```
Starting Run ...
Train Loader Created.
Valid Loader Created.
Test Loader Created.
Done Model Loading.
Num Train Steps= 357, XRT World Size= 8.
Parallel Loader Created. Training ...
[xla:3] Train: Epoch: [1][356/357]
                                        Loss: 4.4031e-02
                                                                F1: 0.95
       Train: Epoch: [1][356/357]
                                        Loss: 3.9928e-02
                                                                F1: 0.96
[xla:1]
[xla:4] Train: Epoch: [1][356/357]
                                        Loss: 4.0557e-02
                                                                F1: 0.96
[xla:2] Train: Epoch: [1][356/357]
                                        Loss: 3.6746e-02
                                                                F1: 0.95
[xla:0] Train: Epoch: [1][356/357]
                                        Loss: 3.3029e-02
                                                                F1: 0.97
[xla:7] Train: Epoch: [1][356/357]
                                        Loss: 4.0470e-02
                                                                F1: 0.96
[xla:5] Train: Epoch: [1][356/357]
                                        Loss: 4.3136e-02
                                                                F1: 0.95
[xla:6] Train: Epoch: [1][356/357]
                                        Loss: 4.4686e-02
                                                                F1: 0.95
Finished training epoch 1
Parallel Loader Created. Validating ...
Val loss: 0.006818264722824097
F1 score: 0.9981893763780808
Confusion matrix:
[[164
       1]
[ 0 859]]
Parallel Loader Created. Testing ...
Parallel Loader Created. Training ...
[xla:4] Train: Epoch: [2][356/357]
                                        Loss: 7.4457e-03
                                                                F1: 1.00
[xla:7] Train: Epoch: [2][356/357]
                                        Loss: 7.4354e-03
                                                                F1: 0.99
[xla:0]
        Train: Epoch: [2][356/357]
                                        Loss: 5.9327e-03
                                                                F1: 1.00
[xla:5] Train: Epoch: [2][356/357]
                                        Loss: 1.0117e-02
                                                                F1: 1.00
[xla:2] Train: Epoch: [2][356/357]
                                        Loss: 8.7704e-03
                                                                F1: 0.99
[xla:3] Train: Epoch: [2][356/357]
                                        Loss: 6.9226e-03
                                                                F1: 1.00
[xla:1] Train:
                Epoch: [2][356/357]
                                        Loss: 9.1582e-03
                                                                F1: 1.00
[xla:6] Train: Epoch: [2][356/357]
                                        Loss: 6.9174e-03
                                                                F1: 1.00
Finished training epoch 2
Parallel Loader Created. Validating ...
Val loss: 0.006171166896820068
F1 score: 0.9946208599269823
Confusion matrix:
[[165
        0]
 [ 3 856]]
Parallel Loader Created. Testing ...
Predicted.
Parallel Loader Created. Training ...
        Train: Epoch: [3][356/357]
                                        Loss: 5.3658e-03
                                                                F1: 1.00
[xla:1]
        Train: Epoch: [3][356/357]
[xla:2]
                                        Loss: 3.4437e-03
                                                                F1: 1.00
[xla:0] Train: Epoch: [3][356/357]
                                        Loss: 5.5381e-03
                                                                F1: 1.00
[xla:3] Train: Epoch: [3][356/357]
                                        Loss: 1.7065e-03
                                                                F1: 1.00
[xla:5] Train: Epoch: [3][356/357]
                                        Loss: 3.5652e-03
                                                                F1: 1.00
[xla:4] Train: Epoch: [3][356/357]
                                        Loss: 2.6878e-03
                                                                F1: 1.00
[xla:7]
        Train: Epoch: [3][356/357]
                                        Loss: 1.4646e-03
                                                                F1: 1.00
                                                                F1: 1.00
                 Epoch: [3][356/357]
                                        Loss: 2.5671e-03
[xla:6] Train:
Finished training epoch 3
Parallel Loader Created. Validating ...
Val loss: 0.0019067823886871338
F1 score: 0.9981982203907258
Confusion matrix:
[[165
        0]
```

```
[ 1 858]]
Parallel Loader Created. Testing ...
Parallel Loader Created. Training ...
