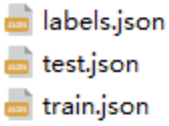
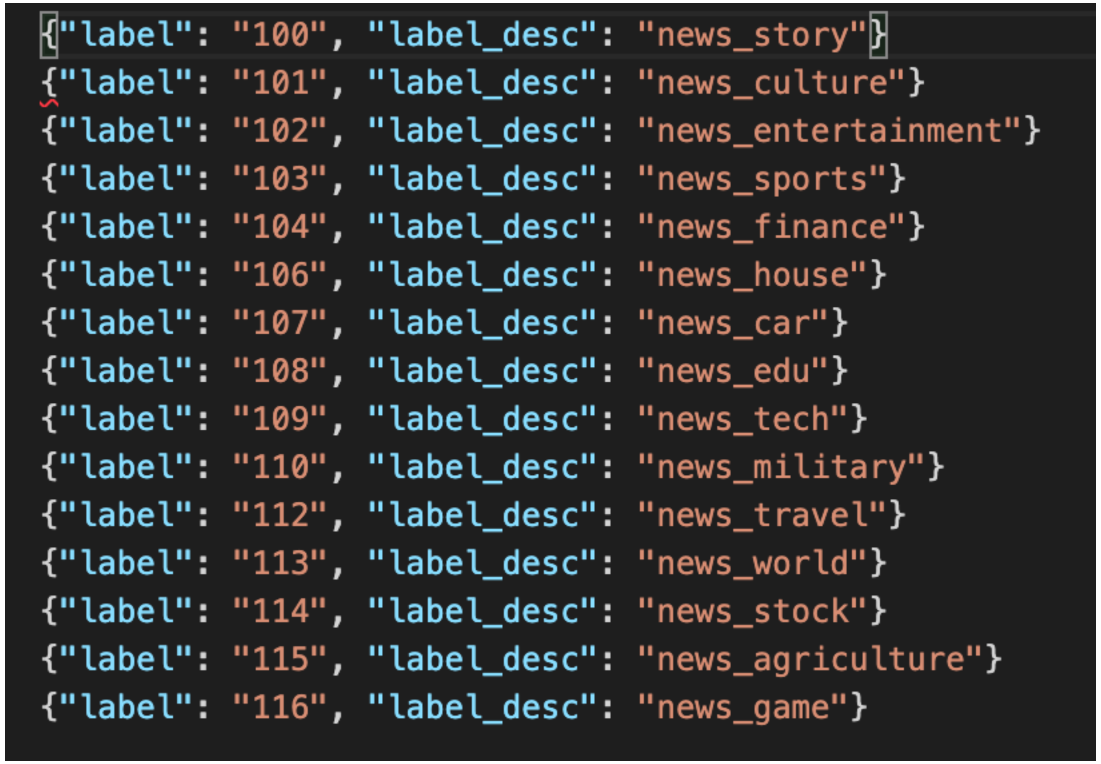
实验2
Experiment 2

