# OS MINI PROJECT - Synopsis

**Title:** Sudoku Solution Validator

## Objective:

This project consists of designing a multithreaded application that determines whether the solution to a *Sudoku* puzzle is valid. A *Sudoku* puzzle uses a 9 × 9 grid in which each column and row, as well as each of the nine 3 × 3 subgrids, must contain all of the digits 1 · · · 9.

This application can be multithreaded in several different ways. The strategy is to create threads that check the following requirements:

- A  thread  to check that each column contains the digits 1 through 9
- A thread to check that each row contains the digits 1 through 9
- Nine threads to check that each of the 3 × 3 subgrids contains the digits 1 through 9

This would result in a minimum of 11 (or more) separate threads for validating a Sudoku puzzle.

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