

```
#!/pip install transformers
```

```
Collecting transformers
  Downloading https://files.pythonhosted.org/packages/50/0c/7d5950fcd80b029be0a8891727ba21e0cd27692c407c51261c3c921f6de
    |████████████████████| 1.5MB 5.8MB/s
Requirement already satisfied: numpy in /usr/local/lib/python3.6/dist-packages (from transformers) (1.19.4)
Requirement already satisfied: tqdm>=4.27 in /usr/local/lib/python3.6/dist-packages (from transformers) (4.41.1)
Requirement already satisfied: filelock in /usr/local/lib/python3.6/dist-packages (from transformers) (3.0.12)
Requirement already satisfied: dataclasses; python_version < "3.7" in /usr/local/lib/python3.6/dist-packages (from transformers)
Requirement already satisfied: packaging in /usr/local/lib/python3.6/dist-packages (from transformers) (20.8)
Collecting sacremoses
  Downloading https://files.pythonhosted.org/packages/7d/34/09d19aff26edcc8eb2a01bed8e98f13a1537005d31e95233fd48216eed1
    |████████████████████| 890kB 44.9MB/s
Requirement already satisfied: regex!=2019.12.17 in /usr/local/lib/python3.6/dist-packages (from transformers) (2019.12.17)
Requirement already satisfied: requests in /usr/local/lib/python3.6/dist-packages (from transformers) (2.23.0)
Collecting tokenizers==0.9.4
  Downloading https://files.pythonhosted.org/packages/0f/1c/e789a8b12e28be5bc1ce2156cf87cb522b379be9cad7ad8091a4cc107c
    |████████████████████| 2.9MB 46.2MB/s
Requirement already satisfied: pyparsing>=2.0.2 in /usr/local/lib/python3.6/dist-packages (from packaging->transformers) (2.4.7)
Requirement already satisfied: six in /usr/local/lib/python3.6/dist-packages (from sacremoses->transformers) (1.15.0)
Requirement already satisfied: click in /usr/local/lib/python3.6/dist-packages (from sacremoses->transformers) (7.1.2)
Requirement already satisfied: joblib in /usr/local/lib/python3.6/dist-packages (from sacremoses->transformers) (1.0.0)
Requirement already satisfied: idna<3,>=2.5 in /usr/local/lib/python3.6/dist-packages (from requests->transformers) (2.9.0)
Requirement already satisfied: urllib3!=1.25.0,!<1.25.1,<1.26,>=1.21.1 in /usr/local/lib/python3.6/dist-packages (from requests->transformers) (1.25.11)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.6/dist-packages (from requests->transformers) (2020.6.20)
Requirement already satisfied: chardet<4,>=3.0.2 in /usr/local/lib/python3.6/dist-packages (from requests->transformers) (3.0.2)
Building wheels for collected packages: sacremoses
  Building wheel for sacremoses (setup.py) ... done
  Created wheel for sacremoses: filename=sacremoses-0.0.43-cp36-none-any.whl size=893261 sha256=ecd3fde21cf27f5b61ef027
  Stored in directory: /root/.cache/pip/wheels/29/3c/fd/7ce5c3f0666dab31a50123635e6fb5e19ceb42ce38d4e58f45
Successfully built sacremoses
Installing collected packages: sacremoses, tokenizers, transformers
Successfully installed sacremoses-0.0.43 tokenizers-0.9.4 transformers-4.1.1
```

```
import torch
from transformers import BertForQuestionAnswering
from transformers import BertTokenizer

#Model
```

```

model = BertForQuestionAnswering.from_pretrained('bert-large-uncased-whole-word-masking-finetuned-squad')

#Tokenizer
tokenizer = BertTokenizer.from_pretrained('bert-large-uncased-whole-word-masking-finetuned-squad')

```

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Downloading: 100% 1.34G/1.34G [00:24<00:00, 54.6MB/s]

Downloading: 100% 232k/232k [00:00<00:00, 2.05MB/s]

```

question = '''Why was the student group called "the Methodists?'''

paragraph = ''' The movement which would become The United Methodist Church began in the mid-18th century within the Church of England. A small group of students, including John Wesley, Charles Wesley and George Whitefield, met on the Oxford University campus. They focused on Bible study, methodical study of scripture and living a holy life. Other students mocked them, saying they were the "Holy Club" and "the Methodists", being methodical and exceptionally devout. Eventually, the so-called Methodists started individual societies or classes for members of the Church of England.

encoding = tokenizer.encode_plus(text=question,text_pair=paragraph)

inputs = encoding['input_ids'] #Token embeddings
sentence_embedding = encoding['token_type_ids'] #Segment embeddings
tokens = tokenizer.convert_ids_to_tokens(inputs) #input tokens

```

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#pip install transformers==3

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```

start_scores, end_scores = model(input_ids=torch.tensor([inputs]),token_type_ids=torch.tensor([sentence_embedding]))

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```

start_index = torch.argmax(start_scores)

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end_index = torch.argmax(end_scores)

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end_index = len(tokens) - 1
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```
answer = ' '.join(tokens[start_index:end_index+1])
```

```
corrected_answer = ''
```

```
for word in answer.split():
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    #If it's a subword token
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    if word[0:2] == '##':
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        corrected_answer += word[2:]
```

```
    else:
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```
        corrected_answer += ' ' + word
```

```
print(corrected_answer)
```

methodical and exceptionally detailed in their bible study , opinions and disciplined lifestyle

