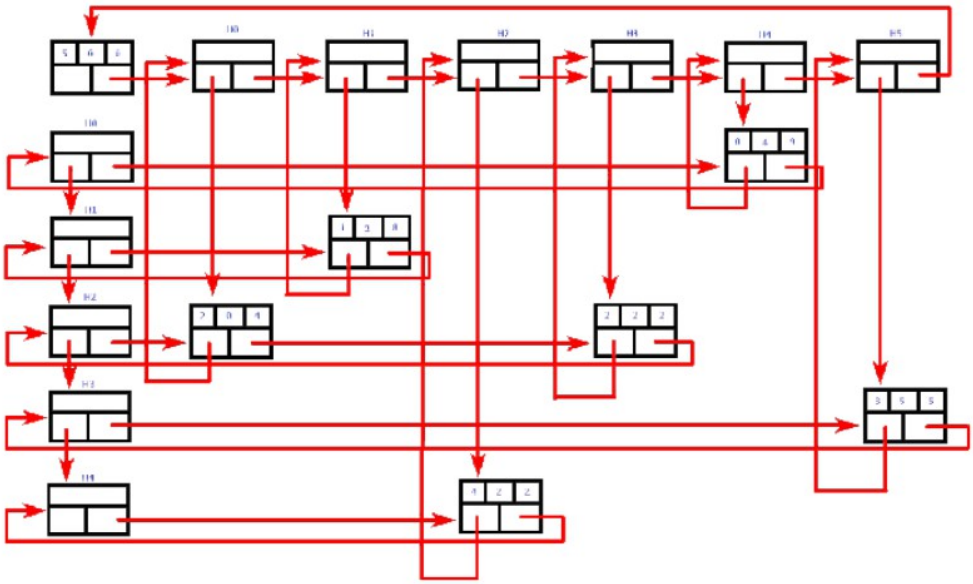
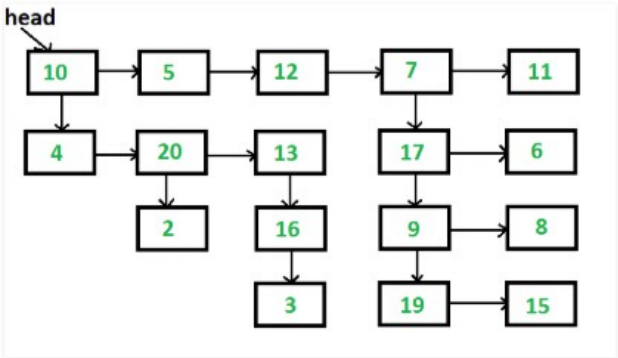
1. Write a program to multiply two sparse matrices.
2. Represent a sparse matice using multilist where the structure of the nodes is as:

And the representation is in form of



3. Given a linked list where in addition to the next pointer, each node has a child pointer, which may or may not point to a separate list. These child lists may have one or more children of their own, and so on, to produce a multilevel data structure, as shown in below figure.You are given the head of the first level of the list. Flatten the list so that all the nodes appear in a single-level linked list. You need to flatten the list in way that all nodes at first level should come first, then nodes of second level, and so on.



The above list should be converted to 10->5->12->7->11->4->20->13->17->6->2->16->9->8->3->19->15