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| Refactoring Documentation for Project “Game 15” Team “Gallium”   1. Redesigned the project structure:    * Renamed the project to **Game15**.    * Renamed the main class **Program** to **GameFifteen**.    * Extracted each class in a separate file with a good name: **GameFifteen.cs**, **Board.cs**, **Point.cs**.    * Extracted fields like a class and moved related functionality in it: GameField, ScoreBoard, Coordinates. 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](http://codecourse.telerik.com/)”.   + Inspected project with **StyleCop**, **JustCode** and fixed all warnings.  1. Renamed Method and variables:    * **In class Game15:**    * najDobrite🡪 numberOfMoves.    * IskamProizvolnaDyska 🡪 RandomField.    * Zapochni -> Run    * Pole -> GameField    * Nachalo - > Initialize    * ProverkaGamefieldSolved -> GameField.IsSolved    * PrintGameField -> GameField.ToString()    * gameIsFinished -> IsGameInProgress    * PrintBestOfTheBest -> ScoreBoard.GetTopPlayers    * AddToScoreBoard -> ScoreBoard.Add    * TryToMoveNumber – splitted to CanMoveNumber and MoveNumber    * **In class Kordinati**    * Class Kordinati -> Coordinates    * ProverkaNeighbout -> CheckNeighbour 2. Extracted methods.    * Zapochni -> to Engine - > Run    * PrintGameField -> to GameField - > ToString()    * AddToScoreBoard -> to ScoreBoard -> Add    * proverkaGameFieldIsSolved -> to GameField -> IsSolved    * PrintBestOfTheBest -> to ScoreBoard -> GetTopPlayers    * TryToMoveNumber -> to GameField -> CanMoveNumber and MoveNumber    * IskamProizvolnaDuska -> to GameFiled -> RandomField 3. Created new methods and classes.    * **In GameField:**    * Only exctracted methods from Game-15    * **In ScoreBoard:**    * GetScoreBoard    * GetTopPlayers(extracted and renamed)    * Add( extracted and renamed)    * **In Communicator**    * GetNumber    * DisplayMessage    * GetName    * DisplayIntroMessage    * **In Coordinates:**    * CheckNeighbour(renamed and refactored)    * CheckBottom(extracted from CheckNeighbour)    * CheckTop(extracted from Checkneighbour)    * CheckRight(extracted from CheckNeighbour)    * CheckLeft(extracted from CheckNeighbour)    * **In Player:**    * ToString    * **In Engine**    * Initialize(renamed)    * Run(renamed)    * Readcommand(extracted) |
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