- Java or C can be used for writing the programs.
- Create a folder in the Desktop with your name and department and save the source files there. Example folder name Arun_CSE, Geetha_MCA etc...

1. There is a school with 100 students, and correspondingly 100 lockers, all of which start off closed. The first student opens every locker. The second student closes every other locker, starting with the second(2,4,6,etc...). The third student changes the state of every third locker, starting with the third(3,6,9 etc...). The fourth would change the status of lockers numbered 4,8,12 etc... That is, if the locker is open, it is closed, and if it is closed, it is opened. This continues until all 100 students have passed along the lockers. After the 100th student is done, which lockers are open and which are closed?
[Note : Program should work for any number of students/lockers]

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2 Write a program to accept two strings S1 and S2 and reverse the words of S1, starting from the word where the first occurrence of S2 present in S1. Same empty spaces between the words must be maintained in the output. Write the program without splitting up the strings into array of words.

Note: If you are writing this program in JAVA, don't use built-in functions like split(), indexOf(), replace(), substring(), etc present in String Class.

Examples:
Input: S1=This is a test input string S2=st
Output: This is a string input test

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3. Given an (m x n) matrix, write a program to traverse the cells and print the values present in the given path. Include necessary validation and proper error messages in case of given path has out of bounds.

5x5 matrix:
[1 2 3 4 5] (row 1)
[6 7 8 9 0] (row 2)
[1 2 3 4 5] (row 3)
[6 7 8 9 0] (row 4)
[1 2 3 4 5] (row 5)

Path Notations: ">" is going right, "v" going down, "<" is going left, "^" is going up.

Example Input 1: