

1. A minor inconvenience if you chose to solve this exercise in Python: the `mcholmz` function for LDL decomposition is written for MATLAB. It shouldn't be too difficult to rewrite the function in Python.
2. Well/ill-conditioned quadratic problem. Use the following function and initial guess:

$$f(x) = \frac{1}{2} x^T H x$$
$$x_0 = (1, 1, 1, 1, 1, 1, 1, 1, 1)$$

Use the Hessians in the `h.mat` file (attached to the homework). The file contains two Hessians.

3. Ignore the second remark from the homework file – submit a pdf document.