

Write a Python program that implements gradient descent for minimizing the least squares loss. As a stopping condition check for the objective (least squares error) between the current and previous iteration. If the objective improves by less than  $\theta$  then you stop.

It should be run from the command line as follows:

```
python <your python program file> <data file name> <training file name>
```

Note that you need to convert label 0 to -1 from training label file since in least squares model you have outputs of -1 or +1. But you should display your predictions as 0 instead of -1.