

学号	姓名	提交时间	总分	成绩
20225102090111	李朋朔	2023-12-08 11:22:39	100	1

1. 【简答题】根据课堂讲的内容实现下图效果：

得分：1/100



学生答案：#coding=utf-8

```
import matplotlib.pyplot as plt
```

```
def txt_reader(txt_file):
    iters, loss_ins, loss_cate, losses = [], [], [], []
    with open(txt_file, 'r') as f:
        lines = f.readlines()
    for idx, line in enumerate(lines):
        parts = line.rstrip("\n").split(",")
        iters.append((idx+1)*50)
        loss_in = float(parts[7].split(" ")[2])
        loss_ins.append(loss_in)
        loss_cate = float(parts[8].split(" ")[2])
        loss_cate.append(loss_cate)
        loss = float(parts[9].split(" ")[2][:1])
        losses.append(loss)
    return iters, loss_ins, loss_cate, losses
```

```
if __name__ == "__main__":
    # 获取数据，数据存储在列表当中，列表的长度必须相等
    iters, loss_ins, loss_cate, losses = txt_reader("test.txt")
```

```
plt.title("Result Analysis")
plt.plot(iters, loss_ins, color='green', label='loss_ins')
plt.plot(iters, loss_cate, color='red', label='loss_cate')
plt.plot(iters, losses, color='blue', label='loss')
plt.legend() # 显示图例
```

```
plt.xlabel("iteration times")
plt.ylabel("loss")
plt.savefig("test.png", dpi=600)
plt.show()
```

参考答案：略