

## Laboratory practice No. 2: Brute Force

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### 3) Practice for final project defense presentation

1. Other techniques exist such as backtracking, greedy algorithm, multithreaded search and others.
- 2.

Queens	
4	1
5	1
6	1
7	1
8	2
9	5
10	17
11	98
12	499
13	3353
14	2329
15	205336
16	1259397
17 and above	More than 50 minutes
N	$O(N^N)$

3. The idea for making the n queens problem is first of all placing the queens in all the possible positions in the chess table. After this, the positions in which the queens are will be checked in order to know if they collide. If they collide that distribution is not correct so it moves on to the next table.
4. On the unfinished code the Data structure used was the a matrix in order to represent the chess table. In our belief, the whole problem could be soled with the use of the matrix.
5. .
6. N is the amount of queens that want to be placed in the table.

### 4) Practice for midterms

1.
  - Actual > maximo

- $N^2$
- 2.
  - *Return(arr, k+1)*
  - $O(n!)$
- 3.
  - *Return i*
  - *Return n*
  - $O(n*m)$
- 4.
  - *Temp/10*
  - *b*
- 5) *Recommended reading (optional)*
  - a) Title
  - b) Main ideas
  - c) Concept map

6) **Team work and gradual progress (optional)**

- a) 30
- b) History of changes of the code
- c) History of changes of the report