

In **internal sorting** all the data to sort is stored in memory at all times while sorting is in progress. In **external sorting** data is stored outside memory (like on disk) and only loaded into memory in small chunks. External sorting is usually applied in cases when data can't fit into memory entirely.

External Sorting

- Sort n records
- Space needed by the n records is very large (either large n or large size of each single element)

Computer Model

ALU->Register->Cache 1.....Cache N->Main Memory

In computer science, a **double-ended priority** queue or double-ended heap is a data structure similar to a priority queue or heap, but allows for efficient removal of both the maximum and minimum, according to some ordering on the keys stored in the structure. Every element in a DEPQ has a priority or value.