

# UNIVERSIDAD EAFIT SCHOOL OF ENGINEERING DEPARTMENT OF INFORMATICS AND SYSTEMS

Code: ST245

Data Strucures
1

# Laboratory practice No. II: Brute Force

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#### 3) Practice for final project defense presentation

1. backtraking is an algorithm widely used to solve the problem of n-queens, proposed by Edsger Dijkstra in 1972 to illustrate the power of so-called structured programming. The search for brute force should not be confused with backtracking, since this is a method that discards many sets of solutions, without explicitly listing each one of them.

Value of N	Execution Time
4	0,1s
5	0,1s
6	0,1s
7	0,1 s
8	0,1s
9	0,2s
10	0,3s
11	0,3s
12	0,6s
13	0,6s
14	0,8s
15	1s
16	1s
17	4s
18	6s
19	7s
20	10s
21	10s
22	15s
23	20s
24	40s
25	70s

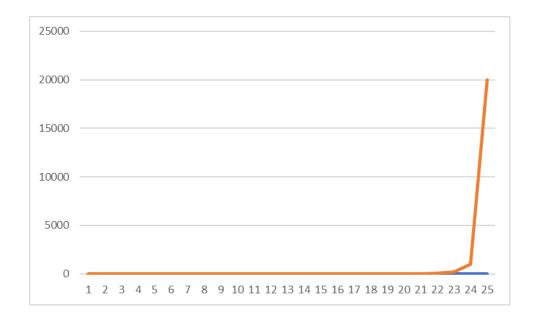


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26	180s
27	1000s
28	20000s
29	Se demora mas de 50 min
30	Se demora mas de 50 min
31	Se demora mas de 50 min
32	Se demora mas de 50 min
N	O(n!)



## 4) Practice for midterms

- **1.** a)  $actual > maximo, b) O(n^2)$
- **2.** *a)* arr, k *b)* $O(n^2)$
- **3.** *a)* i, n b) O(N-M)
- **4.** a) i , b) b