[xla:1] Train: Epoch: [4][356/357]
                                       Loss: 4.6105e-03
                                                               F1: 1.00
[xla:7] Train: Epoch: [4][356/357]
                                       Loss: 5.2639e-03
                                                               F1: 1.00
[xla:0] Train: Epoch: [4][356/357]
                                       Loss: 2.3186e-03
                                                               F1: 1.00
[xla:2] Train: Epoch: [4][356/357]
                                       Loss: 2.5686e-03
                                                               F1: 1.00
[xla:3] Train: Epoch: [4][356/357]
                                       Loss: 1.9963e-03
                                                               F1: 1.00
[xla:4] Train: Epoch: [4][356/357]
                                       Loss: 3.1658e-03
                                                               F1: 1.00
[xla:6] Train: Epoch: [4][356/357]
                                       Loss: 3.5553e-03
                                                               F1: 1.00
[xla:5] Train: Epoch: [4][356/357]
                                       Loss: 4.8507e-03
                                                               F1: 1.00
Finished training epoch 4
Parallel Loader Created. Validating ...
Val loss: 0.007748335599899292
F1 score: 0.9964052012244783
Confusion matrix:
[[165
       0]
[ 2 857]]
Parallel Loader Created. Testing ...
Predicted.
Parallel Loader Created. Training ...
[xla:1] Train: Epoch: [5][356/357]
                                                               F1: 1.00
                                       Loss: 1.7457e-03
[xla:4] Train: Epoch: [5][356/357]
                                       Loss: 3.7825e-03
                                                               F1: 1.00
[xla:3] Train: Epoch: [5][356/357]
                                       Loss: 3.9721e-03
                                                               F1: 1.00
[xla:2] Train: Epoch: [5][356/357]
                                       Loss: 1.7150e-03
                                                               F1: 1.00
[xla:7] Train: Epoch: [5][356/357]
                                       Loss: 3.1186e-03
                                                               F1: 1.00
[xla:5] Train: Epoch: [5][356/357]
                                       Loss: 3.0903e-03
                                                               F1: 1.00
[xla:6] Train: Epoch: [5][356/357]
                                       Loss: 5.4382e-03
                                                               F1: 1.00
[xla:0] Train: Epoch: [5][356/357]
                                       Loss: 1.3916e-03
                                                               F1: 1.00
Finished training epoch 5
Parallel Loader Created. Validating ...
Val loss: 0.003835141658782959
F1 score: 0.9981893763780808
Confusion matrix:
[[164
       1]
[ 0 859]]
Parallel Loader Created. Testing ...
Predicted.
Parallel Loader Created. Training ...
[xla:1] Train: Epoch: [6][356/357]
                                       Loss: 4.0033e-03
                                                               F1: 1.00
[xla:3] Train: Epoch: [6][356/357]
                                       Loss: 2.0922e-03
                                                               F1: 1.00
       Train: Epoch: [6][356/357]
[xla:6]
                                       Loss: 6.7219e-04
                                                               F1: 1.00
[xla:7] Train: Epoch: [6][356/357]
                                       Loss: 3.1680e-03
                                                               F1: 1.00
[xla:4] Train: Epoch: [6][356/357]
                                       Loss: 3.9566e-03
                                                               F1: 1.00
[xla:0] Train: Epoch: [6][356/357]
                                       Loss: 3.9136e-04
                                                               F1: 1.00
[xla:2] Train: Epoch: [6][356/357]
                                       Loss: 9.4927e-04
                                                               F1: 1.00
[xla:5] Train: Epoch: [6][356/357]
                                       Loss: 9.4414e-04
                                                               F1: 1.00
Finished training epoch 6
Parallel Loader Created. Validating ...
Val loss: 0.00407758355140686
F1 score: 1.0
Confusion matrix:
[[165
       0]
[ 0 859]]
Parallel Loader Created. Testing ...
Predicted.
```

```
Parallel Loader Created. Training ...
[xla:1] Train: Epoch: [7][356/357]
                                       Loss: 6.9681e-04
                                                               F1: 1.00
[xla:6] Train: Epoch: [7][356/357]
                                       Loss: 4.7184e-04
                                                               F1: 1.00
[xla:2] Train: Epoch: [7][356/357]
                                       Loss: 8.5003e-04
                                                               F1: 1.00
[xla:4] Train: Epoch: [7][356/357]
                                       Loss: 2.3427e-03
                                                               F1: 1.00
[xla:3] Train: Epoch: [7][356/357]
                                       Loss: 1.2954e-03
                                                               F1: 1.00
[xla:5] Train: Epoch: [7][356/357]
                                       Loss: 6.1967e-04
                                                               F1: 1.00
[xla:0] Train: Epoch: [7][356/357]
                                       Loss: 5.3641e-04
                                                               F1: 1.00
[xla:7] Train: Epoch: [7][356/357]
                                       Loss: 3.3967e-04
                                                               F1: 1.00
Finished training epoch 7
Parallel Loader Created. Validating ...
