Learning outcomes:

- Getting familiar with the IBM ILOG OPL IDE
- Model the timetabling problem based on the graph coloring example in the IBM ILOG library
- Model and compare the three different models for the 8Queen problem.

Task 1: The map coloring problem

a) load the example of “color” in the IBM ILOG library, study the model and the problem;
b) get familiar with the syntax in IBM ILOG
c) model and solve the map coloring problem used in the lecture (given below).
Task 2: The 8Queen problem

a) build the three models discussed in the lecture for solving the 8Queen problem; syntax maybe used: forall(ordered i, j in range); div; mod;

b) answer the following questions

1. What is the solution obtained from the three models, respectively?

2. What is the running time from the three models?

3. How many fails are encountered during the search in the three models?

4. How many constraints, variables, branches are interpreted in the three models during the search?

- After the lab, please send me (rxq@cs.nott.ac.uk) the three .mod files for the 8Queen problem in a compressed file, named as your username.