

RadixSort

In this assignment you will implement RADIXSORT.

Input structure You are going to apply RADIXSORT to sort vectors. The input starts with an integer number which indicates the number of vectors to be sorted. Then vectors follow, one vector per line. Each vector consists of 10 digits where each digit has a value in $0 \dots 9$. Entries of a vector are separated by a space.

Output structure Output the sorted sequence of vectors, one per line. Vector i must appear before vector j in your output if and only if for some $d \in \{1, 2, \dots, 10\}$, vector i is smaller than or equal to vector j on the d th entry, and the two vectors are equal for any of the first $d - 1$ entries.