Machine Learning Coding Individual Task One:

Category: *Regression*

Sub-Category: *Linear Regression*

ML Model: *Predictive Models*

Upload to your personal GitHub set the repository to public and copy the link to a word document and upload on elearning

Problem Definition:

You are expected to use the provided **Nairobi Office Price Ex** dataset with **One feature** x (**office size**) and **one target** y (**office price**).

Write **two** python *functions* one for computing **Mean Squared Error** to be used as your Performance Measure Technique and another for **Gradient Descent** as your learning algorithm that can update weights (refer to class theory notes on this formulas)

Set random initial values for slope (m) and y-intercept (c) and train an intelligent linear regression model of your dataset for **10 epochs** by calling the above functions. Show the error in every epoch. Also plot the line of best fit after the final epoch.

Use your above learnt line to **predict the office price when the size is 100 sq. ft.**