Algorithmics	Student information	Date	Number of session
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Activity 1. [Numerical square]

YOU ARE REQUESTED TO:

Design and implement an algorithm using the backtracking technique to solve this problem optimally:

a) Implement the algorithm in Java (NumericSquareOne.java) in such a way that it calculates, for a given board input, a solution in the most efficient way.

b) Implement the algorithm in Java (NumericSquareAll.java) in such a way that it calculates, for a given board input, all the possible solutions.

Do you think this problem could be solved optimally using some of the previous techniques seen during the course?

The performance of the algorithm could be improved by using pruning, ending the branches that don't lead to a solution.

Test case	Time for first solution (ms)	Time for all solutions (ms)	Number of solutions found
Test00	LoR	LoR	1
Test01	LoR	LoR	12
Test02	LoR	LoR	1
Test03	LoR	LoR	3
Test04	LoR	LoR	2
Test05	LoR	LoR	5
Test06	LoR	50	83
Test07	49	OoT	-