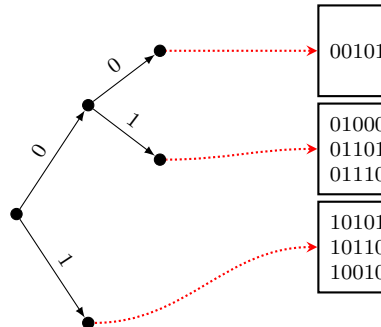# Tutorial 12: Extendible Hashing, B trees

1. Here is a trie of blocks (for extendible hashing). Assuming that up to three bitstrings fit into a block. What is the trie of blocks that results after inserting 00000, 01111, 10000?

2. Assume that the block-size is such that 13 computer-works fit into one block, and any key, value or link to a parent or subtree uses one computer-word each.

   (a) What would be the order d of a B-tree have under these conditions?

   (b) Let d be the result of part a). Show a B-tree of this order d that stores 26 key-value pairs (say the keys are A,B,...,Z).

   (c) What is the largest number of key-value pairs that could be stored in a B-tree of order d (where d is as above) with height 2?