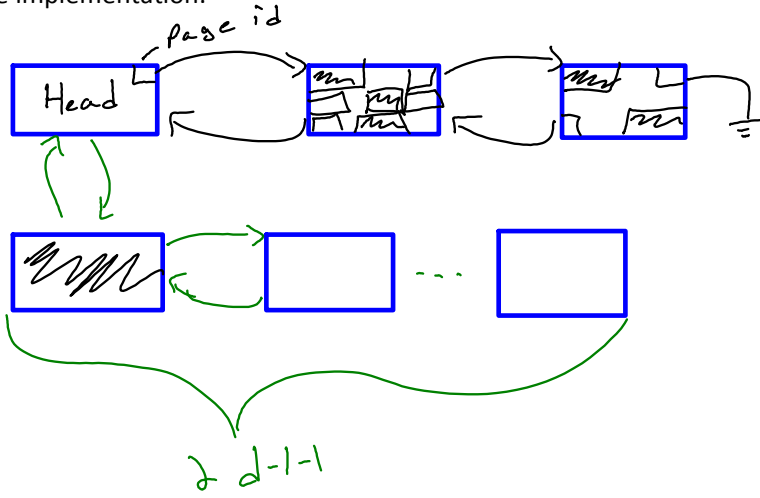
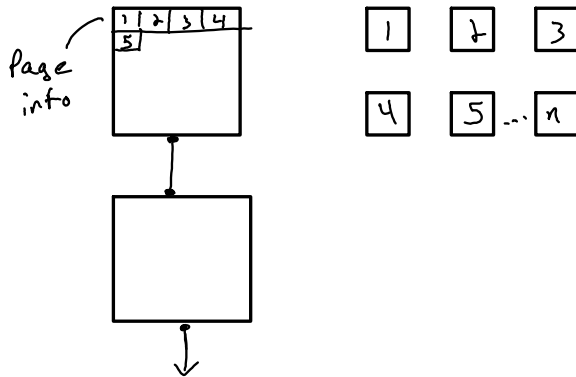


- Attribute values --> tuple
- Tuples --> page
- Page --> file (table)
 - 1) Heap file - unordered data
 - 2) Sorted file - ordered data
- Heap file implementation:



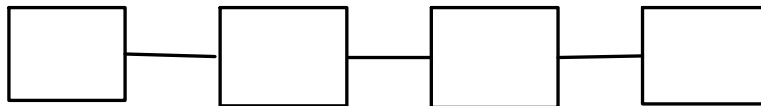
	Search	Insertion	Deletion
d-l-l	O(N)	O(N)	O(N)
2 d-l-l		O(1)	

- Directory-based



	Search	Insertion	Deletion
directory	O(N)	O(N)	O(N)

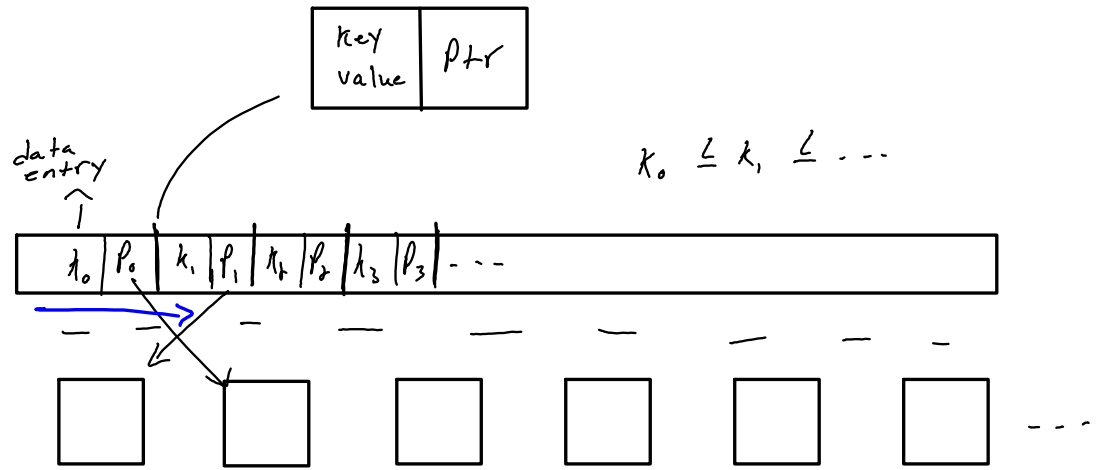
- Sorted File - tuples are organized by the order of the values of attributes



	Search	Insertion	Deletion
sorted	O(log N)	O(log N)	O(log N)

- Indexing:

1) Index = a data structure for efficient searching

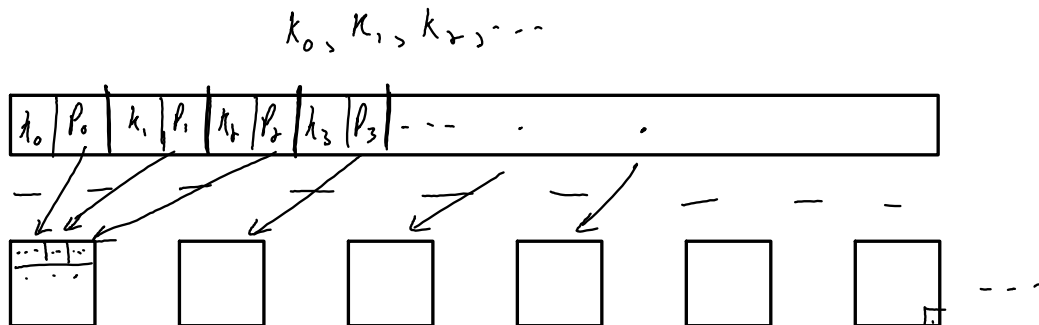


o Search key is the attribute of attributes used to build the index

2) Primary index vs. secondary index

- Primary index is the index on the primary key of the table
 - e.g. index on empid

3) Clustered index vs. unclustered index



4) Sparse vs. dense

