------------------------------

[70, 100] loss: 0.001

[70, 200] loss: 0.001

EPOCH : 70

Training loss : 0.06788786744369334

Training accuracy : 99.36036688390055%

Validation loss : 0.1166396107674796

Validation accuracy: 97.85179821385469%

----------------------------------------------------

[71, 100] loss: 0.001

[71, 200] loss: 0.001

EPOCH : 71

Training loss : 0.07163731975023682

Training accuracy : 99.34226405986%

Validation loss : 0.14360688004895394

Validation accuracy: 97.39319333816076%

----------------------------------------------------

[72, 100] loss: 0.001

[72, 200] loss: 0.000

EPOCH : 72

Training loss : 0.07233930265676161

Training accuracy : 99.30002413709872%

Validation loss : 0.13810664882931536

Validation accuracy: 97.27250784455708%

----------------------------------------------------

[73, 100] loss: 0.001

[73, 200] loss: 0.000

EPOCH : 73

Training loss : 0.06629165016508551

Training accuracy : 99.38450398262128%

Validation loss : 0.1170972223417672

Validation accuracy: 97.68283852280956%

----------------------------------------------------

[74, 100] loss: 0.000

[74, 200] loss: 0.001

EPOCH : 74

Training loss : 0.05785022401562239

Training accuracy : 99.637943519189%

Validation loss : 0.15007459953330204

Validation accuracy: 97.41733043688149%

----------------------------------------------------

[75, 100] loss: 0.001

[75, 200] loss: 0.000

EPOCH : 75

Training loss : 0.07140519450374366

Training accuracy : 99.27588703837799%

Validation loss : 0.1290880489142195

Validation accuracy: 97.58629012792662%

----------------------------------------------------

[76, 100] loss: 0.001

[76, 200] loss: 0.001

EPOCH : 76

Training loss : 0.07480320555991721

Training accuracy : 99.16727009413468%

Validation loss : 0.12771354790848002

Validation accuracy: 97.48974173304369%

----------------------------------------------------

[77, 100] loss: 0.001

[77, 200] loss: 0.001

EPOCH : 77

Training loss : 0.06576614250545193

Training accuracy : 99.40864108134203%

Validation loss : 0.1255098141940239

Validation accuracy: 97.63456432536809%

----------------------------------------------------

[78, 100] loss: 0.000

[78, 200] loss: 0.000

EPOCH : 78

Training loss : 0.05879514985777404

Training accuracy : 99.67414916727009%

Validation loss : 0.131252372492174

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[79, 100] loss: 0.001

[79, 200] loss: 0.001

EPOCH : 79

Training loss : 0.06566326022004264

Training accuracy : 99.50518947622496%

Validation loss : 0.11053327912154072

Validation accuracy: 97.90007241129616%

----------------------------------------------------

[80, 100] loss: 0.001

[80, 200] loss: 0.001

EPOCH : 80

Training loss : 0.0731023902942557

Training accuracy : 99.20951001689598%

Validation loss : 0.12789478792305187

Validation accuracy: 97.46560463432296%

----------------------------------------------------

[81, 100] loss: 0.001

[81, 200] loss: 0.001

EPOCH : 81

Training loss : 0.07365622127398529

Training accuracy : 99.21554429157615%

Validation loss : 0.1371067446727785

Validation accuracy: 97.10354815351195%

----------------------------------------------------

[82, 100] loss: 0.000

[82, 200] loss: 0.000

EPOCH : 82

Training loss : 0.05516632980636258

Training accuracy : 99.66208061790972%

Validation loss : 0.11982076524278262

Validation accuracy: 97.77938691769249%

----------------------------------------------------

[83, 100] loss: 0.001

[83, 200] loss: 0.000

EPOCH : 83

Training loss : 0.06151819726910362

Training accuracy : 99.55346367366643%

Validation loss : 0.16466768686247138

Validation accuracy: 97.00699975862901%

----------------------------------------------------

[84, 100] loss: 0.000

[84, 200] loss: 0.001

EPOCH : 84

Training loss : 0.0831486005700213

Training accuracy : 99.00434467776974%

Validation loss : 0.14282641052883258