Val loss: 0.002268284559249878
F1 score: 0.9981982203907258
Confusion matrix:
[[165
       0]
[ 1 858]]
Parallel Loader Created. Testing ...
Predicted.
Parallel Loader Created. Training ...
[xla:1] Train: Epoch: [8][356/357]
                                       Loss: 3.2318e-04
                                                               F1: 1.00
[xla:4] Train: Epoch: [8][356/357]
                                       Loss: 1.0663e-03
                                                               F1: 1.00
[xla:2] Train: Epoch: [8][356/357]
                                       Loss: 4.0750e-04
                                                               F1: 1.00
[xla:3] Train: Epoch: [8][356/357]
                                       Loss: 1.1807e-04
                                                               F1: 1.00
[xla:6] Train: Epoch: [8][356/357]
                                       Loss: 2.9839e-04
                                                               F1: 1.00
[xla:7] Train: Epoch: [8][356/357]
                                       Loss: 1.2775e-03
                                                               F1: 1.00
[xla:5] Train: Epoch: [8][356/357]
                                       Loss: 4.3259e-04
                                                               F1: 1.00
[xla:0] Train: Epoch: [8][356/357]
                                       Loss: 6.5882e-04
                                                               F1: 1.00
Finished training epoch 8
Parallel Loader Created. Validating ...
Val loss: 0.0028145313262939453
F1 score: 0.9964052012244783
Confusion matrix:
[[165
       01
[ 2 857]]
Parallel Loader Created. Testing ...
Predicted.
Parallel Loader Created. Training ...
[xla:1] Train: Epoch: [9][356/357]
                                       Loss: 4.5298e-04
                                                               F1: 1.00
[xla:2] Train: Epoch: [9][356/357]
                                       Loss: 5.4691e-04
                                                               F1: 1.00
[xla:0] Train: Epoch: [9][356/357]
                                       Loss: 8.3550e-04
                                                               F1: 1.00
[xla:4] Train: Epoch: [9][356/357]
                                       Loss: 1.2240e-03
                                                               F1: 1.00
[xla:3] Train: Epoch: [9][356/357]
                                       Loss: 3.6112e-04
                                                               F1: 1.00
[xla:5] Train: Epoch: [9][356/357]
                                       Loss: 5.0211e-04
                                                               F1: 1.00
[xla:6] Train: Epoch: [9][356/357]
                                       Loss: 2.5577e-04
                                                               F1: 1.00
[xla:7] Train: Epoch: [9][356/357]
                                       Loss: 9.0441e-04
                                                               F1: 1.00
Finished training epoch 9
Parallel Loader Created. Validating ...
Val loss: 0.004729956388473511
F1 score: 0.9981982203907258
Confusion matrix:
[[165
       0]
[ 1 858]]
Parallel Loader Created. Testing ...
Predicted.
Parallel Loader Created. Training ...
[xla:6] Train: Epoch: [10][356/357]
                                       Loss: 6.7692e-05
                                                               F1: 1.00
        Train: Epoch: [10][356/357]
[xla:1]
                                       Loss: 3.5734e-04
                                                               F1: 1.00
```

```
[xla:4] Train: Epoch: [10][356/357]
                                       Loss: 2.1963e-04
                                                               F1: 1.00
[xla:2] Train: Epoch: [10][356/357]
                                       Loss: 1.6106e-04
                                                               F1: 1.00
[xla:3] Train: Epoch: [10][356/357]
                                       Loss: 2.3295e-04
                                                               F1: 1.00
[xla:7] Train: Epoch: [10][356/357]
                                       Loss: 2.7251e-04
                                                               F1: 1.00
[xla:0] Train: Epoch: [10][356/357]
                                                               F1: 1.00
                                       Loss: 1.5561e-04
[xla:5] Train: Epoch: [10][356/357]
                                       Loss: 9.6265e-05
                                                               F1: 1.00
Finished training epoch 10
Parallel Loader Created. Validating ...
Val loss: 0.0031367242336273193
F1 score: 0.9981982203907258
Confusion matrix:
[[165
        0]
[ 1 858]]
Parallel Loader Created. Testing ...
Predicted.
```