Notices:

1. The way of choosing the initial values of the weights vector always affect the final weights vector, choosing a constant initial values like 1 makes the model adjust them slightly without huge difference in the final weights.

On the other hand, choosing the initial weights randomly makes it produces different weights every trial, specially when we have few number of input points (x values), increasing the number of points in the training set affect the weights values and reduce the differences arises from the random selection of the initial values