10 epopchs and 16 batch size

-2 layers

Table

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Chart, line chart

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Graphical user interface, application

Description automatically generated

48 epochs

Table

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Chart, line chart

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Graphical user interface, application, Teams

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Increased batch size to 128 – with 48 epoch

Table

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Chart, line chart

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Graphical user interface, application

Description automatically generated

All 4 convolution layers

Text

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Chart, line chart

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Graphical user interface, application, Teams

Description automatically generated

Hands-Touch

Single resource- Samples

5 epochs;batch size 32

A picture containing text

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Chart, line chart

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Chart

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Batch size = 16

Text

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Chart, line chart

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Chart

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Added batch normalization

Text

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Chart, line chart

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Chart

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20 epochs – Using face\_detection dataset from sangeeta

Table

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Chart, line chart

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Chart, treemap chart

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20 epochs – Full Dataset

Table

Description automatically generated with medium confidence

822/822 [==============================] - ETA: 0s - loss: 1.1470 - accuracy: 0.4978WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 130s 156ms/step - loss: 1.1470 - accuracy: 0.4978 - val\_loss: 1.1156 - val\_accuracy: 0.3477

Epoch 2/20

822/822 [==============================] - ETA: 0s - loss: 0.6050 - accuracy: 0.7511WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 120s 145ms/step - loss: 0.6050 - accuracy: 0.7511 - val\_loss: 1.8820 - val\_accuracy: 0.3652

Epoch 3/20

822/822 [==============================] - ETA: 0s - loss: 0.3345 - accuracy: 0.8717WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 121s 147ms/step - loss: 0.3345 - accuracy: 0.8717 - val\_loss: 2.1416 - val\_accuracy: 0.4570

Epoch 4/20

822/822 [==============================] - ETA: 0s - loss: 0.1972 - accuracy: 0.9282WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 120s 146ms/step - loss: 0.1972 - accuracy: 0.9282 - val\_loss: 2.1771 - val\_accuracy: 0.4116

Epoch 5/20

822/822 [==============================] - ETA: 0s - loss: 0.1355 - accuracy: 0.9511WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.1355 - accuracy: 0.9511 - val\_loss: 2.4011 - val\_accuracy: 0.5308

Epoch 6/20

822/822 [==============================] - ETA: 0s - loss: 0.0978 - accuracy: 0.9661WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 120s 146ms/step - loss: 0.0978 - accuracy: 0.9661 - val\_loss: 2.4003 - val\_accuracy: 0.4639

Epoch 7/20

822/822 [==============================] - ETA: 0s - loss: 0.0862 - accuracy: 0.9683WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.0862 - accuracy: 0.9683 - val\_loss: 2.9203 - val\_accuracy: 0.3745

Epoch 8/20

822/822 [==============================] - ETA: 0s - loss: 0.0733 - accuracy: 0.9757WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 118s 144ms/step - loss: 0.0733 - accuracy: 0.9757 - val\_loss: 6.5793 - val\_accuracy: 0.3521

Epoch 9/20

822/822 [==============================] - ETA: 0s - loss: 0.0512 - accuracy: 0.9819WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 118s 144ms/step - loss: 0.0512 - accuracy: 0.9819 - val\_loss: 4.0531 - val\_accuracy: 0.3955

Epoch 10/20

822/822 [==============================] - ETA: 0s - loss: 0.0482 - accuracy: 0.9834WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 120s 145ms/step - loss: 0.0482 - accuracy: 0.9834 - val\_loss: 2.8996 - val\_accuracy: 0.3877

Epoch 11/20

822/822 [==============================] - ETA: 0s - loss: 0.0408 - accuracy: 0.9858WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.0408 - accuracy: 0.9858 - val\_loss: 3.4741 - val\_accuracy: 0.5015

Epoch 12/20

822/822 [==============================] - ETA: 0s - loss: 0.0390 - accuracy: 0.9865WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.0390 - accuracy: 0.9865 - val\_loss: 3.4995 - val\_accuracy: 0.3574

Epoch 13/20

822/822 [==============================] - ETA: 0s - loss: 0.0318 - accuracy: 0.9890WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.0318 - accuracy: 0.9890 - val\_loss: 3.5028 - val\_accuracy: 0.2896

Epoch 14/20

822/822 [==============================] - ETA: 0s - loss: 0.0348 - accuracy: 0.9889WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.0348 - accuracy: 0.9889 - val\_loss: 4.5385 - val\_accuracy: 0.3691

Epoch 15/20

822/822 [==============================] - ETA: 0s - loss: 0.0278 - accuracy: 0.9903WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 144ms/step - loss: 0.0278 - accuracy: 0.9903 - val\_loss: 4.9332 - val\_accuracy: 0.3779

Epoch 16/20

822/822 [==============================] - ETA: 0s - loss: 0.0198 - accuracy: 0.9941WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 120s 146ms/step - loss: 0.0198 - accuracy: 0.9941 - val\_loss: 4.9876 - val\_accuracy: 0.4219

Epoch 17/20

822/822 [==============================] - ETA: 0s - loss: 0.0221 - accuracy: 0.9924WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 119s 145ms/step - loss: 0.0221 - accuracy: 0.9924 - val\_loss: 3.0290 - val\_accuracy: 0.5229

Epoch 18/20

822/822 [==============================] - ETA: 0s - loss: 0.0199 - accuracy: 0.9935WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 123s 150ms/step - loss: 0.0199 - accuracy: 0.9935 - val\_loss: 4.5286 - val\_accuracy: 0.4399

Epoch 19/20

822/822 [==============================] - ETA: 0s - loss: 0.0140 - accuracy: 0.9949WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 123s 150ms/step - loss: 0.0140 - accuracy: 0.9949 - val\_loss: 4.8854 - val\_accuracy: 0.4033

Epoch 20/20

822/822 [==============================] - ETA: 0s - loss: 0.0164 - accuracy: 0.9955WARNING:tensorflow:Can save best model only with val\_acc available, skipping.

822/822 [==============================] - 120s 146ms/step - loss: 0.0164 - accuracy: 0.9955 - val\_loss: 5.3347 - val\_accuracy: 0.5010

Chart, line chart

Description automatically generated

Chart, treemap chart

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Table

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Chart, line chart, histogram

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Chart

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A collage of a person's face

Description automatically generated with medium confidence

A collage of a person's face

Description automatically generated with medium confidence