Homework 1_程式修改

309553048_陳柏丞

- **Execution：**

  - Ubuntu 18.04.5 LTS
    - g++ -std=c++17 -o solver main.cpp
    - ./solver sudoku_9x9.txt out ./MiniSat_v1.14_linux

- **Different Part：**

```cpp
// Delete out_tmp
std::string str_tmp_del = "rm out_tmp";
const char *tmp_del = str_tmp_del.c_str();
system(tmp_del);

// Print
for(int i=0; i<n; i++)
{
    for(int j=0; j<n; j++)
    {
        std::cout << re[i][j] << ' ';
    }
    std::cout << "\n";
}

// Write result into output_file
std::ofstream Out(output_file);
if(ss == "UNSAT")
{
    std::cout << "NO" << "\n";
    Out << "NO" << "\n";
    return 0;
}
else
{
    for(int i=0; i<n; i++)
    {
        for(int j=0; j<n; j++)
            Out << re[i][j] << ' ';
        Out << "\n";
    }
}
Out.close();
```

- **Result：**

```
/home/nfs_home/burnie/cpp/algo/HW01 ▷ ./solver sudoku_9x9.txt out ./MiniSat_v1.14_linux
==================================[MINISAT]==================================
| Conflicts |        ORIGINAL      |              LEARNT              | Progress |
|           | Clauses Literals |    Limit Clauses Literals  Lit/Cl |          |
============================================================================
|         0 |     904    11593 |      301        0        0     nan |  0.000 % |
============================================================================
restarts               : 1
conflicts              : 1                (141 /sec)
decisions              : 3                (424 /sec)
propagations           : 809              (114282 /sec)
conflict literals      : 1                (0.00 % deleted)
Memory used            : 1.79 MB
CPU time               : 0.007079 s

SATISFIABLE
9 6 3 1 7 4 2 5 8
1 7 8 3 2 5 6 4 9
2 5 4 6 8 9 7 3 1
8 2 1 4 3 7 5 9 6
4 9 6 8 5 2 3 1 7
7 3 5 9 6 1 8 2 4
5 8 9 7 1 3 4 6 2
3 1 7 2 4 6 9 8 5
6 4 2 5 9 8 1 7 3
--------------------------------------------------------------------------
/home/nfs_home/burnie/cpp/algo/HW01 ▷ cat out
9 6 3 1 7 4 2 5 8
1 7 8 3 2 5 6 4 9
2 5 4 6 8 9 7 3 1
8 2 1 4 3 7 5 9 6
4 9 6 8 5 2 3 1 7
7 3 5 9 6 1 8 2 4
5 8 9 7 1 3 4 6 2
3 1 7 2 4 6 9 8 5
6 4 2 5 9 8 1 7 3
```