EfficientNetB4

		5 Epochs	10 Epochs	15 Epochs
Training Accuracy		99.98%	100%	100.0%
Testing Accuracy		99.26%	99.75%	99.26%
Macro Avg.	**Precision**	99.83%	99.85%	99.53%
	Recall	99.22%	99.36%	98.26%
	F1 Score	99.35%	99.60%	99.88%
BFlops		47424472		
Inference Time		0.083 Second	0.091 Second	0.106 Second
Size of Model		71.3 MB		

Classification Report & Confusion Matrix

5 Epochs

For Training(EfficientNetB4)

	precision	recall	f1-score	support
0	1.00	1.00	1.00	853
1	1.00	1.00	1.00	1984
2	1.00	1.00	1.00	431
3	1.00	1.00	1.00	838
accuracy			1.00	4106
macro avg	1.00	1.00	1.00	4106
weighted avg	1.00	1.00	1.00	4106

```
[[ 853    0    0    0]
 [   0 1983    1    0]
 [   0    0  431    0]
 [   0    0    0  838]]
```

For Testing(EfficientNetB4)

	precision	recall	f1-score	support
0	0.98	1.00	0.99	143
1	1.00	0.99	0.99	171
2	1.00	1.00	1.00	38
3	1.00	0.98	0.99	51
accuracy			0.99	403
macro avg	0.99	0.99	0.99	403
weighted avg	0.99	0.99	0.99	403

```
[[143   0   0   0]
 [  2 169   0   0]
 [  0   0  38   0]
 [  1   0   0  50]]
```

10 Epochs

For Training(EfficientNetB4)

	precision	recall	f1-score	support
0	1.00	1.00	1.00	853
1	1.00	1.00	1.00	1983
2	1.00	1.00	1.00	432
3	1.00	1.00	1.00	838
accuracy			1.00	4106
macro avg	1.00	1.00	1.00	4106
weighted avg	1.00	1.00	1.00	4106

```
[[ 853    0    0    0]
 [   0 1983    0    0]
 [   0    0  432    0]
 [   0    0    0  838]]
```

For Testing(EfficientNetB4)

	precision	recall	f1-score	support
0	1.00	1.00	1.00	146
1	0.99	1.00	1.00	168
2	1.00	0.97	0.99	39
3	1.00	1.00	1.00	50
accuracy			1.00	403
macro avg	1.00	0.99	1.00	403
weighted avg	1.00	1.00	1.00	403

```
[[146   0   0   0]
 [  0 168   0   0]
 [  0   1  38   0]
 [  0   0   0  50]]
```

15 Epochs

For Training(EfficientNetB4)

	precision	recall	f1-score	support
0	1.00	1.00	1.00	853
1	1.00	1.00	1.00	1983
2	1.00	1.00	1.00	432
3	1.00	1.00	1.00	838
accuracy			1.00	4106
macro avg	1.00	1.00	1.00	4106
weighted avg	1.00	1.00	1.00	4106

```
[[ 853    0    0    0]
 [   0 1983    0    0]
 [   0    0  432    0]
 [   0    0    0  838]]
```

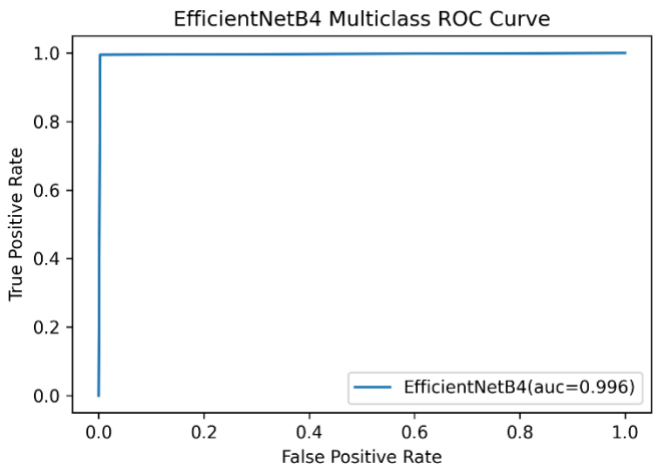
For Testing(EfficientNetB4)