Validation accuracy: 97.17595944967415%

----------------------------------------------------

[85, 100] loss: 0.001

[85, 200] loss: 0.000

EPOCH : 85

Training loss : 0.059862130834317975

Training accuracy : 99.52329230026551%

Validation loss : 0.1346506692636367

Validation accuracy: 97.65870142408882%

----------------------------------------------------

[86, 100] loss: 0.001

[86, 200] loss: 0.001

EPOCH : 86

Training loss : 0.06251887184768491

Training accuracy : 99.46898382814386%

Validation loss : 0.12402170705185286

Validation accuracy: 98.02075790489982%

----------------------------------------------------

[87, 100] loss: 0.000

[87, 200] loss: 0.001

EPOCH : 87

Training loss : 0.06218216239672308

Training accuracy : 99.53536084962587%

Validation loss : 0.11634940753488358

Validation accuracy: 97.87593531257542%

----------------------------------------------------

[88, 100] loss: 0.001

[88, 200] loss: 0.001

EPOCH : 88

Training loss : 0.0749651390214833

Training accuracy : 99.1612358194545%

Validation loss : 0.15695933935408024

Validation accuracy: 97.07941105479121%

----------------------------------------------------

[89, 100] loss: 0.001

[89, 200] loss: 0.001

EPOCH : 89

Training loss : 0.07488423874347704

Training accuracy : 99.13106444605359%

Validation loss : 0.12222646510229863

Validation accuracy: 97.46560463432296%

----------------------------------------------------

[90, 100] loss: 0.000

[90, 200] loss: 0.000

EPOCH : 90

Training loss : 0.06223993279955222

Training accuracy : 99.47501810282404%

Validation loss : 0.12182498196890294

Validation accuracy: 98.02075790489982%

----------------------------------------------------

[91, 100] loss: 0.001

[91, 200] loss: 0.001

EPOCH : 91

Training loss : 0.05997426914702629

Training accuracy : 99.59570359642771%

Validation loss : 0.11796002085301543

Validation accuracy: 98.0690321023413%

----------------------------------------------------

[92, 100] loss: 0.000

[92, 200] loss: 0.001

EPOCH : 92

Training loss : 0.07383213723997778

Training accuracy : 99.22157856625634%

Validation loss : 0.13825951358013444

Validation accuracy: 97.41733043688149%

----------------------------------------------------

[93, 100] loss: 0.000

[93, 200] loss: 0.001

EPOCH : 93

Training loss : 0.0645948118082199

Training accuracy : 99.47501810282404%

Validation loss : 0.1270801163571427

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[94, 100] loss: 0.000

[94, 200] loss: 0.000

EPOCH : 94

Training loss : 0.06105815560064424

Training accuracy : 99.58966932174752%

Validation loss : 0.14096700699180328

Validation accuracy: 97.70697562153029%

----------------------------------------------------

[95, 100] loss: 0.001

[95, 200] loss: 0.001

EPOCH : 95

Training loss : 0.06403287369043045

Training accuracy : 99.49312092686459%

Validation loss : 0.12323571563543918

Validation accuracy: 97.80352401641322%

----------------------------------------------------

[96, 100] loss: 0.000

[96, 200] loss: 0.001

EPOCH : 96

Training loss : 0.06253211062483358

Training accuracy : 99.49915520154478%

Validation loss : 0.13558912841185491

Validation accuracy: 97.56215302920589%

----------------------------------------------------

[97, 100] loss: 0.001

[97, 200] loss: 0.001

EPOCH : 97

Training loss : 0.07197071881994026

Training accuracy : 99.20951001689598%

Validation loss : 0.14659907010451567

Validation accuracy: 97.12768525223268%

----------------------------------------------------

[98, 100] loss: 0.001

[98, 200] loss: 0.001

EPOCH : 98

Training loss : 0.06858403991162418

Training accuracy : 99.32416123581946%

Validation loss : 0.14335073700798268

Validation accuracy: 97.46560463432296%

----------------------------------------------------

[99, 100] loss: 0.000

[99, 200] loss: 0.000

EPOCH : 99

Training loss : 0.05850832360308152

Training accuracy : 99.56553222302679%

