Explanation Of Files Contained and Use

This network is written in the c++11 standard. The code for the implementation of the network is contained within three files:

- main.cpp, which contains all the driver code for training, testing, importing displaying the data
- Matrix.cpp, which is a class designed to represent a traditional matrix with common functionality, i.e. matrix vector product and accessors
- BPNet_3L.cpp, which contains the implementation of the backpropagation algorithm with momentum, as well as stores all the weight matrices for each layer of the network

This code can be compiled in a linux environment (and similarly on other OSes) with the following command (assuming a compiler like gcc is installed):

```
~$ g++ -std=c++11 -o sp.x main.cpp BPNet_3L.cpp Matrix.cpp
```

And with the data files in the directory of execution, can be run using:

```
~$ ./sp.x
```

To choose which dataset to train on, simply change the filename on line 64 to the path to the data file you wish to run withThe program will write a summary of the run standard input (which can be redirected to a file using >). No third party tools are necessary, all code is my own.