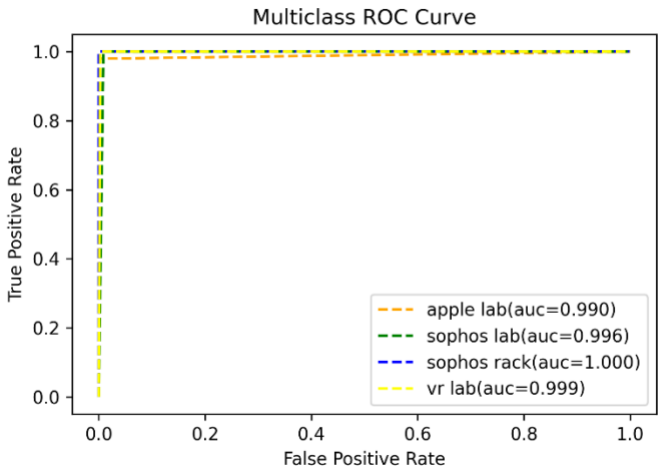
	precision	recall	f1-score	support
0	0.99	1.00	1.00	145
1	0.99	1.00	0.99	167
2	1.00	0.95	0.97	40
3	1.00	0.98	0.99	51
accuracy			0.99	403
macro avg	1.00	0.98	0.99	403
weighted avg	0.99	0.99	0.99	403

```
[[145   0   0   0]
 [  0 167   0   0]
 [  0   2  38   0]
 [  1   0   0  50]]
```

