



Instructions



Code Examples



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Stage #NZ8

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**sarp** 11 months ago

If you don't know how to start, here are some pointers:

- You can start by finding the **root page** for the **index.sqlite\_schema** table has an entry for it just like other tables
- To read the root page of the index, you'll need to implement parsing of **index b-tree leaf cells** and **index b-tree interior cells**. These index cells contain a **payload** with a **record**. (see [diagram](#)). Each record will be composed of **country** and **rowid**. So the index will tell you which rows in the database have the country you're looking for.
- You can collect row ids for the given country by parsing index cells. You can do it smartly by comparing the **keys** (country name) of these cells and following **left** or **rightmost** pointers to determine which index page to read and parse next.
- Once you've collected a list of rowids to print, now you need to find the corresponding pages to read the contents of these database rows. You can start from the **root page** of the table (companies) that is listed in **sqlite\_schema**. Rowids will be in increasing order. When you're reading an **interior table b-tree page**, based on the first and last rowid among this page's cells, you can determine whether to read a page from one of these cells or continue with the rightmost pointer to skip these pages.

This way you can avoid a full scan and use the index to do it fast.

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Ready to run tests...

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