Contribution of Sabbir Ahmed :-

At first I read the code, understand and try to write the algorithm. My other two members were responsible for writing code and pseudocode. It was a great team work.

Time I took:- about 1.5 hour

Algorithm :-

Step 1 :- Input N and M

step 2 :- take a boolean variable 'old' with false value.

Step 3 :- declear an array with M rows and 2 columns.

Step - 4 :- loop from 0 to (~~M-1~~) (M-1)

Step - 5 :- loop from 0 to 1
take input of one row

Step - 6 :- loop from 0 to (i-1)
check they table before?

Step - 7 :- If yes old = true
break;

Step - 8 :- check (old)

Step - 9 :- If yes, print "old"

Step - 10 :- If no, print "new"

Step - 11 :- End.