Tutorial 4 — Storage, B+ Trees

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Exercise 4-1

Does the data in a heap file necessarily lie in a contiguous region in secondary memory (disk)?

Exercise 4-2

Why would we use a B+ tree file instead of a sorted file to hold our database records?

Exercise 4-3

When might we want to use a hash file instead of a B+ tree file to hold our database records?

Exercise 4-4

When would we prefer MRU over LRU as a database cache replacement algorithm?

Exercise 4-5

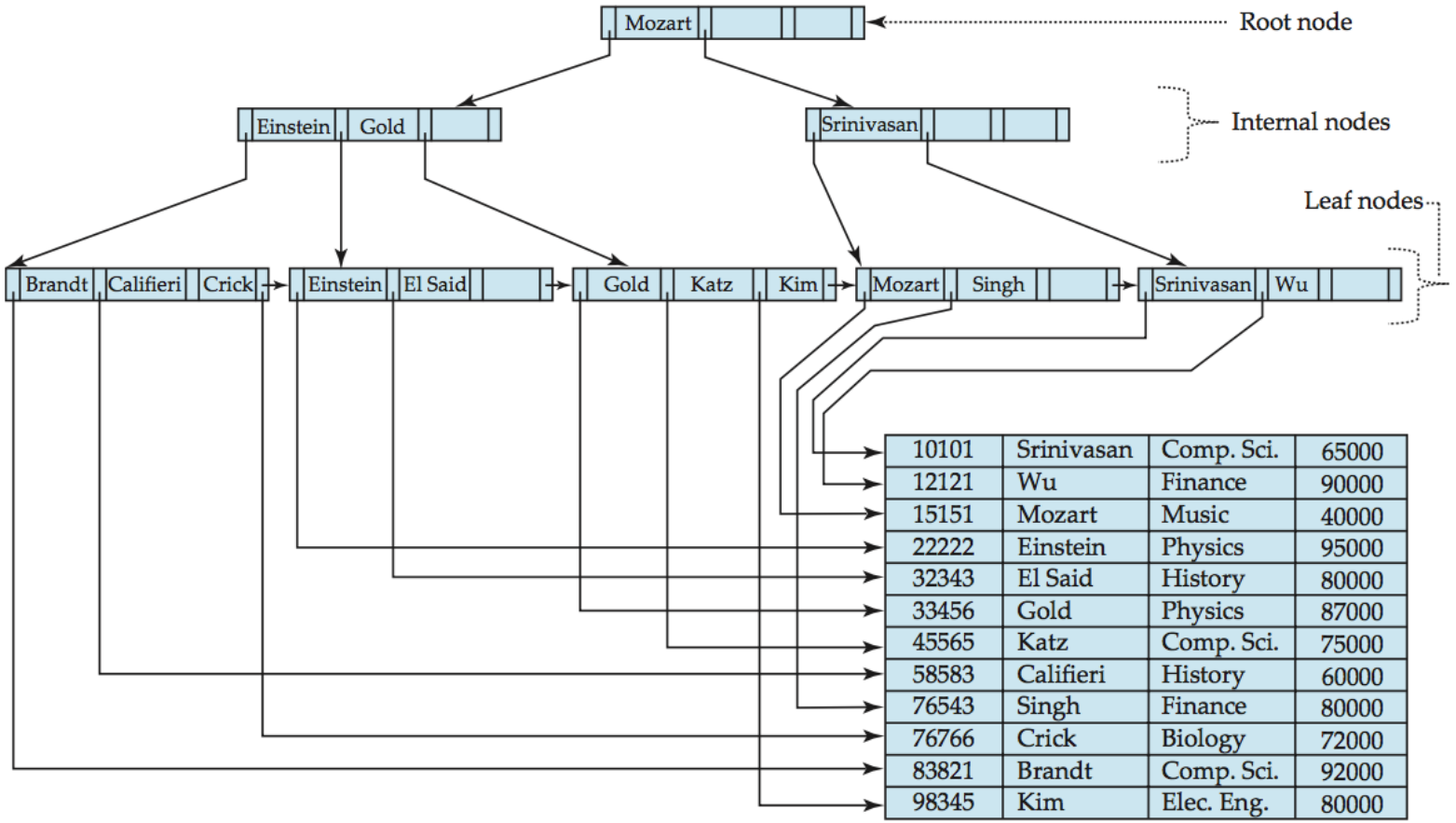
Why shouldn’t we make lots of indices over our database tables?

Exercise 4-6

Insert the following keys into the B+ tree below with degree *d*=2:

`Adams`

`Lamport`



Exercise 4-7

Delete the following keys from the B+ tree below with degree *d*=2:

```
Srinivasan
Singh
Wu
Gold
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