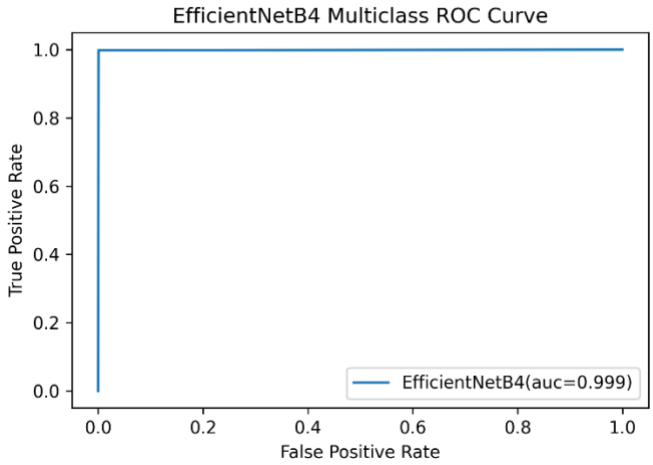
ROC Curve

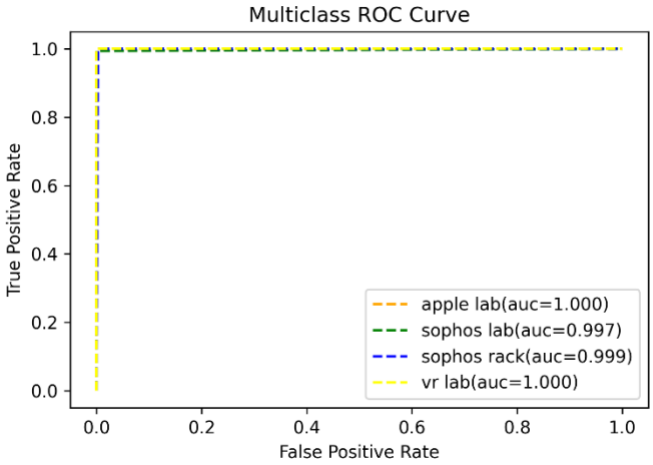
5 Epochs



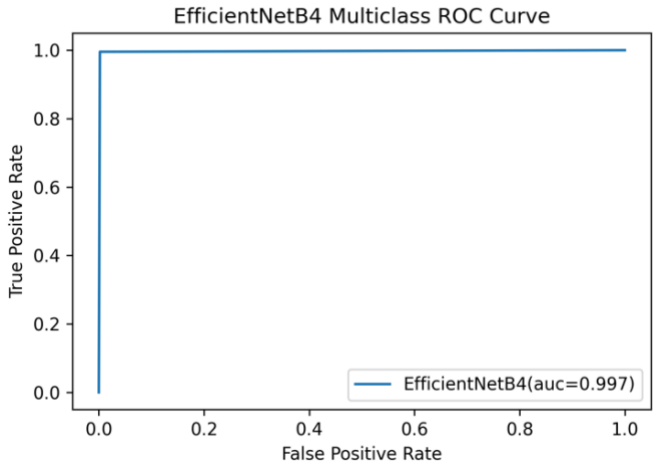


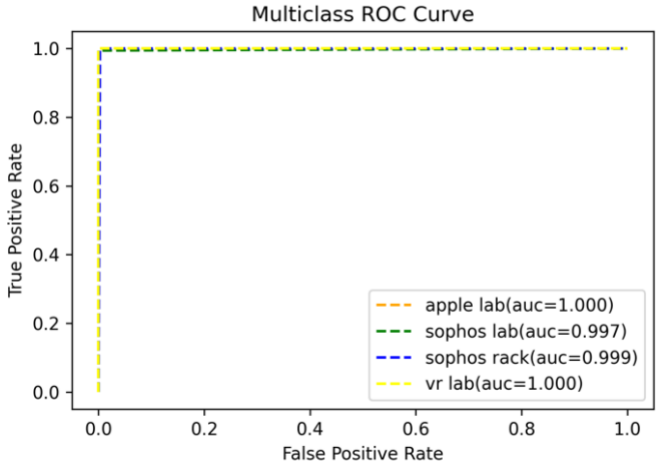
10 Epochs





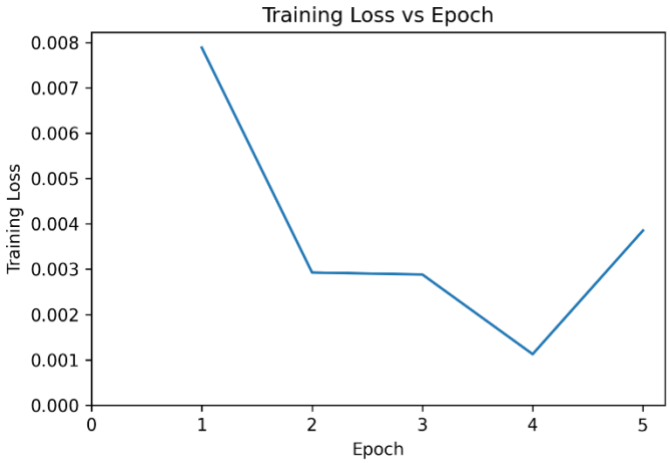
15 Epochs

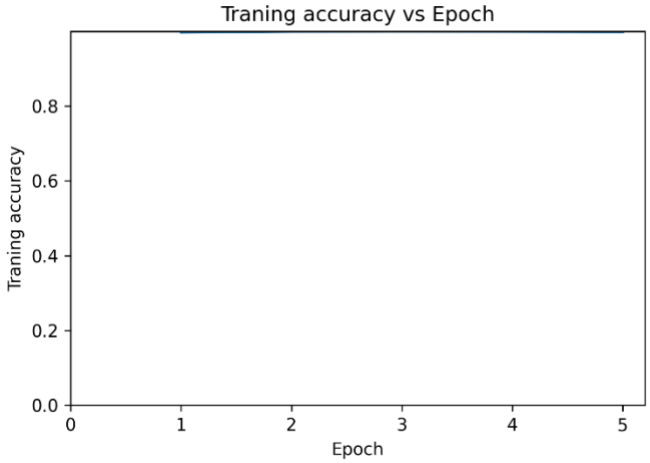


