Numerical optimization with Python – programming assignment 2 Roni Ben Dom 207576463

Function 1 - qp:

Point of convergence: [4.99860398e-01, 4.99860398e-01, 2.79203060e-04]

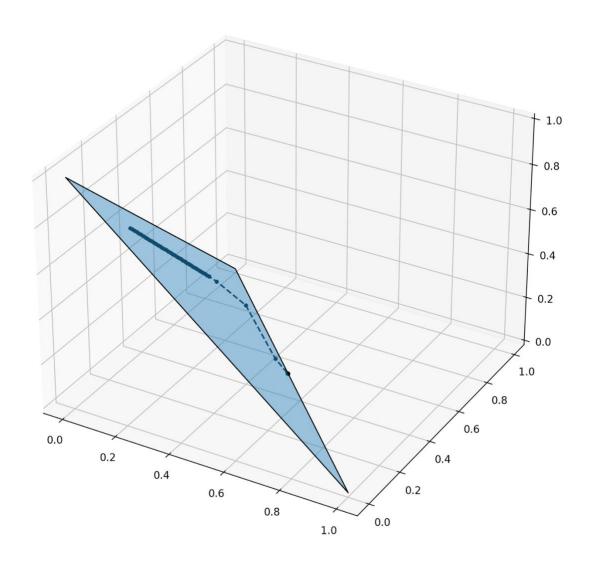
Objective value at point of convergence: 1.5002793199919378

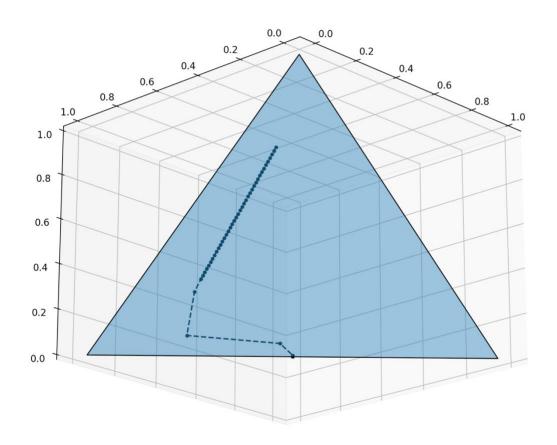
-x value at point of convergence: -0.4998603984697939, $-x \le 0$ constraint holds

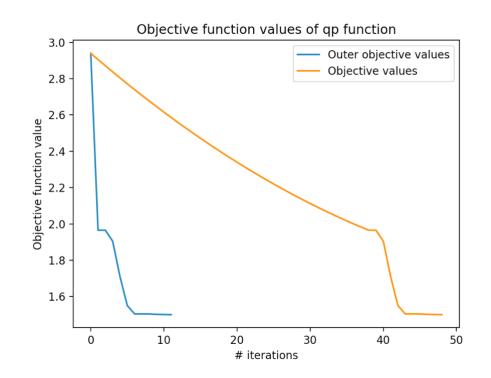
-y value at point of convergence: -0.4998603984697939, $-y \le 0$ constraint holds

-z value at point of convergence: -0.0002792030604133267, $-z \le 0$ constraint holds

x + y + z value at point of convergence: 1.0000000000001, x + y + z = 1 constraint holds







Function 2 – lp:

Point of convergence: [1.99996923, 0.9999394]

Objective value at point of convergence: -2.9999086233866827 (minimized over -x-y)

-y - x + 1 value at point of convergence: -1.9999086233866827, $-y - x + 1 \le 0$ constraint holds

y - 1 value at point of convergence: -6.06039866168917e-05, $y-1 \le 0$ constraint holds

x - 2 value at point of convergence: -3.077262670037051e-05, $x-2 \le 0$ constraint holds

-y value at point of convergence: -0.9999393960133831, $-y \le 0$ constraint holds

