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Program 2 Report

Program 2 covers various different implementations for the indexing of a database system. My contribution to the program was the implementation of four methods in the BpTreeMap.java file. BpTreeMap.java is an implementation of a B+ tree map. The methods that I implemented were as follows:

- `public Set <Map.Entry <K, V>> entrySet ()`
- `public K firstKey ()`
- `public K lastKey ()`
- `public int size ()`

These methods all use a very similar structure. A for each loop iterates through the B+ Tree and different actions are performed depending on the method. Set adds the entries in the map to a set to be returned. FirstKey finds the entry with the smallest key and returns it. LastKey find the entry with the largest key and returns it. Size increments a counter for each element in the map and returns the it.