文本数据挖掘

实验数据



labels.json
test.json
train.json



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{"label": "102", "label_desc": "news_entertainment"}
{"label": "103", "label_desc": "news_sports"}
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{"label": "108", "label_desc": "news_edu"}
{"label": "109", "label_desc": "news_tech"}
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{"label": "113", "label_desc": "news_world"}
{"label": "114", "label_desc": "news_stock"}
{"label": "115", "label_desc": "news_agriculture"}
{"label": "116", "label_desc": "news_game"}
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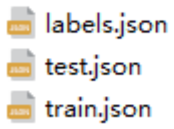
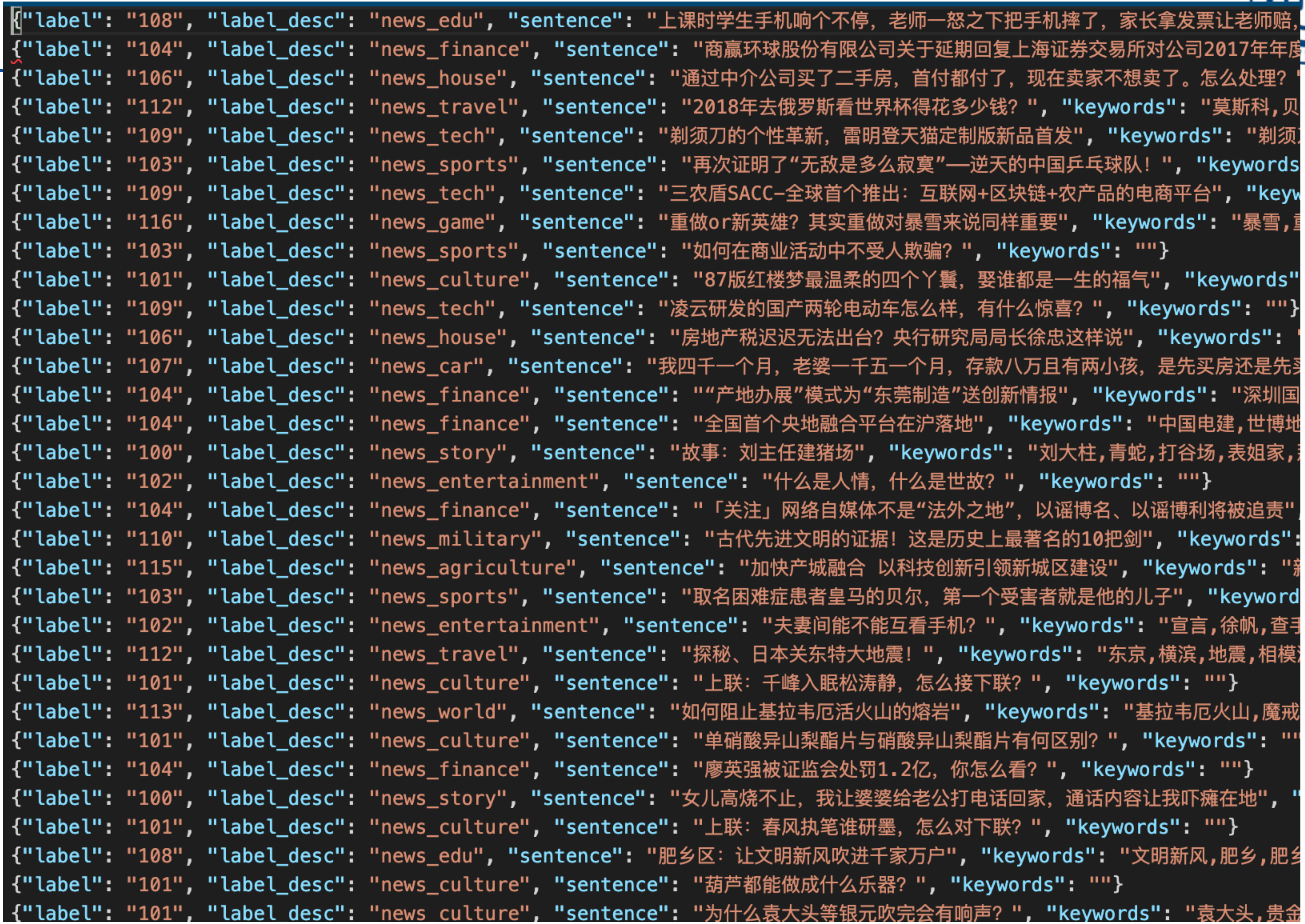
labels.json存放的是类别序号以及类别的描述信息

实验数据



```
labels.json
test.json
train.json
```

train.json和test.json给出了所属的类别以及sentence文本数据和keywords关键词



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{"label": "109", "label_desc": "news_tech", "sentence": "剃须刀的个性革新，雷明登天猫定制版新品首发", "keywords": "剃须
{"label": "103", "label_desc": "news_sports", "sentence": "再次证明了“无敌是多么寂寞”——逆天的中国乒乓球队！", "keywords
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{"label": "103", "label_desc": "news_sports", "sentence": "如何在商业活动中不受人欺骗？", "keywords": ""}
{"label": "101", "label_desc": "news_culture", "sentence": "87版红楼梦最温柔的四个丫鬟，娶谁都是一生的福气", "keywords"
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{"label": "107", "label_desc": "news_car", "sentence": "我四千一个月，老婆一千五一个月，存款八万且有两小孩，是先买房还是先
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{"label": "115", "label_desc": "news_agriculture", "sentence": "加快产城融合 以科技创新引领新城区建设", "keywords": "
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{"label": "102", "label_desc": "news_entertainment", "sentence": "夫妻间能不能互看手机？", "keywords": "宣言,徐帆,查
{"label": "112", "label_desc": "news_travel", "sentence": "探秘、日本关东特大地震！", "keywords": "东京,横滨,地震,相模
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{"label": "100", "label_desc": "news_story", "sentence": "女儿高烧不止，我让婆婆给老公打电话回家，通话内容让我吓瘫在地", "
{"label": "101", "label_desc": "news_culture", "sentence": "上联：春风执笔谁研墨，怎么对下联？", "keywords": ""}
{"label": "108", "label_desc": "news_edu", "sentence": "肥乡区：让文明新风吹进千家万户", "keywords": "文明新风,肥乡,肥
{"label": "101", "label_desc": "news_culture", "sentence": "葫芦都能做成什么乐器？", "keywords": ""}
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实验要求

实验一：在给定的数据集上，将文本数据分类成不同类别。

- 数据使用：只能使用文本数据（使用sentence，不用keywords）；
- 模型选择：只能使用CNN变种，比如TextCNN；
- 数据要求：数据处理时可以使用相应的工具，如jieba，可以使用数据增强方法，但不能引入新数据，也不能使用其他的数据集；

实验要求

实验二：同时使用文本数据和关键词的文本分类

- 数据使用：同时使用sentence和keywords；
- 模型选择：只能使用CNN变种，比如TextCNN；
- 数据要求：数据处理时可以使用相应的工具，如jieba，可以使用数据增强方法，但不能引入新数据，也不能使用其他的数据集；

开发环境

主要语言为python3
开发环境pycharm、vscode、jupyter notebook都可以

参考资料

TextCNN：
(2014 EMNLP) Convolutional Neural Networks for Sentence Classification
https://arxiv.org/abs/1408.5882

文本分类的一些算法：
https://zhuanlan.zhihu.com/p/76003775