ESTRUCTURA DE DATOS 2
Código ST0247

Laboratory practice No. 2: Brute force o Exhaustive search

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3) Practice for final project defense presentation

3.1 In the algorithm, multiple parameters are received, such as the node you want to reach, the minimum cost, an arrangement with the visited nodes, among others. The first is to mark as true the node that is being traveled, then, it is asked if the node that is being traversed is equal to the initial node, if so, the minimum cost is updated and returned, otherwise, we enter a cycle in which the children of a node will be traversed, and the initial process will be repeated. This is done with all possible paths between one node and another, thus ensuring the minimum cost of a journey.

3.2 The complexity of the algorithm is O(VE), where V means number of vertices and E number of edges.

3.3 The complexity of the algorithm depends on both the number of vertices and the number of edges, therefore there is a big difference between whether the graph is complete or not, however we consider that the algorithm can execute a graph with 50 nodes in a reasonable time if the graph is not complete, otherwise the algorithm may take several minutes to complete a solution.

3.4 The algorithm calculates the possible permutations of the queens on the board, and then it starts deciding if each possible board is a solution, taking into account the holes in the board.
3.5 O(n!)
3.6 n is the number of queens.

4) Practice for midterms

4.1 4.1.1 if(actual>maximo)
4.1.2 $O(n^2)$

4.2 4.2.1 ordenar(arr, k+1)
4.2.2 O(n!)

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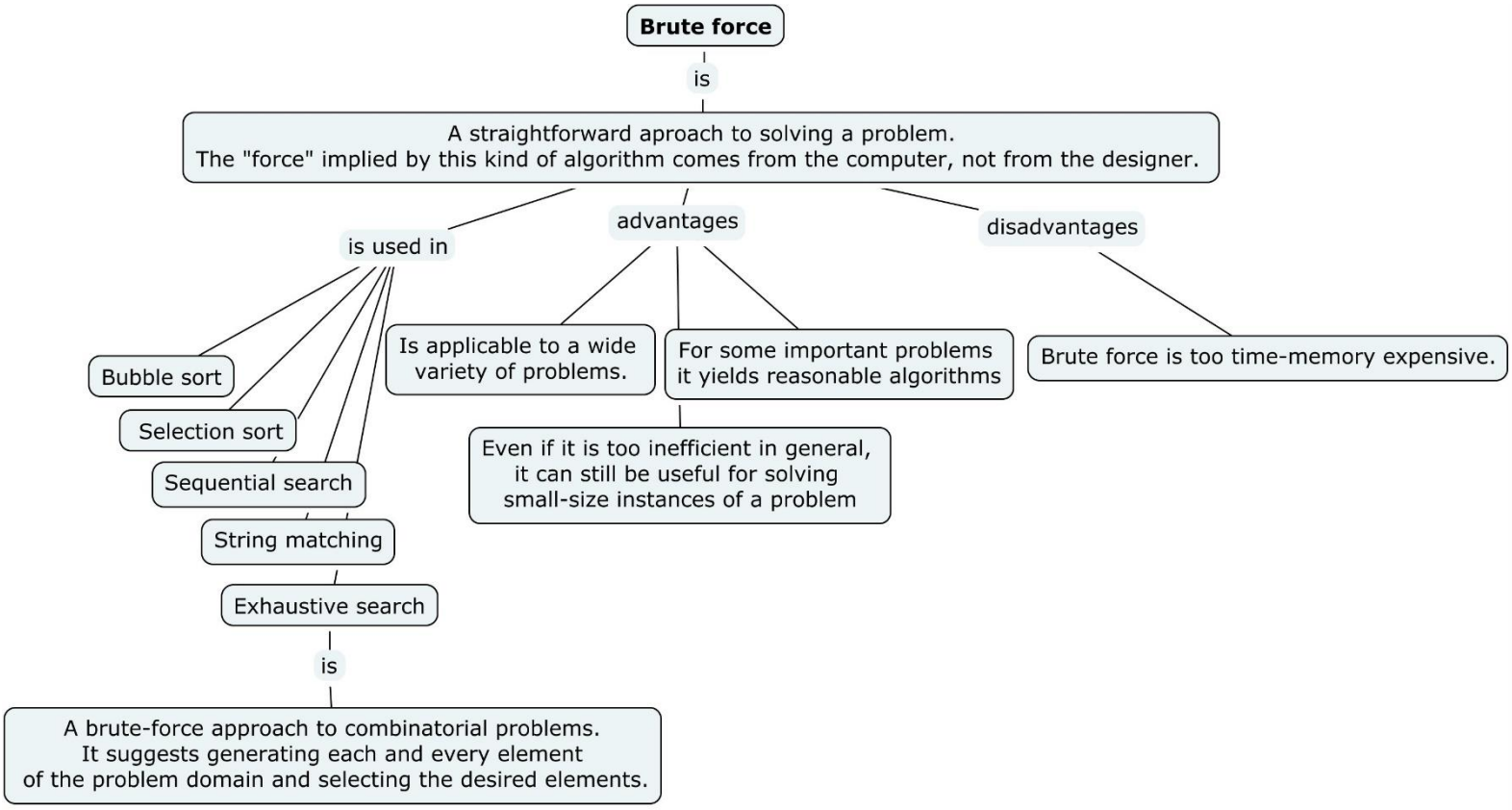
4.3 4.3.1 return i-m;
4.3.2 return n;
4.3.3 O(n*m)

4.4 4.4.1 temp % 10
4.4.2 B. $O(|N-M|)*\log_{10}(M)$

4.5 4.5.1 j = i+1
4.5.2 left==right

5) Recommended reading (optional)



6) Team work and gradual progress (optional)

6.1 Meeting minutes

Member	Date	Done	Doing	To do
Sebastián	23/02/2019	**Think about a solution to point 1**		Implement a solution to point 1

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Yhoan	23/02/2019	**Think about a solution to point 2**	Solution point 1	Implement a solution to point 2
Sebastián	23/02/2019	**Implement a solution to point 1**	Test to point 1	Make the laboratory report
Yhoan	23/02/2019	**Test point 1 and implement a solution to point 2**	Laboratory report	Practice for midterms
Sebastián	24/02/2019	**Laboratory report and practice for mindterms**		Test point 2
Yhoan	24/02/2019	**Test point 2**		recommended reading
Yhoan	24/02/2019	**recommended reading**		upload the laboratory
Sebastián	24/02/2019	**upload the laboratory**		

6.2 History of changes of the code

History changes of code		
Version	**Code**	**Status**
1.0	1	
2.0	1	
3.0	1	
1.0	2	
2.0	2	
3.0	2	
4.0	2	

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