Refactoring Documentation for Project “King Survival - 5”

1. Redesigned the project structure:
   1. Renamed the project to
   2. Renamed the main class BaseGame to GameFifteen
   3. sdf
   4. sd
   5. f
   6. sd
   7. f

 Renamed the project to Game-15.

 Renamed the main class Program to GameFifteen.

 Extracted each class in a separate file with a good name: GameFifteen.cs, Board.cs, Point.cs.

 …

2. Reformatted the source code:

 Removed all unneeded empty lines, e.g. in the method PlayGame().

 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”.

 …

3. Renamed variables:

 In class Fifteen: number  numberOfMoves.

 In Main(string[] args): g  gameFifteen.

4. Introduced constants:

 GAME\_BOARD\_SIZE = 4

 SCORE\_BOARD\_SIZE = 5.

5. Extracted the method GenerateRandomGame() from the method Main().

6. Introduced class ScoreBoard and moved all related functionality in it.

7. Moved method GenerateRandomNumber(int start, int end) to separate class RandomUtils.

8. …