CIS 343 – Structure of Programming Languages
Winter 2016, 3/22/2016

Programming Assignment #5
Minesweeper Game in Ruby
Due Date: Tuesday, April 12, 2016

Project Goals

- Use modules and classes in Ruby
- Implement classes in Ruby

Description

For this project, you will implement a Ruby version of the Minesweeper game you implemented in C for Project 1.

You are provided with a Ruby source file named `Minesweeper.rb` that contains the code for the following:

- `Constants` module that defines several constants used in the game
- `Cell` class that represents a single cell on the minesweeper board
- `Minesweeper` class that represents the minesweeper board and contains game logic
- Driver code (main method) and other helper methods used in the main method

Your task is to implement the following methods in the `Minesweeper` class.

- `place_mines_on_board()`
- `fill_in_minecount_for_nom_mine_cells()`
- `select_cell()`
- `get_nbr_neighbor_mines()`
- `nbr_visible_cells()`
- `set_immediate_neighbor_cells_visible()`
- `set_all_neighbor_cells_visible()`

Similar to the C implementation, you can choose to implement an easier or more realistic game of minesweeper by implementing **only one of the following two methods**:

- `set_immediate_neighbor_cells_visible()`
- `set_all_neighbor_cells_visible()`

Please **DO NOT MAKE CHANGES** to the rest of the code in `Minesweeper.rb` file.

Executing Ruby Programs on EOS

To run the main() method in the `Minesweeper` class on EOS machines, do the following:

```
$ ruby ./Minesweeper.rb
```

Deliverables

1. **Upload only `Minesweeper.rb` file on Blackboard by midnight on due date.**
2. **I will use the submission date/time on Blackboard as your official submission date/time.**
3. **It is your responsibility to make sure the submission on Blackboard went through successfully.**
4. **I will compile, run, and test your program on EOS when grading.**
5. **Late penalty (10% per day) applies after due date.**