Validation loss : 0.10922858722538525

Validation accuracy: 98.0690321023413%

----------------------------------------------------

[100, 100] loss: 0.001

[100, 200] loss: 0.001

EPOCH : 100

Training loss : 0.05636617055038252

Training accuracy : 99.7103548153512%

Validation loss : 0.13767793389757044

Validation accuracy: 97.65870142408882%

----------------------------------------------------

[101, 100] loss: 0.001

[101, 200] loss: 0.002

EPOCH : 101

Training loss : 0.07764251827618192

Training accuracy : 99.0526188752112%

Validation loss : 0.14273069746794115

Validation accuracy: 97.12768525223268%

----------------------------------------------------

[102, 100] loss: 0.000

[102, 200] loss: 0.000

EPOCH : 102

Training loss : 0.0657198088715222

Training accuracy : 99.34829833454019%

Validation loss : 0.14331459141629288

Validation accuracy: 97.07941105479121%

----------------------------------------------------

[103, 100] loss: 0.001

[103, 200] loss: 0.000

EPOCH : 103

Training loss : 0.06342207575488891

Training accuracy : 99.53536084962587%

Validation loss : 0.1279922980143487

Validation accuracy: 97.32078204199856%

----------------------------------------------------

[104, 100] loss: 0.001

[104, 200] loss: 0.000

EPOCH : 104

Training loss : 0.05495897354839103

Training accuracy : 99.68018344195028%

Validation loss : 0.12802607254103823

Validation accuracy: 97.65870142408882%

----------------------------------------------------

[105, 100] loss: 0.000

[105, 200] loss: 0.001

EPOCH : 105

Training loss : 0.07294940050748014

Training accuracy : 99.25174993965726%

Validation loss : 0.1406435113640301

Validation accuracy: 97.15182235095341%

----------------------------------------------------

[106, 100] loss: 0.001

[106, 200] loss: 0.001

EPOCH : 106

Training loss : 0.06767769425121908

Training accuracy : 99.3060584117789%

Validation loss : 0.13023311056550965

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[107, 100] loss: 0.000

[107, 200] loss: 0.000

EPOCH : 107

Training loss : 0.054657918112651464

Training accuracy : 99.72845763939175%

Validation loss : 0.1198561637838365

Validation accuracy: 97.82766111513396%

----------------------------------------------------

[108, 100] loss: 0.000

[108, 200] loss: 0.001

EPOCH : 108

Training loss : 0.0730317629911518

Training accuracy : 99.22157856625634%

Validation loss : 0.13409188712762515

Validation accuracy: 97.51387883176442%

----------------------------------------------------

[109, 100] loss: 0.000

[109, 200] loss: 0.000

EPOCH : 109

Training loss : 0.06284941944729554

Training accuracy : 99.4870866521844%

Validation loss : 0.11753311477765178

Validation accuracy: 97.97248370745837%

----------------------------------------------------

[110, 100] loss: 0.001

[110, 200] loss: 0.000

EPOCH : 110

Training loss : 0.05944362764711861

Training accuracy : 99.60173787110789%

Validation loss : 0.13277614879170796

Validation accuracy: 97.90007241129616%

----------------------------------------------------

[111, 100] loss: 0.000

[111, 200] loss: 0.001

EPOCH : 111

Training loss : 0.06936953805392415

Training accuracy : 99.2698527636978%

Validation loss : 0.12880466653619904

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[112, 100] loss: 0.001

[112, 200] loss: 0.001

EPOCH : 112

Training loss : 0.06673532041005975

Training accuracy : 99.36036688390055%

Validation loss : 0.15466087082575808

Validation accuracy: 97.10354815351195%

----------------------------------------------------

[113, 100] loss: 0.002

[113, 200] loss: 0.001

EPOCH : 113

Training loss : 0.0676324620443699

Training accuracy : 99.39053825730147%

Validation loss : 0.1219233523927505

Validation accuracy: 97.75524981897176%

----------------------------------------------------

[114, 100] loss: 0.000

[114, 200] loss: 0.001

EPOCH : 114

