# Refactoring Documentation for Project “Balloons Pops”

**Team "Sodium"**

1. Redesigned the project structure:
   * Renamed the project to **Balloons-Pops**.
   * Renamed the namespace from **Balloons\_Pops\_Game** to **BalloonsPopsGame**.
   * Renamed the main class **Program** to **BalloonsPops**, and the file as well.
   * Renamed the struct **structOfRow** to **Score**.
   * Extracted each class in a separate file with a good name: **Score.cs** , **Board.cs,**
   * Added public modifiers to the methods in **Board.cs,** and to the class itself**.**
2. Reformatted the source code:
   * Removed all unneeded empty lines, e.g. in the method **printMatrix()**.
   * Removed unneeded useless comments in the code.
   * Inserted empty lines between the methods.
   * Split the lines containing several statements into several simple lines, e.g.:

|  |  |  |
| --- | --- | --- |
| **if (input[i] != ' ') break;** | **🡪** | **if (input[i] != ' ')**  **{**  **break;**  **}** |

* + Formatted the curly braces **{** and **}** according to the best practices for the C# language.
  + Put **{** and **}** after all conditionals and loops (when missing).
  + Character casing: variables and fields made **camelCase**; types and methods made **PascalCase**.
  + Formatted all other elements of the source code according to the best practices introduced in the course “[High-Quality Programming Code](http://codecourse.telerik.com/)”.
  + …

1. Renamed variables:
   * In class **Fifteen**: **number** 🡪 **numberOfMoves**.
   * In **Main(string[] args)**: **g** 🡪 **gameFifteen**.
   * …
2. Renamed methods:
   * In class **Board** : **Gen** 🡪 **Generate.**
3. Introduced constants:
   * **ScoreBoardSize = 5**
   * **GameBoardRows = 5**
   * **GameBoardCols = 10**
   * …
4. Extracted the method **GenerateRandomGame()** from the method **Main()**.
5. Introduced class **ScoreBoard** and moved all related functionality in it.
6. Moved method **GenerateRandomNumber(int start, int end)** to separate class **RandomUtils**.

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