Please give your first and last name.	Answer Key
Name all of the types of single level ordered indexes.	Primary Secondary Clustering
What is the idea behind using a multileveled index? State your answer in terms of bfr.	Multi-level indexes cut the search space by bfr at each step of the search - the tree spreads wider faster reducing the number of block accesses to reach a record.
What does it mean to be a balanced tree?	All the leaves are at the same level, all internal nodes have both right and left hanging child nodes for each tree pointer associated with a value.
What is the difference between a tree pointer and a data pointer in a multi-level index?	A tree pointer points to the next node in the tree to help with reading through the tree. A data ptr is the address where we will find the actual record(s) containing the value from the index ptr pair.
What is the disadvantage of using physical indexing?	The data pointer must be changed if the record is moved to anot
What is meant by a dynamic multilevel index? Give two names of dynamic multilevel indexes.	A **dynamic multilevel index is one** that leaves some space in each of its blocks for inserting new entries and uses appropriate insertion/deletion algorithms for cre- ating and deleting new index blocks when the data file grows and shrinks. It is often implemented by using data structures called B-trees and B+-trees
How is a B+ tree constructed differently than a B Tree?	In a B-tree, every value of the search field appears once at some level in the tree, along with a data pointer. In a B+-tree, data pointers are stored only at the leaf nodes of the tree. A B-tree is 69% Full (Avg). A B+Tree is 50% full In a B-tree there are no repeated values. In B+tree there are some repeated values. In B-tree not all the values appear at leaf level. In B+tree all values appear at the leaves in a linked list. In B-tree, a left hanging node adheres to V(n+1) < V(n) . In B+tree, a left hanging node follows the algorithm V(n+1) =< V(n) In B-tree and B+ tree, right node: V(n+1) > V(n)