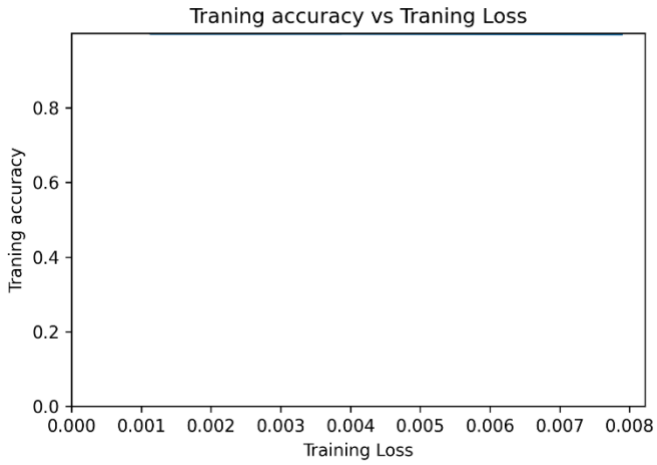


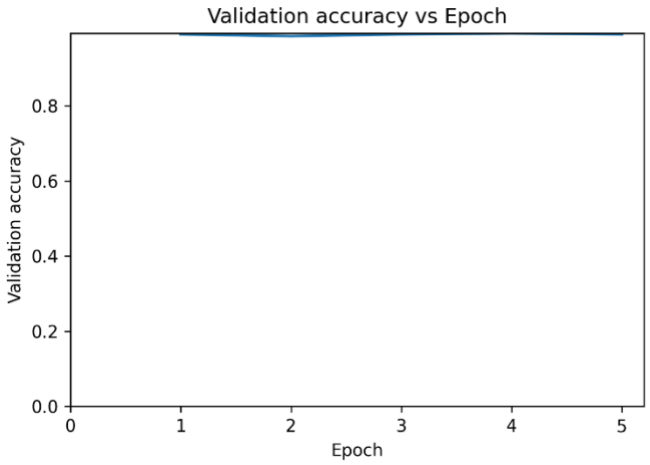
Graphs

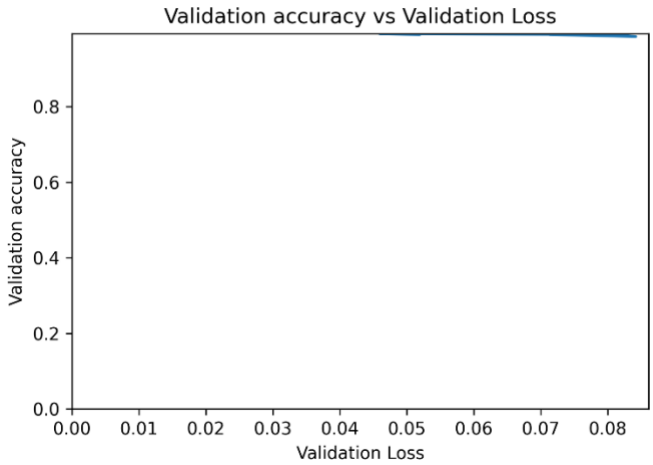
5 Epochs

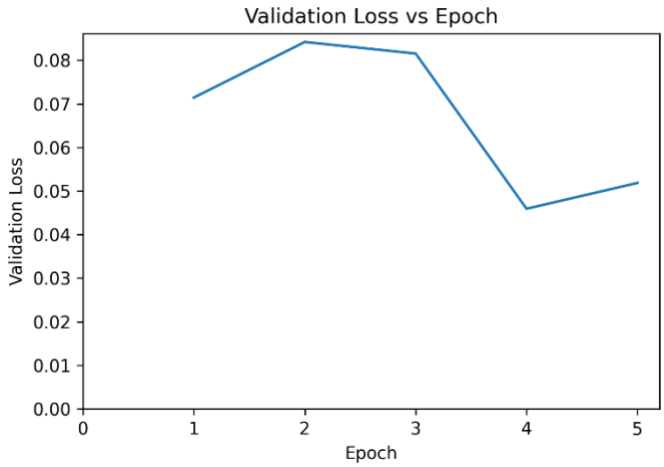




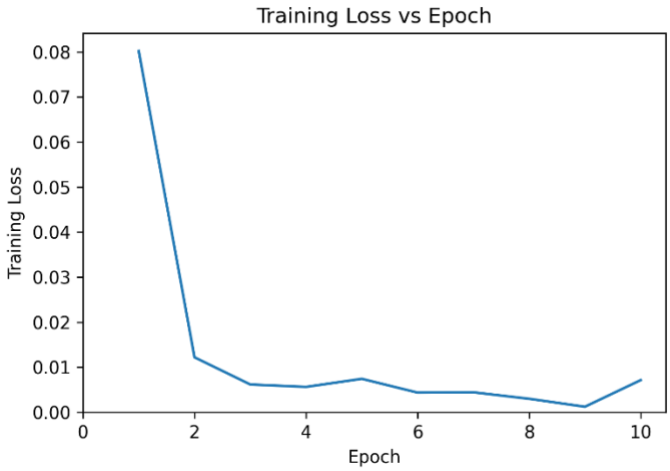


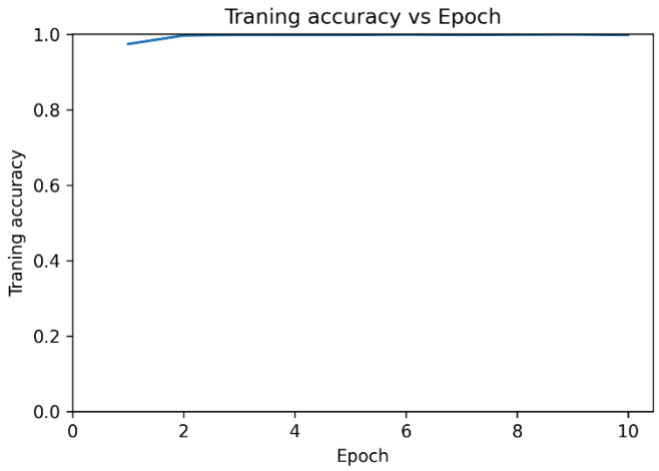


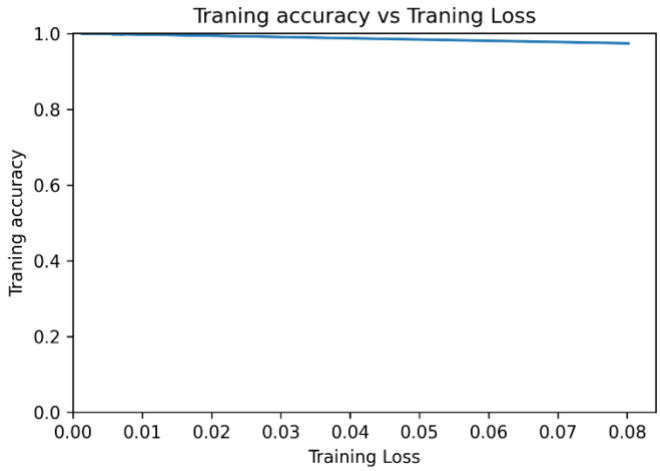


