Optimum Design Spring 2016
Homework #2

Description

In this homework assignment you are asked to implement the Lagrange Multiplier Theorem using MATLAB. You will have to complete the following four tasks:

1. Develop your own L-Solver MATLAB function
2. Test your L-Solver with the provided MATLAB test function
3. Use your L-Solver to solve for two problems in the textbook
    a. Problem 4.47: Solve the problem and report your answer with a single plot. The plot should show a feasible region, (an) optimum point(s) and an objective function at the optimum value that you find.
    b. Problem 4.44: Solve the problem by your L-Solver and graphical solution. Use MATLAB subplot function to show both results, two plots side-by-side.
4. Write a short memo
    a. Briefly describe your approach and results.
    b. Discuss about the two methods. Comment on their advantages and limitations.

Deliverables

1. A MATLAB function file: l_solver.m
2. Two MATLAB script files: p444.m and p447.m
3. A short memo (recommended file format: PDF)

Important Notes (MUST READ)

1. Name your file as required.
2. Make sure your program can run, not only on your computer.
3. Do not compress your files into any format, such as .zip, .rar, .7z, etc.
4. Generate your figures in good quality.

Please note that I will not debug on your program if it is not running on my side. And you are allowed to submit your homework again after the deadline.