

Gebze Institute of Technology
Department of Computer Engineering
CSE 241/501
Object Oriented Programming
Fall 2015
Homework # 6
Due date Dec 11th 2015

In this homework, you will re-write your game of reversi (HW4 and HW5) program in C++ using dynamic memory operations.

You will have your **Cell** class as in HW4. For the **Reversi** class, you will hold **Cell * gameCells;** as a data member. All your board operations will be on this dynamic array.

The class **Reversi** will also have the following features and functions

- There is no limit for the board. Your game will resize according to the parameter for the constructor.
- There should be at least 3 constructors.
- The class will have functions to return the current width and height of the board
- The class will have functions to resize the board. When the board is resized, the game starts from the beginning.
- The class will have a function that displays the current board on the screen
- The class will have two functions named play that plays the game for a single time step. First function does not take a parameter and it plays the computer. The second function takes a cell position and it plays the user.
- The class should have a function that returns if the game ended.
- The class should have a function named playGame. This function plays the game by asking the user the board size first then asks the user to play and the computer plays, etc.
- The class will have a static function that returns the number of living Reversi games.
- The class will have a function that takes another object **Reversi** as parameter and compares the reversi games. It returns true if the first game is better for the user, otherwise it returns false.
- Operator++ (both postfix and prefix) will advance the game **by one step for computer**. It will return the expected results.
- **Stream insertion operator that** prints the game on the screen
- Any other functions (public or private) needed.

Use your name space. Use separation of interface and implementation.

Write your main function to test both classes. **Especially test assignment operators, copy constructor.** Send Reversi objects to functions using call by reference and call by value.