Training loss : 0.057132979032644006

Training accuracy : 99.64397779386918%

Validation loss : 0.12607379901130045

Validation accuracy: 97.58629012792662%

----------------------------------------------------

[115, 100] loss: 0.001

[115, 200] loss: 0.001

EPOCH : 115

Training loss : 0.06567886651583751

Training accuracy : 99.43881245474294%

Validation loss : 0.13031779145837666

Validation accuracy: 97.61042722664736%

----------------------------------------------------

[116, 100] loss: 0.000

[116, 200] loss: 0.001

EPOCH : 116

Training loss : 0.06636200930483525

Training accuracy : 99.38450398262128%

Validation loss : 0.14031917030846414

Validation accuracy: 97.22423364711561%

----------------------------------------------------

[117, 100] loss: 0.000

[117, 200] loss: 0.001

EPOCH : 117

Training loss : 0.06198924475610472

Training accuracy : 99.45691527878348%

Validation loss : 0.133086536922174

Validation accuracy: 97.39319333816076%

----------------------------------------------------

[118, 100] loss: 0.001

[118, 200] loss: 0.000

EPOCH : 118

Training loss : 0.058937935899082604

Training accuracy : 99.60173787110789%

Validation loss : 0.12269226733020559

Validation accuracy: 97.87593531257542%

----------------------------------------------------

[119, 100] loss: 0.001

[119, 200] loss: 0.002

EPOCH : 119

Training loss : 0.07262165918892316

Training accuracy : 99.32416123581946%

Validation loss : 0.1381601131742138

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[120, 100] loss: 0.001

[120, 200] loss: 0.001

EPOCH : 120

Training loss : 0.06363434620217773

Training accuracy : 99.46294955346367%

Validation loss : 0.12846125199430494

Validation accuracy: 97.39319333816076%

----------------------------------------------------

[121, 100] loss: 0.000

[121, 200] loss: 0.001

EPOCH : 121

Training loss : 0.061112890612120906

Training accuracy : 99.52932657494569%

Validation loss : 0.1576359353144906

Validation accuracy: 96.98286265990828%

----------------------------------------------------

[122, 100] loss: 0.001

[122, 200] loss: 0.001

EPOCH : 122

Training loss : 0.06334274093684096

Training accuracy : 99.47501810282404%

Validation loss : 0.11949181044530442

Validation accuracy: 97.77938691769249%

----------------------------------------------------

[123, 100] loss: 0.000

[123, 200] loss: 0.000

EPOCH : 123

Training loss : 0.06395853513857606

Training accuracy : 99.43881245474294%

Validation loss : 0.1355899478858029

Validation accuracy: 97.56215302920589%

----------------------------------------------------

[124, 100] loss: 0.000

[124, 200] loss: 0.000

EPOCH : 124

Training loss : 0.06651656081099283

Training accuracy : 99.37846970794111%

Validation loss : 0.13506546907887607

Validation accuracy: 97.36905623944001%

----------------------------------------------------

[125, 100] loss: 0.001

[125, 200] loss: 0.001

EPOCH : 125

Training loss : 0.062115876722991854

Training accuracy : 99.55346367366643%

Validation loss : 0.13358369404182555

Validation accuracy: 97.46560463432296%

----------------------------------------------------

[126, 100] loss: 0.001

[126, 200] loss: 0.001

EPOCH : 126

Training loss : 0.06492761805412593

Training accuracy : 99.40864108134203%

Validation loss : 0.12309856320417305

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[127, 100] loss: 0.001

[127, 200] loss: 0.001

EPOCH : 127

Training loss : 0.06225923327412146

Training accuracy : 99.51725802558532%

Validation loss : 0.16095721977734778

Validation accuracy: 96.83804006758388%

----------------------------------------------------

[128, 100] loss: 0.001

[128, 200] loss: 0.001

EPOCH : 128

Training loss : 0.07058476481695496

Training accuracy : 99.28795558773835%

Validation loss : 0.13514429994058758

Validation accuracy: 97.53801593048516%

----------------------------------------------------

