```
 1 C:\Users\nat\PycharmProjects\PythonProject\.venv\
   Scripts\python.exe C:\Users\nat\PycharmProjects\
   PythonProject\BERT-rep.py
 2 Some weights of the model checkpoint at bert-base-
   uncased were not used when initializing
   BertForMaskedLM: ['bert.pooler.dense.bias', 'bert.
   pooler.dense.weight', 'cls.seq_relationship.bias', '
   cls.seq_relationship.weight']
 3 - This IS expected if you are initializing
   BertForMaskedLM from the checkpoint of a model
   trained on another task or with another architecture
    (e.g. initializing a BertForSequenceClassification
   model from a BertForPreTraining model).
 4 - This IS NOT expected if you are initializing
   BertForMaskedLM from the checkpoint of a model that
   you expect to be exactly identical (initializing a
   BertForSequenceClassification model from a
   BertForSequenceClassification model).
 5 Original: and then he uh he he he must have had the
   umbrella on his back it looks like in the pack. and
   they went out on the rain and he was brained on.
 6 Tokenized: ['and', 'then', 'he', 'uh', 'he', 'he', '
   he', 'must', 'have', 'had', 'the', 'umbrella', 'on
   ', 'his', 'back', 'it', 'looks', 'like', 'in', 'the
   ', 'pack', '.', 'and', 'they', 'went', 'out', 'on', '
   the', 'rain', 'and', 'he', 'was', 'brain', '##ed', '
   on', '.']
 7 Token IDs: [1998, 2059, 2002, 7910, 2002, 2002, 2002
   , 2442, 2031, 2018, 1996, 12977, 2006, 2010, 2067,
   2009, 3504, 2066, 1999, 1996, 5308, 1012, 1998, 2027
   , 2253, 2041, 2006, 1996, 4542, 1998, 2002, 2001,
   4167, 2098, 2006, 1012]
 8 1..Removing Filler Words..
 9 Filtered tokens: [1998, 2059, 2002, 2002, 2002, 2002
   , 2442, 2031, 2018, 1996, 12977, 2006, 2010, 2067,
   2009, 3504, 2066, 1999, 1996, 5308, 1012, 1998, 2027
   , 2253, 2041, 2006, 1996, 4542, 1998, 2002, 2001,
   4167, 2098, 2006, 1012]
10 Decoded  and then he he he he must have had the
   umbrella on his back it looks like in the pack. and
   they went out on the rain and he was brained on.
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11  2..Removing Repeated Words..
12  Repeated words found at:  [(2, 2002), (2, 2002), (2,
    2002)]
13  Filtered rep. : [1998, 2059, 2002, 2442, 2031, 2018,
    1996, 12977, 2006, 2010, 2067, 2009, 3504, 2066, 1999
    , 1996, 5308, 1012, 1998, 2027, 2253, 2041, 2006,
    1996, 4542, 1998, 2002, 2001, 4167, 2098, 2006, 1012]
14  Decoded:  and then he must have had the umbrella on
    his back it looks like in the pack. and they went out
     on the rain and he was brained on.
15
16  Masked sentence:  ['and then he must have had the
    umbrella on his back it looks like in the pack and [
    MASK] went out [MASK] the rain and he was [MASK] on
    .']
17
18  ---- Sentence  1
19  Original: and then he must have had the umbrella on
    his back it looks like in the pack and [MASK] went
    out [MASK] the rain and he was [MASK] on.
20  Tokenized: ['and', 'then', 'he', 'must', 'have', 'had
    ', 'the', 'umbrella', 'on', 'his', 'back', 'it', '
    looks', 'like', 'in', 'the', 'pack', 'and', '[MASK
    ]', 'went', 'out', '[MASK]', 'the', 'rain', 'and', '
    he', 'was', '[MASK]', 'on', '.']
21  Token IDs: [1998, 2059, 2002, 2442, 2031, 2018, 1996
    , 12977, 2006, 2010, 2067, 2009, 3504, 2066, 1999,
    1996, 5308, 1998, 103, 2253, 2041, 103, 1996, 4542,
    1998, 2002, 2001, 103, 2006, 1012]
22
23  Top predictions to replace masked token:
24  Token: he, Score: 0.6951
25  Token: it, Score: 0.1401
26  Token: they, Score: 0.0657
27  Token: we, Score: 0.0370
28  Token: i, Score: 0.0124
29
30  Top predictions to replace masked token:
31  Token: into, Score: 0.7849
32  Token: in, Score: 0.1958
33  Token: of, Score: 0.0047
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34 Token: to, Score: 0.0035
35 Token: with, Score: 0.0023
36
37 Top predictions to replace masked token:
38 Token: carrying, Score: 0.1123
39 Token: holding, Score: 0.0841
40 Token: carried, Score: 0.0835
41 Token: hanging, Score: 0.0617
42 Token: getting, Score: 0.0426
43
44 Unmasked sentence with top prediction:
45 and then he must have had the umbrella on his back it
     looks like in the pack and he went out into the rain
     and he was carrying on.
46
47
48 Process finished with exit code 0
49
```