Extendible Hashing

Read description of Extendible Hashing from the Raghu Ramakrishnan's textbook.

Example input 1:

First two lines describe the initialization parameters for your extendible hash table.

Line 1: Global depth

Line 2: Bucket capacity

Remaining lines of the input file describe the operations to be performed on the hash table.

2: Insert new value

3: Search a value

4: Delete a value

5: Display status of the hash table

6: Quit

For example:

- Line 3 asks you to insert value 10 in the hash table
- Line 9 asks you to search value 91 in the hash table
- Line 11 asks you to delete value 20 from the hash table
- Line 13 asks you to display the status of the hash table. You should output values for the Global Depth, Number of buckets, and list of pairs <number of keys, local depth> for each bucket. Buckets should be ordered in the ascending order of creation time. You need not output the contents of each bucket.

Directory can grow only up to the Global Depth of 20.

Deletions to be handled in a lazy manner. Only delete the corresponding key.

Note on code submission:

Make sure that all your code fits into a single file <roll number>.cpp

How your code should compile?

g++ <roll number>.cpp

How your code should run?

a.out < input_file_name

Your code should write the output on the stdout