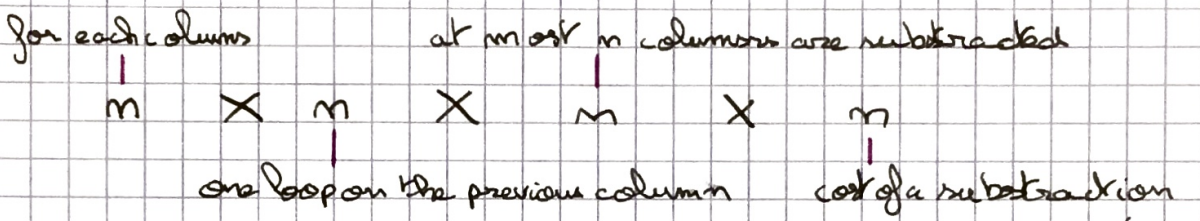
Q.2

A very naive implementation would, for each column, do a for loop on the previous columns and substract as many times as needed (at most n) the column with the same "low" index. Substracting two columns costs n with a dense matrix representation.



A naive algorithm would be in : $O(n^4)$

We haven't even tried to implement such an algorithm ...