Course Project No. 10
Обектно Ориентирано Програмиране C#.NET

Get 15

Acceptable Programming Languages: **C#.NET**
Deadline: **February   For the final exam**
Instructor   **Dr. Evgeny Krustev**

Problem Statement:

The game starts with **nine numbers 1,2,3,4,5,6,7,8 and 9.** .

Rules:

You and your opponent **take alternate turns**, each taking a number from the above interval.

Each number can be taken only once: If you opponent has selected a number, you can no longer take it.

Winning criteria:

The first person to have any three numbers that total 15 wins the game

Example:

You	1		5		3		8		
Opponent		6		9		7		2	

The Opponent Wins!

Make use of web service presented in Lecture 15 and **develop a WPF solution to the above described problem**. Note, that the criteria for a winning strategy can be adapted to the winning strategy of a TicTacToe game.

Your solution must provide a **WPF** GUI for both players. The design of the GUI must be as much as **intuitive** and **validate the rules of the game**. Use similar notifications and exchange of messages between both players as those used in the sample solution.

Note: There should be a User control (Windows form or WPF) for representing the interactive GUI.

Evaluation:

Your project will be evaluated on the following **general points**:

- **Sophistication/complexity/originality** of the problem being solved/investigated and of the **solution(s)/approaches** considered.
- **Demonstrated ability to extract/analyze** concurrency-related problems/issues from a general problem/area of interest.

- **Clarity of explanations, and for implementations programming skill/quality**. Your report **(in Bulgarian!)** should be well written and free of grammatical and spelling errors. **Programs** must be **well-commented and in a professional style**.
- **Awareness of related work.** Others have considered the same or similar problems before you. Your work does not have to be novel, but you should be able to contextualize your approach. Be sure to explain how each referenced work is *related* to your work. Note that a 5-minute *Google* search will not be adequate; if you are unfamiliar with the required textbooks for the course:
- **Completeness** of the project.

Deliverables: *The files with* :

1. the source code
2. the executable code
3. the instructions for compiling your source code
4. the report explaining the data structures and the algorithm implementation, describe things such as how your code has been tested, limitations of your code, problems encountered, and problems remaining
5. any files used to test the implementation of the program with an explanation about it included in the report.

References:
[1] **Литература, използване в лекциите и практическите занятия от курса**
[2] **Wei-Meng Leel** "Programming Sudoku", APress , ISBN1-59059-662-5 **2006**