[129, 100] loss: 0.001

[129, 200] loss: 0.000

EPOCH : 129

Training loss : 0.0660981700209181

Training accuracy : 99.42674390538258%

Validation loss : 0.1241342517853704

Validation accuracy: 97.58629012792662%

----------------------------------------------------

[130, 100] loss: 0.000

[130, 200] loss: 0.000

EPOCH : 130

Training loss : 0.052918945091403165

Training accuracy : 99.68018344195028%

Validation loss : 0.13486300560980927

Validation accuracy: 97.56215302920589%

----------------------------------------------------

[131, 100] loss: 0.000

[131, 200] loss: 0.000

EPOCH : 131

Training loss : 0.054667750267829406

Training accuracy : 99.75259473811248%

Validation loss : 0.12743432217394704

Validation accuracy: 97.9242095100169%

----------------------------------------------------

[132, 100] loss: 0.001

[132, 200] loss: 0.001

EPOCH : 132

Training loss : 0.08011494631241291

Training accuracy : 99.10089307265267%

Validation loss : 0.132849327297335

Validation accuracy: 97.34491914071928%

----------------------------------------------------

[133, 100] loss: 0.001

[133, 200] loss: 0.001

EPOCH : 133

Training loss : 0.06802056387746619

Training accuracy : 99.35433260922038%

Validation loss : 0.1515367726269132

Validation accuracy: 96.88631426502535%

----------------------------------------------------

[134, 100] loss: 0.000

[134, 200] loss: 0.001

EPOCH : 134

Training loss : 0.06136932748974794

Training accuracy : 99.51725802558532%

Validation loss : 0.13616089293728292

Validation accuracy: 97.51387883176442%

----------------------------------------------------

[135, 100] loss: 0.000

[135, 200] loss: 0.000

EPOCH : 135

Training loss : 0.05302998244460297

Training accuracy : 99.74052618875211%

Validation loss : 0.13734960084142186

Validation accuracy: 97.58629012792662%

----------------------------------------------------

[136, 100] loss: 0.000

[136, 200] loss: 0.001

EPOCH : 136

Training loss : 0.07303835331113218

Training accuracy : 99.3060584117789%

Validation loss : 0.13508219866254265

Validation accuracy: 97.36905623944001%

----------------------------------------------------

[137, 100] loss: 0.001

[137, 200] loss: 0.001

EPOCH : 137

Training loss : 0.06723625087202847

Training accuracy : 99.28795558773835%

Validation loss : 0.12174517723376296

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[138, 100] loss: 0.001

[138, 200] loss: 0.001

EPOCH : 138

Training loss : 0.06302485912282946

Training accuracy : 99.49915520154478%

Validation loss : 0.15991732661573893

Validation accuracy: 96.59666908037654%

----------------------------------------------------

[139, 100] loss: 0.001

[139, 200] loss: 0.000

EPOCH : 139

Training loss : 0.05060655397261625

Training accuracy : 99.81293748491431%

Validation loss : 0.11682131205265746

Validation accuracy: 97.90007241129616%

----------------------------------------------------

[140, 100] loss: 0.001

[140, 200] loss: 0.001

EPOCH : 140

Training loss : 0.05823166527064445

Training accuracy : 99.66208061790972%

Validation loss : 0.1290983347509496

Validation accuracy: 97.58629012792662%

----------------------------------------------------

[141, 100] loss: 0.001

[141, 200] loss: 0.001

EPOCH : 141

Training loss : 0.08572057655632798

Training accuracy : 98.83538498672459%

Validation loss : 0.11760338987672268

Validation accuracy: 97.90007241129616%

----------------------------------------------------

[142, 100] loss: 0.001

[142, 200] loss: 0.001

EPOCH : 142

Training loss : 0.0574444264871269

Training accuracy : 99.58966932174752%

Validation loss : 0.1089470684600285

Validation accuracy: 98.16558049722424%

----------------------------------------------------

[143, 100] loss: 0.001

[143, 200] loss: 0.000

EPOCH : 143

Training loss : 0.051047694257224725

Training accuracy : 99.80086893555395%

