HW1-3
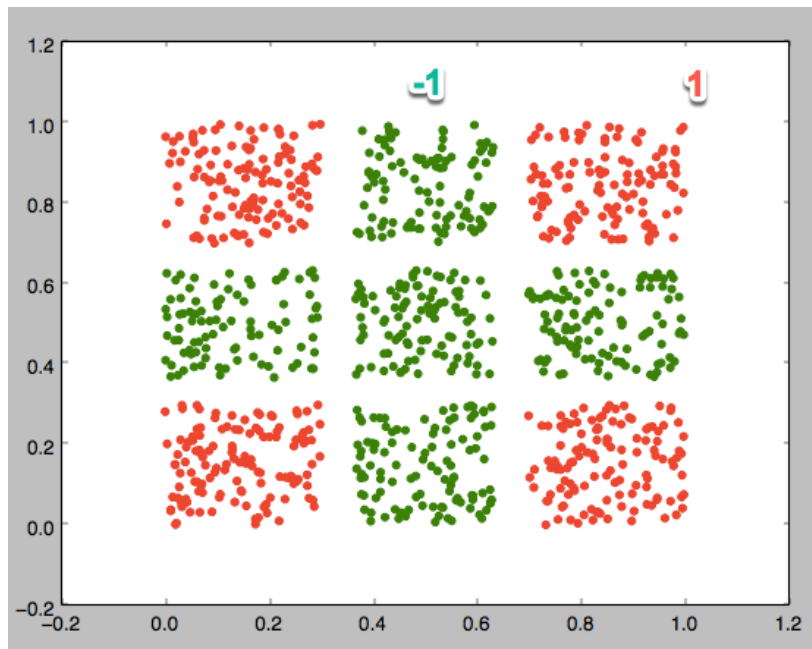
➢ How to run the program?

Install TensorFlow & Keras
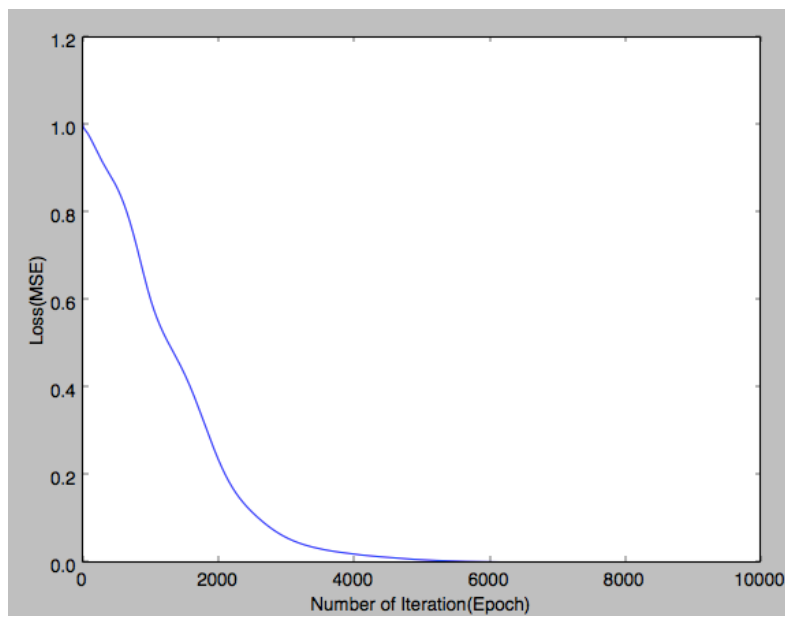
$ python hw1_2-4-3-1.py   # for hw1-3-1

$ python hw1_2-8-6-2.py   # for hw1-3-3

Dataset plot:

(1) 2-4-3-1

(2)

(2-4-3-1)

Because the output target
[-1, 1] so I use tanh
function

(1)   (-1)   2¹

(1,1,1)   (1,-1,-1) (-1,1,-1) (-1,-1,1) 2³

(-1,-1,-1,-1) (1,1,-1,-1) (1,1,-1,-1) (1,1,1,1) (-1,-1,1,1) (1,1,1,1) (1,-1,1,1) (1,1,1,1) (1,-1,1,1) 2⁴

Redundant
Neurals

(3) 2-8-6-1

2-8-6-1 learns faster than 2-4-3-1, with fewer iterations got better loss value.

There're more redundant neural in 2-8-6-1, but it is stronger.