Assignment 4

Exercise 1
Implement a $B^+$-Tree index for your database system on top of the segments. Your tree should

...support different (opaque) key\(^1\) types. Parameterize the $B^+$-Tree with a key type and a comparator. You can assume that all key types have fixed length.

...offer the following reentrant operations

- `insert` Inserts a new key/TID pair into the tree.
- `erase` Deletes a specified key. You may simplify the logic by accepting under-full pages.
- `lookup` Returns a TID or indicates that the key was not found.

Use the concurrency control techniques from the slides “Concurrent Access (2)” and “Concurrent Access (3)”.

\(^1\)Your tree does not need to support non-unique entries.