Validation loss : 0.1070589770621618

Validation accuracy: 98.16558049722424%

----------------------------------------------------

[144, 100] loss: 0.001

[144, 200] loss: 0.001

EPOCH : 144

Training loss : 0.06570217109750844

Training accuracy : 99.39053825730147%

Validation loss : 0.12732001959975434

Validation accuracy: 97.82766111513396%

----------------------------------------------------

[145, 100] loss: 0.001

[145, 200] loss: 0.001

EPOCH : 145

Training loss : 0.06267996520458602

Training accuracy : 99.38450398262128%

Validation loss : 0.12755371662202505

Validation accuracy: 97.82766111513396%

----------------------------------------------------

[146, 100] loss: 0.000

[146, 200] loss: 0.000

EPOCH : 146

Training loss : 0.07344998395186877

Training accuracy : 99.28795558773835%

Validation loss : 0.11938785085233836

Validation accuracy: 97.90007241129616%

----------------------------------------------------

[147, 100] loss: 0.001

[147, 200] loss: 0.000

EPOCH : 147

Training loss : 0.06485385181763999

Training accuracy : 99.36036688390055%

Validation loss : 0.11766360636468731

Validation accuracy: 98.0690321023413%

----------------------------------------------------

[148, 100] loss: 0.001

[148, 200] loss: 0.001

EPOCH : 148

Training loss : 0.059426965746302955

Training accuracy : 99.62587496982863%

Validation loss : 0.12773068573289006

Validation accuracy: 97.39319333816076%

----------------------------------------------------

[149, 100] loss: 0.000

[149, 200] loss: 0.001

EPOCH : 149

Training loss : 0.05725683984392771

Training accuracy : 99.58966932174752%

Validation loss : 0.11574503237747093

Validation accuracy: 97.77938691769249%

----------------------------------------------------

[150, 100] loss: 0.000

[150, 200] loss: 0.001

EPOCH : 150

Training loss : 0.060214364180494674

Training accuracy : 99.5594979483466%

Validation loss : 0.18138949858978293

Validation accuracy: 96.4277093893314%

----------------------------------------------------

[151, 100] loss: 0.001

[151, 200] loss: 0.001

EPOCH : 151

Training loss : 0.07077868762236127

Training accuracy : 99.33019551049964%

Validation loss : 0.1367014613440438

Validation accuracy: 97.65870142408882%

----------------------------------------------------

[152, 100] loss: 0.001

[152, 200] loss: 0.001

EPOCH : 152

Training loss : 0.06527994515209304

Training accuracy : 99.42674390538258%

Validation loss : 0.12063489200813944

Validation accuracy: 97.9242095100169%

----------------------------------------------------

[153, 100] loss: 0.000

[153, 200] loss: 0.001

EPOCH : 153

Training loss : 0.058753177778979246

Training accuracy : 99.50518947622496%

Validation loss : 0.11136628256136456

Validation accuracy: 98.1414433985035%

----------------------------------------------------

[154, 100] loss: 0.000

[154, 200] loss: 0.000

EPOCH : 154

Training loss : 0.05647380545379285

Training accuracy : 99.7103548153512%

Validation loss : 0.12420024389579565

Validation accuracy: 97.9242095100169%

----------------------------------------------------

[155, 100] loss: 0.001

[155, 200] loss: 0.001

EPOCH : 155

Training loss : 0.0772299666408177

Training accuracy : 99.09485879797248%

Validation loss : 0.11970333528783395

Validation accuracy: 97.73111272025102%

----------------------------------------------------

[156, 100] loss: 0.001

[156, 200] loss: 0.001

EPOCH : 156

Training loss : 0.056749227180476355

Training accuracy : 99.66208061790972%

Validation loss : 0.13596078298128142

Validation accuracy: 97.48974173304369%

----------------------------------------------------

GroundTruth: சூ உ ක්‍රි ஙு ஊ ඈ ச க එ ක්‍රී

Predicted : சூ உ කි ஙு ஊ ඈ ச க එ ක්‍රී

Accuracy of the network on the test images: 90.729141 %

Non-normalized Confusion Matrix

Confusion Matrix for Test Set

[[35 1 0 ... 0 0 0]

[ 0 41 0 ... 0 0 0]

[ 0 0 43 ... 0 0 0]

...

