

A decorative graphic on the left side of the slide, consisting of a network of light blue lines and circles, resembling a circuit board or a neural network, set against a dark blue background.

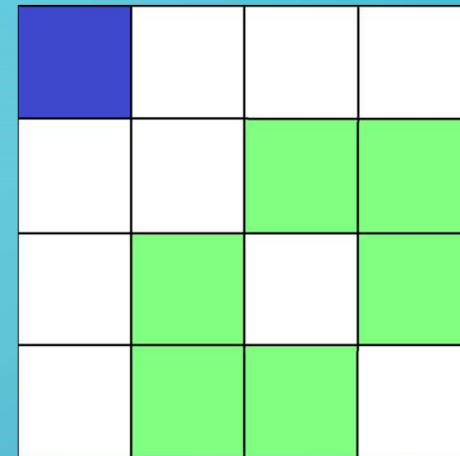
N-QUEENS THROUGH CSP IN KOTLIN

COREY REICHEL

N-QUEEN'S PUZZLE

Place N queens on a $N \times N$

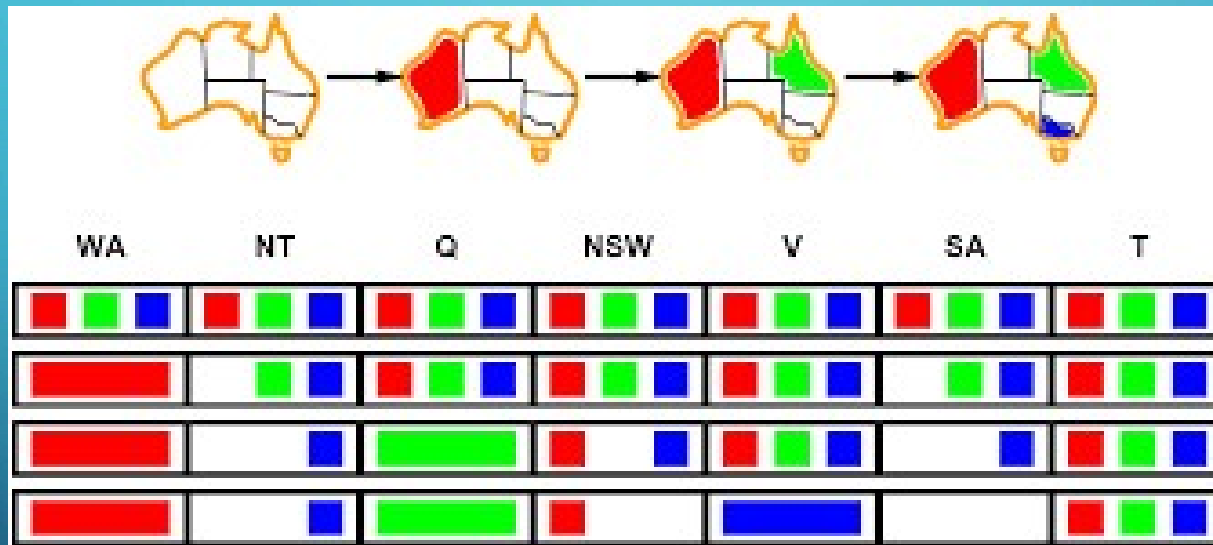
Cannot occupy the same Row, Column, Diagonal, Anti-diagonal



CONSTRAINT SATISFACTION PROBLEMS

- State: All variables and their values that denote a static environment
 - Number of queens, where they are placed etc.
- Action: How to move from state to state
 - Place a queen
- Constraints:
 - Row, col, diag, anti diag,
- Solution: A state that has N queens and follows the constraints

FORWARD CHECKING



ARC CONSISTENCY

- After initial trim (from forward checking)
- Check the implications of the current state
 - Repeat until no new implications arise