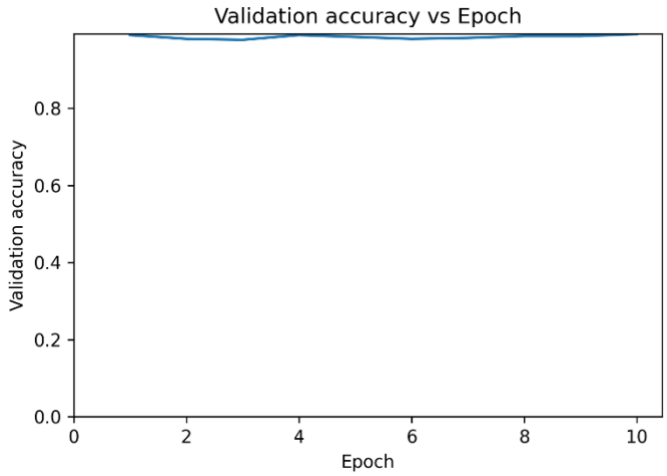


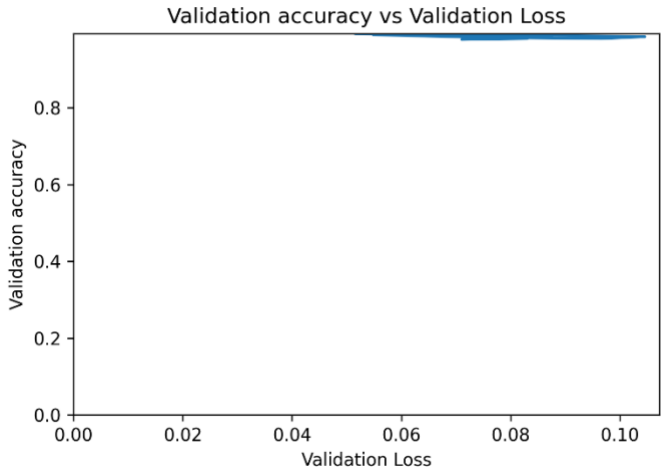
10 Epochs

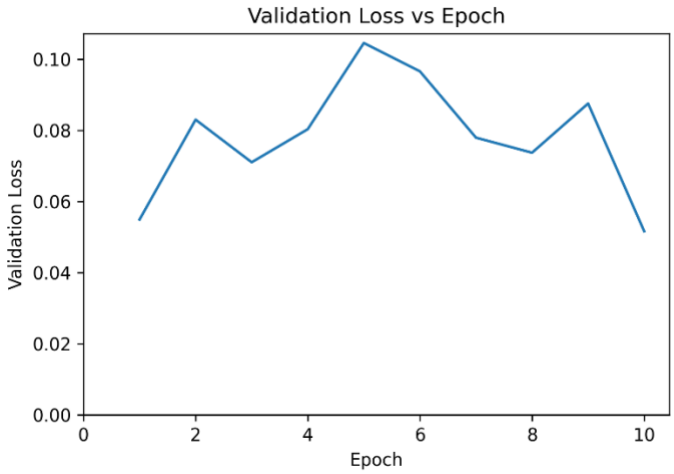

Training Loss vs Epoch
Training Loss
Epoch
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0
2
4
6
8
10


Traning accuracy vs Epoch
Traning accuracy
Epoch
1.0
0.8
0.6
0.4
0.2
0.0
0
2
4
6
8
10

