General Information:

Optimization

Exercise 1 Download the file *optimization.m* from the website. It contains the implementation of a quadratic bivariate function. Optimize the function (find the minimum) with the following strategy:

    (a)   Optimize with Normalized Steepest Descent (try both L1 and L2 norm)

    (b)   Perform a Backtracking Line Search, using the Armijo Goldstein condition.

    (c)   Try also the L_P norm to adjust the gradient direction

    (d)   Start at $(x_1, x_2) = (-1, -1)$

    (e)   Track your convergence, and stop at a sufficiently small value (e.g., $1e - 5$)