

PROJECT REPORT

OPERATION RESEARCH 1(LINEAR PROGRAMMING)

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# Introduction

This report contains the code snapshots of the implementation of the Primal Simplex, Dual Simplex method, Phase 1 Problems, Criss Cross Method for linear programming. It also includes the snapshot for the test file and the output file snapshot corresponding to the test. All the implementation has been done in python programming language. I have used numpy framework for storing my vectors, matrices, computing inverse of matrices and other basic mathematic computations.

Since it was not clear from the project assignment pdf, what to include in the project report, I have included the screenshots corresponding to the code I have written. I have uploaded by code on the github along with the matrices csv that I have used for testing and development purposes. The code represents my work only. ***I have also uploaded the PDF file generated by Latex code at the end of this report i.e. you will find the latex PDF attached at the end of this report.*** Since, it was not clear in the description, whether we have to make the latex file for Primal or Dual method. I have created tex file and pdf files for both the solvers. The code generates the latex file depending upon the input to the solvers.

All the latex files, Code files, test files, csv files are on the github :  
<https://github.com/jasmeet17/lp_project>

# Code Snapshots (Primal and Dual Method)../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/q../../../../../Desktop/lp%20proj%20screen%20shot/qu../../../../../Desktop/lp%20proj%20screen%20shot/qu

# Code Snapshots (Latex File Generator, Python Code)../../../../../Desktop/lp%20proj%20screen%20shot/latex%20s../../../../../Desktop/lp%20proj%20screen%20shot/latex%20s../../../../../Desktop/lp%20proj%20screen%20shot/latex%20s../../../../../Desktop/lp%20proj%20screen%20shot/latex%20s../../../../../Desktop/lp%20proj%20screen%20shot/latex%20s

# Code Snapshots (Criss Cross Method)../../../../../Desktop/lp%20proj%20screen%20shot/cr../../../../../Desktop/lp%20proj%20screen%20shot/cr

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# Code Snapshots (Test file with output on terminal)../../../../../Desktop/lp%20proj%20screen%20shot/test%2../../../../../Desktop/lp%20proj%20screen%20shot/test%2../../../../../Desktop/lp%20proj%20screen%20shot/test%2