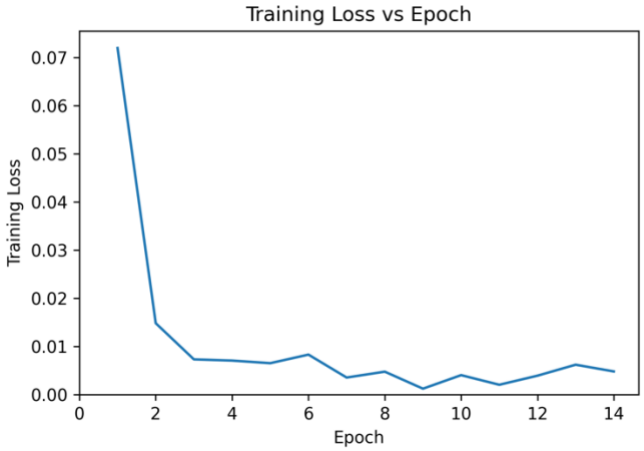

Traning accuracy vs Traning Loss
Traning accuracy
Training Loss
1.0
0.8
0.6
0.4
0.2
0.0
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08

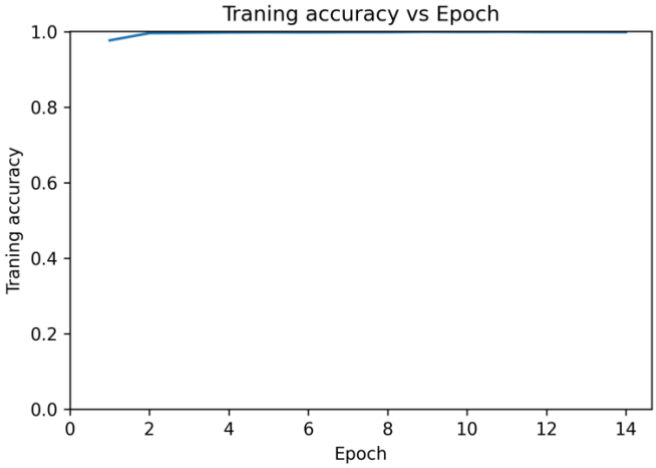

Validation accuracy vs Epoch
Validation accuracy
Epoch
1.0
0.8
0.6
0.4
0.2
0.0
0
2
4
6
8
10

