*C# OOP Team Work*

*Bookmaker-Project documentation*

Team: “Lapis Lazuli”

# *Team members list:*

1. Калин Маринов (kalimar)
2. Николай Димитров (timenov)
3. Владимир Василев (Vlado\_XXX)
4. Росица Бъндева (rossi.bundeva)
5. Георги Гроздев (vipereli)

Project

Design and implement an Object-Oriented Application with graphical user interface (GUI): Bookmaker Project

# *Introducing the application*

***Bookmaker project*** is a C# object-oriented application with graphical user interface that uses ***XAML*** (Extensible Application Markup Language) and ***WPF*** (Windows Presentation Foundation) technology. It shows us how with using C# language and best practices for object-oriented programming and various technologies providing GUI can be created an application for any kind of purpose.

Bookmaker Project is a type of calculator that calculates the profits of a number of sports events. The user enters data for a respective sports event in a following format:

***<Date and Time>,******<Type of Sport>****,* ***<Country>****,* ***<Home Team>****,* ***<Visiting Team>****,* ***<Coefficient>***

Once the user enters data for a sporting event, it can calculate how much his profit is, of course depending on the amount of ***coefficient*** and ***bet*** that are played. The application provides creating a table of multitude played sports events and calculate their total profit. There is an option to remove a row (*one or more*) from already created table with different sports games and to write/read them to/from text file.

# *Class Diagram*

# *Code structure*

## Game.cs

It’s an ***abstract class*** – base for all sports. Has a decimal property ***coef*,** Countries type of data ***country*** which is taken from enumeration named Countries, ***dateAndTime*** and ***match*** properties.

## Derived classes – Football.cs ; Volleyball.cs ; Basketball.cs ; Tennis.cs ; Handball.cs

All these classes inherit the base class ***Game.cs*** and get all its properties***.*** They represent different types of sports.

## ReadWriteFile.cs

A ***static class*** that provides methods for ***reading***/***writing*** - ***to***/***from*** the file.

## Countries.cs

An enumeration that keeps values represents country names.

## GameFactory.cs

The role of this class is to create sports events of a different type with corresponding parameters and values of their properties.

## Calculator.cs

Provides various types of arithmetic operations related to calculation of coefficients and profits from single column or combinations

# *SVN Repository*

*URL*: <http://bookmaker-project.googlecode.com/svn/trunk/>

*Username*: [vladimir.pl.vasilev@gmail.com](mailto:vladimir.pl.vasilev@gmail.com)

**Note:**  *This documentation reflects the current state of the* ***Bookmaker Project*** *sample at the time of writing!*