

A6 Report

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Task 1:

Using learning rate 1e-5

First I imply "bert-base-uncased" for tokenizer and modelForSequenceClassification.

It has acc 0.84.

Next I imply RobertaTokenizer and RobertaForSequenceClassification. It has acc 0.86, which is higher than bert-base.

Task 2:

```
#zero-shot
    self.prefix = 'It was [MASK] sentence' # you can modify
this line
#one-shot
    self.prefix = ('It was good sentence. @united Thank you!
Off to LA to do something very special.'
                  'It was [MASK] sentence.')
#few-shot
    self.prefix = ('It was good sentence. @united Thank you!
Off to LA to do something very special.'
                  'It was neutral sentence. @JetBlue I would fly
somewhere hotter then here. Puerto Rico here I come. Lol'
                  "It was bad sentence. @united No. SATO rebooked me.
Just upset that my travel office had to fix this, and you
couldn't."
                  'It was [MASK] sentence.')
    self.verbalizer = {
        'good': 2,
        'neutral': 1,
        'bad': 0
    }
```

After trying zero-shot, one-shot, and few-shot, below is the results:

#zero-shot

[100 %] Time elapsed: 00:01:59 | ETA: 00:00:00accuracy: 0.314598 | precision:
0.543655 | recall: 0.314598 | f1: 0.296825

#one-shot

[100 %] Time elapsed: 00:01:58 | ETA: 00:00:00accuracy: 0.161397 | precision: 0.026049 | recall: 0.161397 | f1: 0.044858

#few-shot

[100 %] Time elapsed: 00:02:06 | ETA: 00:00:00accuracy: 0.266686 | precision: 0.593466 | recall: 0.266686 | f1: 0.230853

Task 3:

By implying three manual templates:

```
template = ManualTemplate(tokenizer=tokenizer,  
text='{"placeholder":"text_a"} It was {"mask"}'.')  
  
template = ManualTemplate(tokenizer=tokenizer,  
text='{"placeholder":"text_a"} It was {"mask"} sentence.'.')  
  
template = ManualTemplate(tokenizer=tokenizer,  
text='{"placeholder":"text_a"} This is {"mask"}')
```

It was {"mask"} got 0.82

It was {"mask"} sentence. got 0.83

This is {"mask"} got 0.86

Auto template got 0.91

So auto template performs better