Part 1

2. The RMSE comes out to be **335790.26750**, after running **1000000** iterations with learning rate as 0.005.

3. Below are the RMSE values obtained on test.csv after training the model on the first N points for the training set (train.csv). There is a general improvement in predictions as the training data set increases, apart from the initial increase in RMSE. The initial rise may be because the first 2000 data points are more closer to the test.csv points.

Data Points (N)	Root Mean Squared Error
2000	336427.16452
5000	336586.46297
7000	336019.76370
10000	335965.37521
17613	335813.64454