The Assignment

For this assignment, you will implement an LSB Radix sort for a set of strings.

Your input will consist of 1 string per line. The terminating newline is NOT part of the source string.
Any other character, including null \x00, could be included in the string. Furthermore, the strings are
not necessarily all the same length.

You should read in all input lines, then employ your LSB Radix sort procedure to sort the strings.

Your output should consist of a printout of 1 string per line, but in sorted order.

Please note, for this exercise we will carefully inspect your source code to ensure that you have implemented
a proper radix sort. It is not correct to use some other sorting algorithm to produce the sorted order.

Mechanics

Your program is called `lsdradix.py`.

The program reads the input list (1 string per line) from stdin.
The sorted output goes to stdout.
The typical way to run the program is:

```
python3 lsdradix.py < YOUR_INPUT_LIST_OF_STRINGS
```

What you are given:

You have starter code called `lsdradix.py`. The starter code takes care of reading the input from
stdin and writing the output to stdout. The starter code has a stub routine called `lsd_radix`. You
implement your radix sort by filling in the stub routine.

In addition, you are given 4 example inputs `x00`,`x01`,`x02`,`x03`.
The correct output for a given input have file extension `.out`.
For example, correct output for `x02` is `x02.out`.

What to turn in

Turn in a python file called `lsdradix.py`.

Starter Code

`lsdradix.py`Download lsdradix.py

Example Files and correct output

`x00` Download x00	`x00.out`Download x00.out
`x01` Download x01	`x01.out`Download x01.out
`x02` Download x02	`x02.out`Download x02.out
`x03` Download x03	`x03.out`