All queen variables – Q1, Q2, …Qn are referenced in the code as 0, 1, 2… n-1. So they are used as indexes to lists/dictionaries that holds their assignments, domain, constraints, etc.

In the backtracking algorithm, the variable selection is done using the minimum-remaining values (MRV) heuristic. Since, we’re finding out all possible solutions and not just one solution, no heuristic is applied to the value ordering and thus, will be taken sequentially from the variable’s domain.

The output file names – CFILE and RFILE are assumed to be taken as inputs without any file extension. “.txt” is appended in the code to these file names.

The solutions in RFILE are written in two ways for understanding –

1. A list of values that each of the variable will eventually take from their respective domains.
2. A N x N chessboard representation where the queens’ positions are indicated by 1 and the remaining tiles are 0.

All other information – no. of backtracking steps, real time etc. are appended at the end of the RFILE after the solutions are displayed.