

Output:

```
/Users/nicolasgaldona/PycharmProjects/test/venv/bin/python
```

```
/Users/nicolasgaldona/PycharmProjects/test/newDatasetBERT_PyTorch.py
```

```
/Users/nicolasgaldona/PycharmProjects/test/venv/lib/python3.11/site-  
packages/transformers/tokenization_utils_base.py:1601: FutureWarning:
```

```
`clean_up_tokenization_spaces` was not set. It will be set to `True` by default. This  
behavior will be deprecated in transformers v4.45, and will be then set to `False` by  
default. For more details check this issue:
```

```
https://github.com/huggingface/transformers/issues/31884
```

```
warnings.warn(  

```

A parameter name that contains `beta` will be renamed internally to `bias`. Please use a different name to suppress this warning.

A parameter name that contains `gamma` will be renamed internally to `weight`. Please use a different name to suppress this warning.

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Some weights of BertForSequenceClassification were not initialized from the model checkpoint at bert-base-uncased and are newly initialized: ['classifier.bias', 'classifier.weight']

You should probably TRAIN this model on a down-stream task to be able to use it for predictions and inference.

/Users/nicolasgaldona/PycharmProjects/test/venv/lib/python3.11/site-packages/transformers/optimization.py:591: FutureWarning: This implementation of

AdamW is deprecated and will be removed in a future version. Use the PyTorch implementation `torch.optim.AdamW` instead, or set ``no_deprecation_warning=True`` to disable this warning

```
warnings.warn(
```

Epoch 2/3: 0%| | 0/314 [00:00<?, ?it/s]Epoch 1 - Training Loss: 0.0757 - Training Accuracy: 0.9753

Epoch 1 completed in 2587.84 seconds

Epoch 3/3: 0%| | 0/314 [00:00<?, ?it/s]Epoch 2 - Training Loss: 0.0151 - Training Accuracy: 0.9962

Epoch 2 completed in 3212.98 seconds

Epoch 3 - Training Loss: 0.0066 - Training Accuracy: 0.9980

Epoch 3 completed in 2396.00 seconds

	precision	recall	f1-score	support
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ham	1.00	1.00	1.00	483
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spam	0.99	0.97	0.98	75
------	------	------	------	----

accuracy			0.99	558
----------	--	--	------	-----

macro avg	0.99	0.99	0.99	558
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weighted avg	0.99	0.99	0.99	558
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Process finished with exit code 0