[ 0 0 1 ... 34 0 0]

[ 1 0 0 ... 0 44 0]

[11 6 0 ... 0 0 62]]

Classification report

precision recall f1-score support

0 0.83 0.95 0.88 60

1 0.85 0.98 0.91 48

2 0.96 0.84 0.90 63

3 0.90 0.81 0.85 54

4 0.80 0.80 0.80 56

5 0.67 0.88 0.76 43

6 0.74 0.91 0.82 44

7 0.91 0.62 0.74 69

8 0.71 0.86 0.78 81

9 0.95 0.76 0.84 71

10 1.00 0.74 0.85 89

11 0.65 0.85 0.74 111

12 0.95 0.92 0.93 118

13 0.90 0.81 0.85 118

14 0.90 0.80 0.85 91

15 0.80 0.79 0.79 110

16 0.92 0.74 0.82 109

17 0.62 0.76 0.68 96

18 0.83 0.55 0.66 104

19 0.85 0.91 0.88 96

20 0.88 0.85 0.86 124

21 0.81 0.84 0.82 134

22 0.98 0.65 0.78 122

23 0.50 0.97 0.66 37

24 0.75 0.88 0.81 43

25 0.73 0.94 0.82 49

26 0.83 0.80 0.82 50

27 0.58 0.78 0.67 50

28 0.85 0.93 0.89 57

29 0.51 0.93 0.66 41

30 0.91 0.45 0.60 64

31 0.99 0.95 0.97 180

32 0.98 1.00 0.99 180

33 0.98 0.99 0.99 180

34 0.90 0.97 0.93 180

35 0.99 0.98 0.99 180

36 0.98 1.00 0.99 180

37 1.00 0.96 0.98 180

38 0.94 0.98 0.96 180

39 0.94 0.98 0.96 180

40 0.98 0.98 0.98 180

41 0.81 0.79 0.80 180

42 0.85 0.77 0.81 180

43 0.98 0.99 0.98 180

44 0.99 0.99 0.99 180

45 0.96 0.97 0.96 180

46 0.94 0.93 0.94 180

47 0.98 0.87 0.92 180

48 0.95 0.94 0.94 180

49 0.93 0.95 0.94 180

50 0.99 0.99 0.99 180

51 0.98 0.90 0.94 180

52 0.99 0.91 0.95 180

53 0.88 0.97 0.92 180

54 0.91 0.96 0.93 180

55 0.91 0.99 0.95 180

56 0.99 0.98 0.98 180

57 0.95 0.96 0.95 180

58 0.95 0.94 0.95 180

59 0.99 0.97 0.98 180

60 0.96 0.97 0.96 180

61 0.99 0.98 0.99 180

accuracy 0.91 7982

macro avg 0.88 0.88 0.88 7982

weighted avg 0.92 0.91 0.91 7982

AUC ROC Curve plotting started!

AUC ROC Curve (0-4) - Done!

AUC ROC Curve (5-9) - Done!

AUC ROC Curve (10-14) - Done!

AUC ROC Curve (15-19) - Done!

AUC ROC Curve (20-24) - Done!

AUC ROC Curve (25-29) - Done!

AUC ROC Curve (30-34) - Done!

AUC ROC Curve (35-39) - Done!

AUC ROC Curve (40-44) - Done!

AUC ROC Curve (45-49) - Done!

AUC ROC Curve (50-54) - Done!

AUC ROC Curve (55-59) - Done!

Training completed! Trained model saved to: ../ds\_trained/SinhalaTamil\_CNN\_Trained.pt