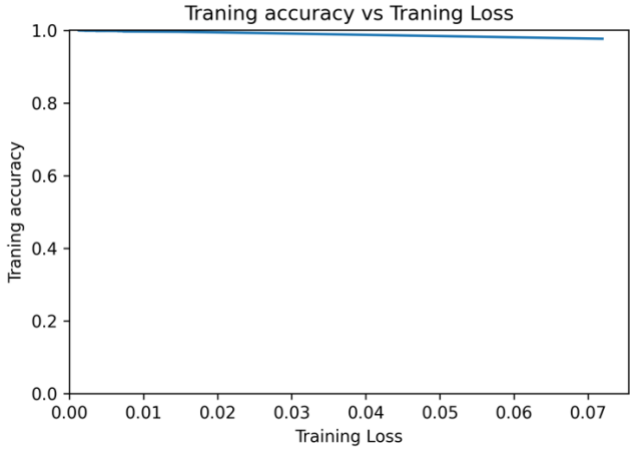

Validation accuracy vs Validation Loss
Validation accuracy
Validation Loss
1.0
0.8
0.6
0.4
0.2
0.0
0.00
0.02
0.04
0.06
0.08
0.10

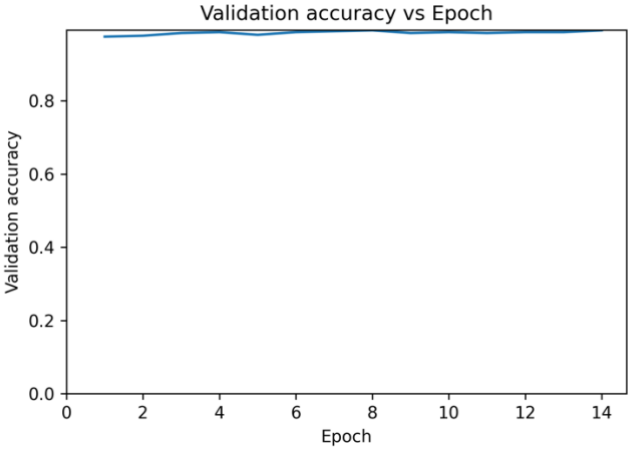

Validation Loss vs Epoch
Validation Loss
Epoch
0.10
0.08
0.06
0.04
0.02
0.00
0
2
4
6
8
10

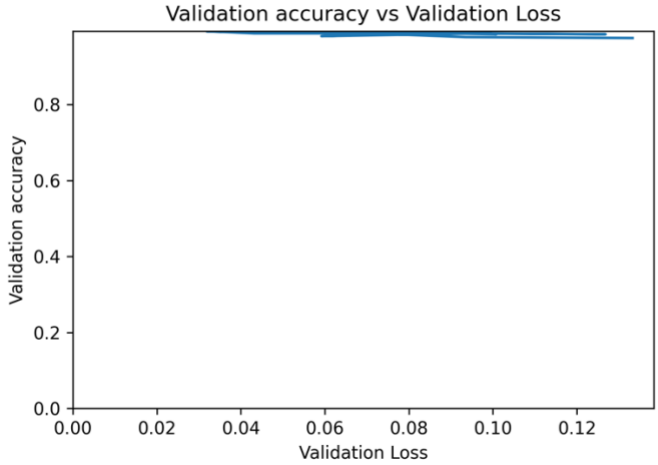
15 Epochs

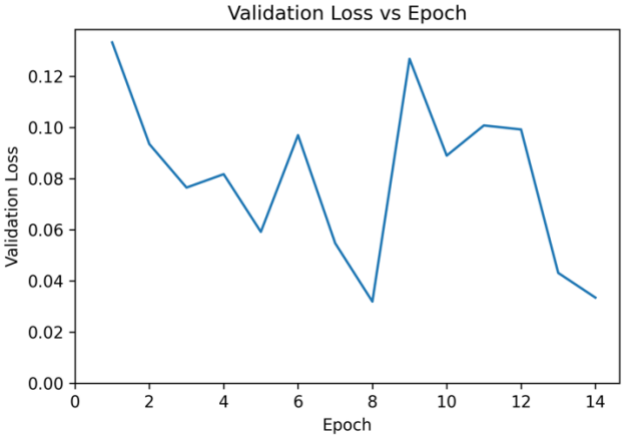

Training Loss vs Epoch
Training Loss
Epoch


Traning accuracy vs Epoch
Traning accuracy
Epoch


Traning accuracy vs Traning Loss
Traning accuracy
Training Loss


Validation accuracy vs Epoch
Validation accuracy
Epoch


Validation accuracy vs Validation Loss
Validation accuracy
Validation Loss


Validation Loss vs Epoch
Validation Loss
Epoch