Exercises for
Database Implementation
TUM

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Assignment 4

Excercise 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 underfull 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.