Classical algorithms for sorting in internal memory were designed with an assumption, that the memory is homogenous. But modern computers have hierarchically structured memory with various speeds of it's layers. Execution time of algortihm is dependant not only on operation count, but also on count of transfers between memory layers. Therefore internal algorithms are having some characteristics of external algorithms.

In this paper we set our goal to summarize some existing approaches to this problem and summarize known optimalizations of internal sorting algorithms. Our main goal however is to impelent chosen algorithms and measure their performance experimentally.