**Refactoring Documentation for Project “Balloons Pop”**

**Team Silicon**

1. Redesigned the project structure

* Renamed the project to “Balloons Pop”.
* Renamed the main class **baloncheta.cs** to **BalloonsPop.cs**
* Extracted each class in a separate file with a good name: **Balloon.cs**, **CommandParser.cs**, **CommandType.cs**, **Coordinates.cs**, **Engine.cs**, **Person.cs**, **PersonScoreComparer.cs**, **ScoreManager.cs**.

1. Reformatted the source code

* Removed all unneeded empty lines in all classes.
* Inserted empty lines between methods.
* Character casing: variables and fields made **camelCase**; types and methods made **PascalCase**.
* Split the lines containing several statements into several simple lines.
* Formatted the curly braces **{** and **}** according to the best practices for the C# language.
* Put **{** and **}** after all conditionals and loops (when missing).

|  |  |  |
| --- | --- | --- |
| **if (condition)**  **DoSomethingMethod();**  **MoreCode();** | **🡪** | **if (condition)**  **{**  **DoSomethingMethod();**  **}**  **MoreCode();** |

* Added empty lines after curly brackets for improved readability.

|  |  |  |
| --- | --- | --- |
| **if (condition)**  **{**  **…**  **}**  **return result;** | **🡪** | **if (condition)**  **{**  **…**  **}**  **return result;** |

* Explicitly specified access modifiers for all classes, class members and methods.
* Removed blank lines after opening curly brackets.
* Added ‘.this’ prefixes to all items that are member of classes for clarity.
* Simplified complex expressions with smaller simple pieces.

1. Renamed variables

* In class **Engine**: **broya4 🡪 remainingBalloons**, **count 🡪 numberOfShootings**, **gb 🡪 board**
* In class Coordinates: **x 🡪row**, **y 🡪 column**.

1. Extracted all operations from Main() to Engine.Run().
2. Introduced classes:

* CommandParser and moved all related functionality in it.
* Engine and moved all related functionality in it.
* Balloon.

1. Moved method Command.TryParse() to separate class CommandParser.