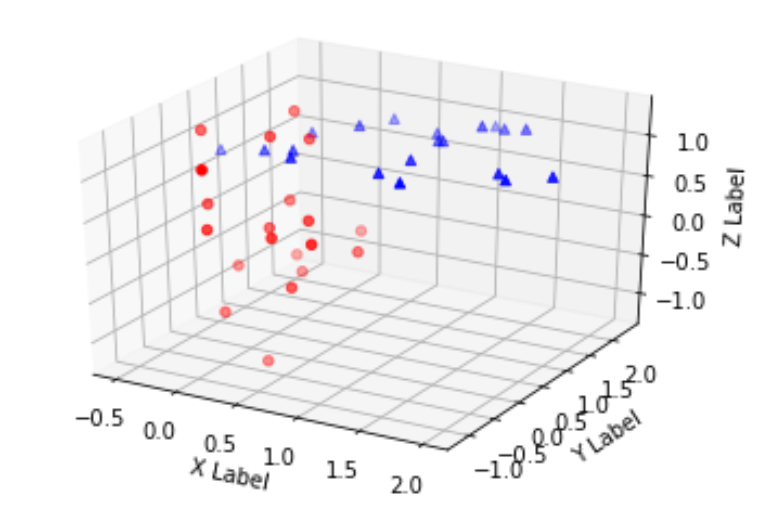
Problem 1

1. See code.

2. The scatter plot does not look like anything, and it is hard to tell which data point is where



3. I used the covariance formula to calculate the value of each entry of the covariance matrix. The result is

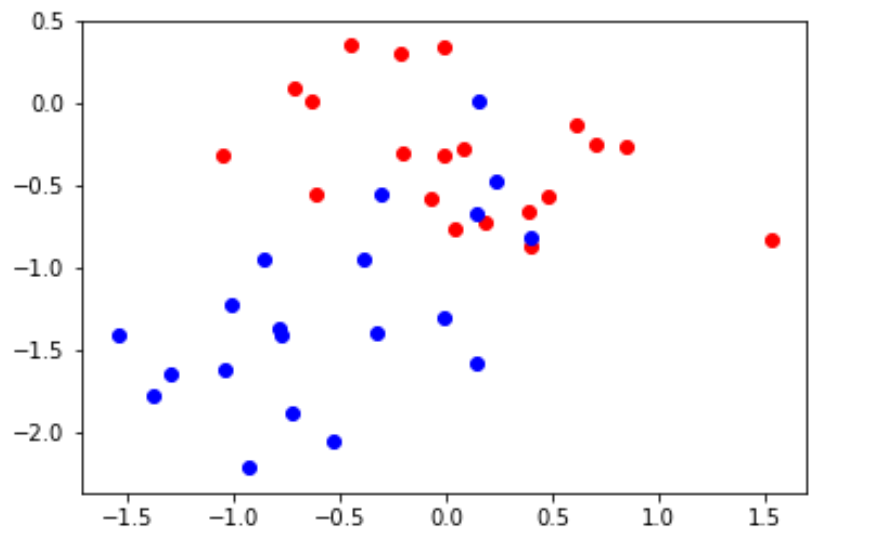
[[ 0.36212565 0.21606788 0.0938059 ]

[ 0.21606788 0.74300616 0.23599682]

[ 0.0938059 0.23599682 0.38017863]]

Which is the same as the result I got from np.cov()

4.



We now have a 2d image (the plane we got from the 2 vectors) The PCA makes it much easier to distinguish between the two sets of data.

Problem 2

