Mixed-integer linear programs or mixed-binary linear programs are an important optimization problem and interesting object for Quantum computing. This notebook shows how an mixed-binary problem can be optimized with the help of an Quantum computer. Two different optimization strategies are implemented, a strategy inspired by classical ADMM algorithms and another using a Kriging surrogate model on top of an VQE algorithm to optimize the binary problem.

Both can be used and compared with different ansatz functions and optimizers for VQE. Currently mixed-binary equality constraints and intervals for the continuous variables are supported.