



I I T G O A

## CS193 Data Structures and Algorithms Lab

26 Mar 2018

# B- trees

The attached file contains a million sudoku puzzles and their solutions (from <https://www.kaggle.com/bryanpark/sudoku>).

Implement a B-tree data structure with *insert* and *search* operations. Read the puzzles into the tree. Pretty print the output.

### Sample Output

```
bash$ ./a.out
Enter the puzzle
100005007380900000600000480820001075040760020069002001005039004000020100000046352

The puzzle was found!

1 9 4 | 6 8 5 | 2 3 7
3 8 2 | 9 7 4 | 5 1 6
6 5 7 | 2 1 3 | 4 8 9
-----+-----+-----
8 2 3 | 4 9 1 | 6 7 5
5 4 1 | 7 6 8 | 9 2 3
7 6 9 | 3 5 2 | 8 4 1
-----+-----+-----
2 1 5 | 8 3 9 | 7 6 4
4 3 6 | 5 2 7 | 1 9 8
9 7 8 | 1 4 6 | 3 5 2

Time taken is XX ms
```

There will be prizes for the best 3 running times.

