1.

a) Trainvalidsplit splits our training into new training and validation set. We do this to evaluate the performance of the model before actually directly testing on the test set.

b) Yes, we would be able to learn the new features that might be dominant and present in our validation set. Which increases the overall performance of the model.

c) Code.

d) To train and learn the bias weights. This bias would allow us to shift the target learning function to left or right to better fit the data.