Model Performance Test

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| Date | 21 November 2022 |
| Team ID | PNT2022TMID16533 |
| Project Name | Project - Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies |
| Maximum Marks | 10 Marks |

Model Performance Testing:

| S.No. | Parameter | Values | Screenshot |
|---|---|---|---|

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|---|---|---|---|
| | Model Summary | | Model: "sequential_1"<br>_____<br>Layer (type) Output Shape Param #<br>=====<br>conv2d_13 (Conv2D) (None, 224, 224, 64) 1792<br>conv2d_14 (Conv2D) (None, 224, 224, 64) 36928<br>max_pooling2d_5 (MaxPooling 2D) (None, 112, 112, 64) 0<br>conv2d_15 (Conv2D) (None, 112, 112, 128) 73856<br>conv2d_16 (Conv2D) (None, 112, 112, 128) 147584<br>max_pooling2d_6 (MaxPooling 2D) (None, 56, 56, 128) 0<br>conv2d_17 (Conv2D) (None, 56, 56, 256) 295168<br>conv2d_18 (Conv2D) (None, 56, 56, 256) 590080<br>conv2d_19 (Conv2D) (None, 56, 56, 256) 590080<br>max_pooling2d_7 (MaxPooling 2D) (None, 28, 28, 256) 0<br>conv2d_20 (Conv2D) (None, 28, 28, 512) 1180160<br>conv2d_21 (Conv2D) (None, 28, 28, 512) 2359808<br>conv2d_22 (Conv2D) (None, 28, 28, 512) 2359808<br>max_pooling2d_8 (MaxPooling 2D) (None, 14, 14, 512) 0<br>conv2d_23 (Conv2D) (None, 14, 14, 512) 2359808<br>conv2d_24 (Conv2D) (None, 14, 14, 512) 2359808<br>conv2d_25 (Conv2D) (None, 14, 14, 512) 2359808<br>max_pooling2d_9 (MaxPooling 2D) (None, 7, 7, 512) 0<br>flatten_1 (Flatten) (None, 25088) 0<br>dense_3 (Dense) (None, 4096) 102764544<br>dense_4 (Dense) (None, 4096) 16781312<br>dense_5 (Dense) (None, 3) 12291<br>=====<br>Total params: 134,272,835<br>Trainable params: 134,272,835<br>Non-trainable params: 0<br>_____ |

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|---|---|---|---|
| 2 | Accuracy | Training Accuracy - 98.66%<br><br>Validation Accuracy - 73.53% | |

```
[33]
r = model.fit_generator(
    training_set,
    validation_data = test_set,
    epochs = 25,
    steps_per_epoch=979//10,
    validation_steps = 171//10
)
```

```
/tmp/wsuser/ipykernel_164/289406290.py:1: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future
  r = model.fit_generator(

Output exceeds the size limit. Open the full output data in a text editor
Epoch 1/25
97/97 [==============================] - 339s 3s/step - loss: 1.1511 - acc: 0.5459 - val_loss: 0.9324 - val_acc: 0.6294
Epoch 2/25
97/97 [==============================] - 328s 3s/step - loss: 0.6237 - acc: 0.7534 - val_loss: 0.7954 - val_acc: 0.6941
Epoch 3/25
97/97 [==============================] - 331s 3s/step - loss: 0.4937 - acc: 0.8070 - val_loss: 1.1732 - val_acc: 0.6176
Epoch 4/25
97/97 [==============================] - 326s 3s/step - loss: 0.4349 - acc: 0.8411 - val_loss: 0.9766 - val_acc: 0.6824
Epoch 5/25
97/97 [==============================] - 326s 3s/step - loss: 0.3661 - acc: 0.8617 - val_loss: 1.1987 - val_acc: 0.6529
Epoch 6/25
97/97 [==============================] - 325s 3s/step - loss: 0.2681 - acc: 0.8875 - val_loss: 0.9087 - val_acc: 0.6941
Epoch 7/25
97/97 [==============================] - 325s 3s/step - loss: 0.2292 - acc: 0.9195 - val_loss: 1.0251 - val_acc: 0.6647
Epoch 8/25
97/97 [==============================] - 326s 3s/step - loss: 0.1248 - acc: 0.9659 - val_loss: 1.0597 - val_acc: 0.6706
Epoch 9/25
97/97 [==============================] - 323s 3s/step - loss: 0.1315 - acc: 0.9639 - val_loss: 1.0529 - val_acc: 0.6647
Epoch 10/25
97/97 [==============================] - 322s 3s/step - loss: 0.0922 - acc: 0.9752 - val_loss: 0.9898 - val_acc: 0.6588
Epoch 11/25
97/97 [==============================] - 323s 3s/step - loss: 0.0913 - acc: 0.9825 - val_loss: 1.5796 - val_acc: 0.6529
Epoch 12/25
97/97 [==============================] - 322s 3s/step - loss: 0.1447 - acc: 0.9536 - val_loss: 1.1999 - val_acc: 0.6706
Epoch 13/25
...
Epoch 24/25
97/97 [==============================] - 327s 3s/step - loss: 0.0756 - acc: 0.9814 - val_loss: 1.5177 - val_acc: 0.6588
Epoch 25/25
97/97 [==============================] - 327s 3s/step - loss: 0.0480 - acc: 0.9866 - val_loss: 1.3861 - val_acc: 0.7353
```